BIOMÉRIEUX

2018 REGISTRATION DOCUMENT AND ANNUAL FINANCIAL REPORT

PIONEERING DIAGNOSTICS

Items in the annual financial report are identified in the contents using the AFR symbol.

AFR

2018 REGISTRATION DOCUMENT

including the annual financial report

French joint stock company (société anonyme)
with share capital of €12,029,370

Registered office: Marcy l'Etoile (69280)

Registered in Lyon, France
under number 673 620 399

This is a free translation into English of the Registration document issued in French and is provided solely for the convenience of English speakers. For legal purposes, French version prevails on this English version and is to be given priority of interpretation.

AUTORITÉ DES MARCHÉS FINANCIERS
AMF

This Registration Document was filed with the French financial markets authority *(Autorité des marchés financiers - AMF)* on, March 14, 2019 in accordance with Article 212-13 of the AMF's General Regulation.

This document may be used in support of a financial transaction if it is accompanied by an offering circular *(note d'opération)* approved by the AMF.

This document was drawn up by the issuer and its signatories assume responsibility for its content.

A FAMILY COMMITMENT TO THE FIGHT AGAINST INFECTIOUS DISEASES

bioMérieux is first and foremost a human and scientific adventure that began more than 55 years ago. Its expertise and its commitment to expand the frontiers of knowledge in biology are grounded in an entrepreneurial adventure that has been ongoing for more than one century.

In 1897, Marcel Mérieux, who had studied with Louis Pasteur, founded a laboratory in Lyon where he developed the first anti-tetanus sera.
This first Institut Mérieux laid the foundations for a bio-industrial structure that was to leave its mark on vaccinology then the diagnosis of infectious diseases on a global scale.

bioMérieux, whose registered office is located in Marcy l'Etoile, France, was created in 1963 by Alain Mérieux and today counts over 11,000 employees.
The Company is present in 43 countries and serves more than 160 countries thanks to its distributor network.
It generates over 90% of its revenue internationally.

Since 2014, Alexandre Mérieux, the great-grandson of Marcel, has taken over the helm of the family company as Chief Executive Officer. In December 2017, he was appointed Chairman and Chief Executive Officer by the Board of Directors.

An Institut Mérieux Company

bioMérieux is 59% owned by Institut Mérieux. Within the scope of a global, long-term vision, Institut Mérieux contributes its experience in industrial biology to improving medicine and public health across the globe.

To fight against infectious diseases and cancers, it designs and develops new approaches in the fields of diagnostics, immunotherapy, food safety, and nutrition.

Its three bio-industrial companies, bioMérieux, Transgene and Mérieux NutriSciences, working closely with its entities devoted to innovation, including Mérieux Développement and ABL Inc., have contributed to major advances in medicine and public health.

Institut Mérieux employs over 18,000 people worldwide.

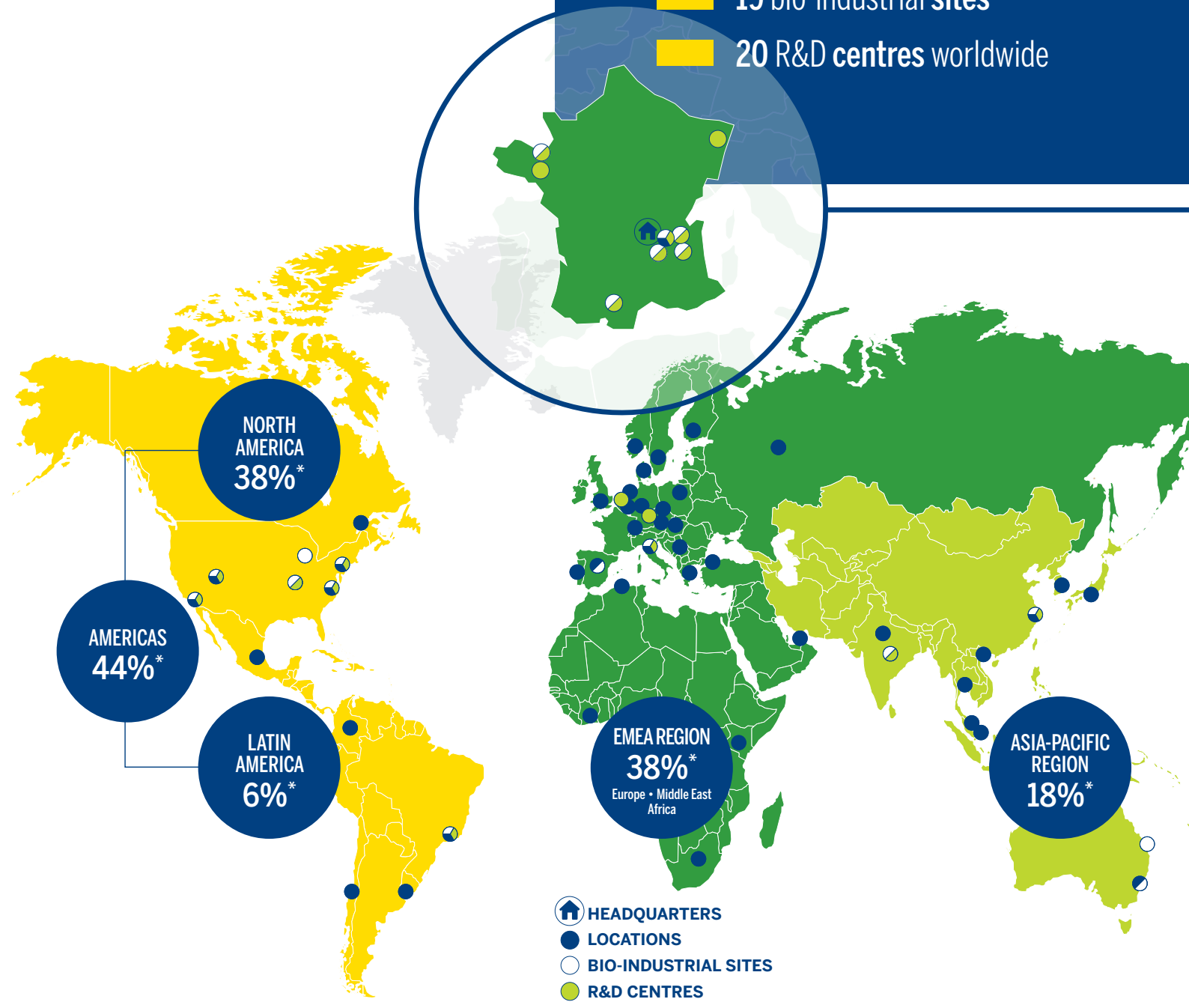
It is present in over 43 countries.

A global player in the field of *in vitro* diagnostics

Over 11,000 employees

bioMérieux

- **Is present in 43 countries** and serving more than **160 countries** *via* a large distributor network
- **19** bio-industrial **sites**
- **20** R&D **centres** worldwide



* Percentage of bioMérieux 2018 total sales.

THE IMPORTANCE OF DIAGNOSTICS

DIAGNOSTICS ARE A FUNDAMENTAL SOURCE OF MEDICAL, ECONOMIC AND SOCIAL VALUE.

They are an essential link in the healthcare chain. Between 60% and 70% of healthcare decisions are based on diagnostic test results*.

bioMérieux, a major player for *in vitro* diagnostics and world leader in clinical microbiology and industrial microbiological control, contributes to the quality of patient care and the protection of consumer health.

bioMérieux develops and produces *in vitro* diagnostic solutions (systems, reagents and software) for private and hospital laboratories, primarily for the diagnosis of infectious diseases. The results obtained with samples taken from the patient (blood, urine, stool, cerebrospinal fluid, saliva, etc.) provide clinicians with information to help in medical decision-making.

For more than 25 years, bioMérieux has also been putting its expertise in clinical applications to the service of industrial microbiological control, helping manage the risks of contamination of food products, pharmaceuticals or cosmetics throughout the production chain.

* The Lewin Group: "The value of diagnostics, innovation, adoption and diffusion into health care", 2005. This figure concerns all diagnostic tools: *in vitro* diagnosis tests and medical imaging examinations.

A history of merger and acquisitions

An original innovation model based on partnerships with international research and joint research units: a multidisciplinary approach to develop the diagnostic solutions of tomorrow.

1986
API Systems, France

1988
VITEK (McDonnel Douglas), United States

2001
Organon Teknika, Netherlands

2004
Initial public offering
Bacterial Barcodes, United States

2007
Biomedics, Spain
BTF, Australia

2010
Meikang Biotech, China
Shanghai Zenka Biotechnology, China

API® | **VITEK®** | **VIDAS®** | **BACT/ALERT®** | **ETEST®**

FOR IMPROVED PATIENT CARE

Diagnostic tests have a major influence on the quality of patient care, as well as on early diagnosis:

- For diagnosis and prognosis, particularly in the case of infectious diseases, in order to identify the causative pathogen and the antimicrobial resistance profile.
- For therapeutic decisions and treatment monitoring.
- For screening in the context of the prevention of certain diseases.
- For early diagnosis, that is, at the early stages of a disease when symptoms are still very mild.

A MAJOR ASSET FOR HEALTHCARE SYSTEMS

Spending on medical biology represents only between 2% and 3% of healthcare expenditure*. This cost is limited when weighed against the medical value of diagnostics and the savings it can generate – both by reducing over-prescription of treatments and by shortening the onset of care and the length of hospital stays.

Diagnostics is also a valuable instrument of healthcare policy, in particular for epidemiological monitoring and control.

MICROBIOLOGY APPLICATIONS IN INDUSTRIAL PRODUCTION

Microbiological control tests make it possible to meet the quality demands of the agri-food, pharmaceutical and cosmetic industries. Performed along the entire production chain and for the environmental control of production zones, such tests ensure product sterility, the absence of disease-causing bacteria and the enumeration of bacterial flora that indicate the quality of food products.

VETERINARY APPLICATIONS: A CONTINUUM FROM ANIMALS TO HUMANS

The "One Health" concept, an integrated approach advocated by international organisations, is based on the principle of the continuum between animals and humans when it comes to the transmission of infectious agents and antimicrobial resistance. Since 2011, bioMérieux has provided its microbiology expertise to professionals of animal health, in particular to make progress in the fight against antimicrobial resistance, animal diseases and emerging zoonoses.

* French Directorate of Research, Studies, Evaluation and Statistics (DREES) and Court of Auditors, 2011.

2011 **AES,** France **ARGENE,** France

2012 **RAS,** India

2014 **BioFire,** United States **Ceeram, Advencis,** France

2016 **Applied Maths,** Belgium **Hyglos,** Germany

2018 **Astute Medical,** United States **Hybiome,** China

2019 **Invisible Sentinel,** United States

CHEMUNEX® **AES BLUE LINE™** **FILMARRAY®** **CEERAM®** **NEPHROCHECK®** **HYBIOME AE-240**

SOLUTIONS FOR HEALTH PROFESSIONALS AND INDUSTRIAL PLAYERS

bioMérieux's research teams are engaged throughout the world in the development of diagnostic applications with high medical value in order to meet challenges to public health and respond to the needs of laboratories.

THREE KEY *IN VITRO* DIAGNOSIS TECHNOLOGIES:

Microbiology

Microbiology is based on culturing biological samples, identifying microorganisms and measuring their resistance to antibiotics.

Immunoassays

Immunoassays use an immunological reaction to identify or quantify the presence of antigens and/or antibodies in a sample.

Molecular biology

Molecular biology is based on the detection of the DNA or RNA genetic sequences that characterise a disease agent in order to detect bacteria, viruses, yeast and parasites.

ANTIMICROBIAL RESISTANCE
A global health emergency

Every 45 seconds, a person dies from an infection caused by bacteria that have become resistant to antibiotics*.
Diagnostic tests contribute to reducing the improper use of antibiotics and help ensure they remain effective for the treatment of bacterial infections in humans and in animals.

Taking a global health approach, the Company develops innovative solutions for clinical diagnostics, industrial microbiological control – particularly in the agri-food sector, environmental monitoring, and veterinary diagnostics.
bioMérieux's offering is the most comprehensive on the market, providing solutions for microbial identification and resistance detection to help clinicians with their therapeutic decisions.

* Based on the 700,000 deaths caused annually by antimicrobial resistance according to "Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations", Jim O'Neill, December 2014.

THE FIGHT AGAINST SEPSIS
Early detection, the first line of defence

Sepsis affects around 27 million people each year. Establishing a diagnosis as quickly as possible is crucial for patients. The rate of survival is 60% when they receive the right treatment two hours after being accepted for treatment. It drops to 30% if it is given four hours later*.

bioMérieux has the most comprehensive offering on the market for the diagnosis of sepsis, based both on the host response and on the detection, identification and characterisation of the pathogen responsible for the infection.

* Kumar *et al.*, Crit Care Med 2006, vol. 34:p. 1589-1596.

MULTIPLE TARGETS WITH A SINGLE TEST
Syndromic panels to combat infectious diseases

For most patients with an infectious disease, the first symptoms are not specific to the cause of infection: fever, diarrhoea, coughing, headache, etc. The syndromic approach, based on using the BIOFIRE® FILMARRAY® multiplex molecular biology system, is especially valuable for this reason.

In about one hour, the BIOFIRE® FILMARRAY® panels allow the simultaneous detection, in a single test and from a single sample, of bacteria, viruses, fungi or parasites that can cause an infectious disease.

PROVIDING CARE IN EMERGENCY SITUATIONS
Improved patient management

In emergency rooms, healthcare professionals need to initiate patient care as quickly and efficiently as possible. Tests with high medical value for the diagnosis of bacterial infections and severe sepsis, myocardial infarction and pulmonary embolism provide rapid results to clinicians and contribute to improving patient care.

THE EFFICIENCY OF MICROBIOLOGY LABS
The most complete offering on the market

Automation is extremely important for microbiology laboratories because it allows them to optimise workflows, standardise analyses, ensure traceability and speed up time to results. Arising from a strategic partnership that brings together Copan's unique expertise in automation and the pre-analytical field, and bioMérieux's leadership in microbiological diagnosis, the "Efficiency Lab" product offering allows all steps of microbiological analysis to be automated and standardised. It complements bioMérieux's range of automated products for blood cultures, bacterial identification and antibiotic susceptibility testing.

PROTECTION OF CONSUMER HEALTH
Microbiological control for industrial customers

Putting its expertise in clinical microbiology at the service of industrial production channels, bioMérieux offers a wide range of solutions for industrial microbiological control, ranging from sample preparation to the identification of disease-causing organisms.

MANAGING THE RISK OF EPIDEMICS DUE TO EMERGING PATHOGENS
Providing an appropriate response in the countries concerned

bioMérieux pays close attention to the emergence of new disease-causing organisms. Thanks to a dedicated international team, the Company is prepared to provide the earliest possible response to these threats to public health.

This is how, for example, bioMérieux developed the first standardised and automated assay for the diagnosis of the Ebola virus.

4 GENERATIONS DEDICATED TO PUBLIC HEALTH

A FAMILY COMPANY WITH A LONG TERM VISION

1897 - Marcel Mérieux
Founder of Institut Mérieux

1894 - Marcel Mérieux
Student of Louis Pasteur

1937 - Dr Charles Mérieux
Take up the reins

1963 - Alain Mérieux
Founder of bioMérieux

OUR RESSOURCES

RESEARCH AND DEVELOPMENT

- Strong expertise in microbiology, molecular biology, immunoassays 3 key technologies for the diagnosis of infectious diseases
- Robust pipeline of innovation
- 1,700 employees in R&D
- Sustained commitment to innovation (13,5% of sales in 2018)
- Strong network of collaborations and partnerships with public, academic and private research to foster open innovation

HUMAN CAPITAL

- More than 11,000 employees
- Diverse workforce located in 43 countries including 48% in EMEA, 42% in Americas and 10% in ASPAC
- Long standing culture of dialogue with the unions

MANUFACTURING AND DISTRIBUTION

- Manufacturing of raw materials mostly at our own sites
- 19 sites in 8 countries
- 4,400 employees in manufacturing
- Continued investment to improve and increase our manufacturing capacity

ECONOMY AND FINANCE

- Stable family shareholder structure
- Solid balance sheet with leverage of 0.5 EBITDA
- Strong cash flow generation

Alexandre Mérieux
Chairman & CEO of bioMérieux

OUR VALUE CREATION

ANSWER TO PUBLIC HEALTH CHALLENGES

- Antibiotic resistance
- Sepsis
- Emerging pathogens
- Protection of consumer' health

ECONOMIC PLAYER

- 2018 sales =€2,421 million, with organic CAGR 2016-2018 =10%
- Net income 2018 =€256 million, with organic CAGR =20% over the 2016-2018 period
- Sharing the value created with our employees and shareholders

COMMITTED EMPLOYER

- Training of our employees (Mérieux Université)
- Participative management
- Several awards given by third parties

PARTNERS OF LOCAL COMMUNITIES

- Preference to local supplies
- Actions to facilitate the integration of young people and people with disabilities
- A sponsorship policy in favor of culture

VERTUOUS ACQUISITION AND DEVELOPMENT STRATEGY

- History of successful acquisitions
- Pragmatic approach adapted to each acquisition
- Respect and learn from people newly joining the Group

A HUMANISTIC CORPORATE OUTLOOK

The commitment to improve global public health by fighting against infectious diseases brings with it a unique responsibility, upheld by all the Institut Mérieux companies. As an extension of its public health mission, bioMérieux has always been mindful of the importance of its social responsibility.

OUR EMPLOYEES: OUR PRIORITY

bioMérieux's employees are the prime architects of the Company's success. bioMérieux places great importance on ensuring that their working environment fosters their career development while respecting the balance between their professional and personal lives. Each employee is also expected to behave ethically and with integrity within the Company and in relations with external partners.

bioMérieux believes in its human capital and promotes internal mobility within the Company. With an eye on the future, the Company is engaged in responding both to the changes in the profession over the short term and to requirements relating to its long-term development.

A POWERFUL TRAINING LEVER

MÉRIEUX UNIVERSITÉ

Mérieux University was created in 2012 to support the professional development of Institut Mérieux company employees, encourage innovation, promote the expression of talent and contribute to employee engagement.

It deploys its training product in France, China, the United States and Brazil, ensures the transmission of a strong, clear entrepreneurial culture and helps build bridges within the Group.

FONDATION MÉRIEUX

FONDATION
CHRISTOPHE & RODOLPHE MÉRIEUX
SOUS L'ÉGIDE DE L'INSTITUT DE FRANCE

FIGHTING INFECTIOUS DISEASES THROUGH FOUNDATIONS

As part of its sponsorship activities, bioMérieux supports the actions of the Fondation Mérieux and the Fondation Christophe and Rodolphe Mérieux.

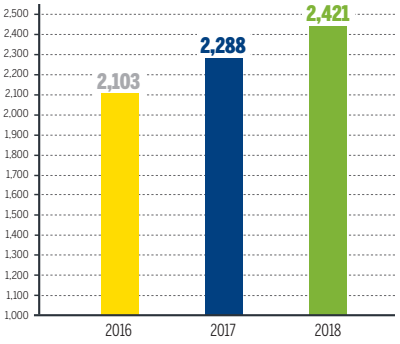
Thanks to the commitment of bioMérieux and other partners, these two independent family foundations fight against infectious diseases that affect developing countries by increasing their diagnostic capacities.

2018 KEY FIGURES

SALES

(in millions of euros)

Sales amounted to €2,421 million in 2018, versus €2,288 million in 2017, an increase of 9.9% at constant exchange rates and scope of consolidation.

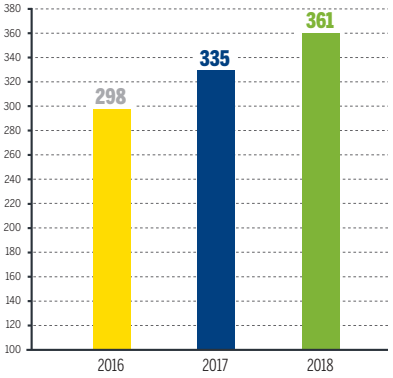


CONTRIBUTIVE OPERATING INCOME BEFORE NON-RECURRING ITEMS*

(in millions of euros)

Lifted by the strong sales organic growth, contributive operating income came slightly above initial target.

It was up by 7.8% compared to 2017, to reach €361 million, or 14.9% of sales.

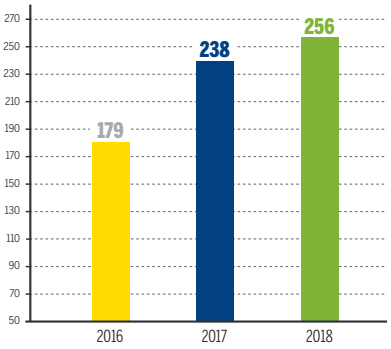


* Contributive operating income before non-recurring items corresponds to operating income before non-recurring BioFire acquisition and integration costs and before accounting entries relating to the company's purchase price allocation.

NET INCOME FOR THE PERIOD

(in millions of euros)

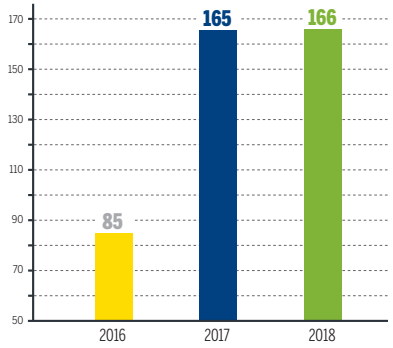
Net income of consolidated companies for the year amounted to €256 million, up by 7.6% compared to 2017. It represented 10.6% of sales.



FREE CASH FLOW*

(in millions of euros)

Excluding the one-off payment to the U.S. pension fund, **free cash flow** amounted to €222 million in 2018, versus €165 million in 2017, representing an increase of more than 30%. Including the one-off payment, reported free cash flow came to €166 million.



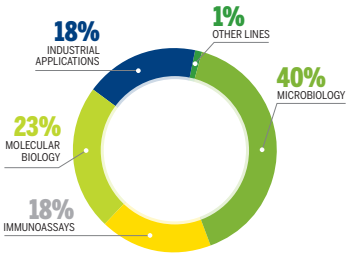
* Cash Flow before acquisitions of companies, divested operations, share buyback programs and dividends.

BREAKDOWN OF SALES

by application

Approximately 60% of sales were generated in clinical and industrial microbiology, two areas where bioMérieux is the world leader. In 2018, sales growth in molecular biology (23% of sales in 2018 compared to 19% in 2017) was driven by the success of the BIOFIRE® FILMARRAY® line.

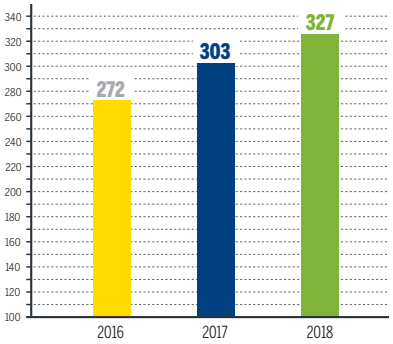
Supported by the commercial strength of the VITEK® and BACT/ALERT® lines, microbiology represented 40% of revenue, up by 6%.



R&D EXPENSES

(in millions of euros)

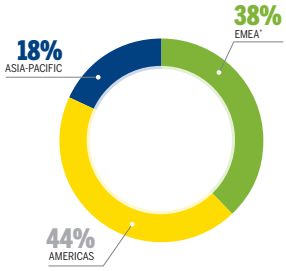
Continuing its innovation efforts, the Group invested €327 million in research and development in 2018, or 13.5% of sales. This increase reflects the intensification of activities associated with the BIOFIRE® FILMARRAY® line.



BREAKDOWN OF SALES

by geographical region

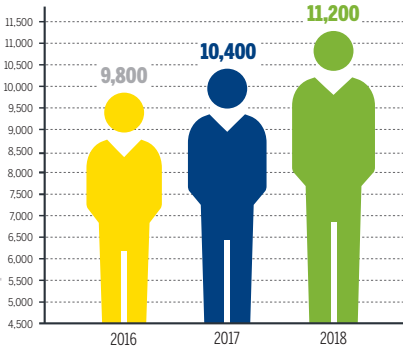
The Group's growth was chiefly driven by strong sales in the Americas region especially in the BIOFIRE® FILMARRAY® line, as well as solid sales dynamics in Asia Pacific.



* Europe, Middle East, Africa.

WORKFORCE AS AT DECEMBER 31*

Changes in the workforce in 2018 mainly relfect the strengthening of BioFire Diagnostics' industrial and commercial teams to support the growth of the BIOFIRE® FILMARRAY® line as well as the strengthening of teams in Asia Pacific.

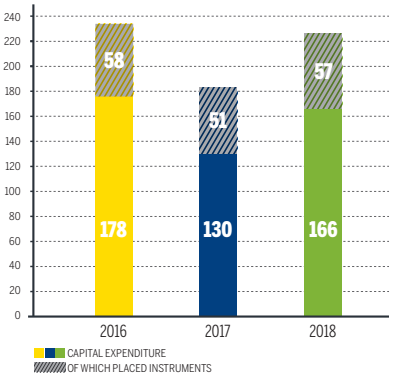


* Full-time equivalent.

CAPEX

(in millions of euros)

The capital expenditures made over the year amounted to €223 million, the results of the industrial investment strategy intended mainly to increase capacity and productivity of production facilities. The total capital expenditures for the year represented 9% of sales.

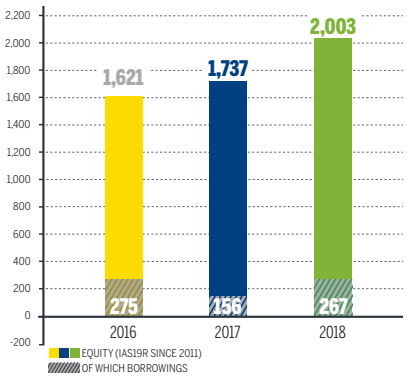


CHANGES IN THE FINANCIAL POSITION

(in millions of euros)

Net debt stood at €267 million at the end of the year, representing only 13% of equity.

This leaves a high degree of flexibility to promote the Group's strategic ambitions.



1

BIOMÉRIEUX, PIONEERING DIAGNOSTICS TO SERVE PUBLIC HEALTH

1.1 History and development of bioMérieux

1.1.1 bioMérieux and the Institut Mérieux

bioMérieux's commitment to public health and its expertise in biology are rooted in its unique history of the Mérieux family. In 1897, Marcel Mérieux, a student of Louis Pasteur, founded a medical analysis laboratory in Lyon, which became the Institut Mérieux. It was the beginning of an extraordinary adventure in the fields of biology and industry.

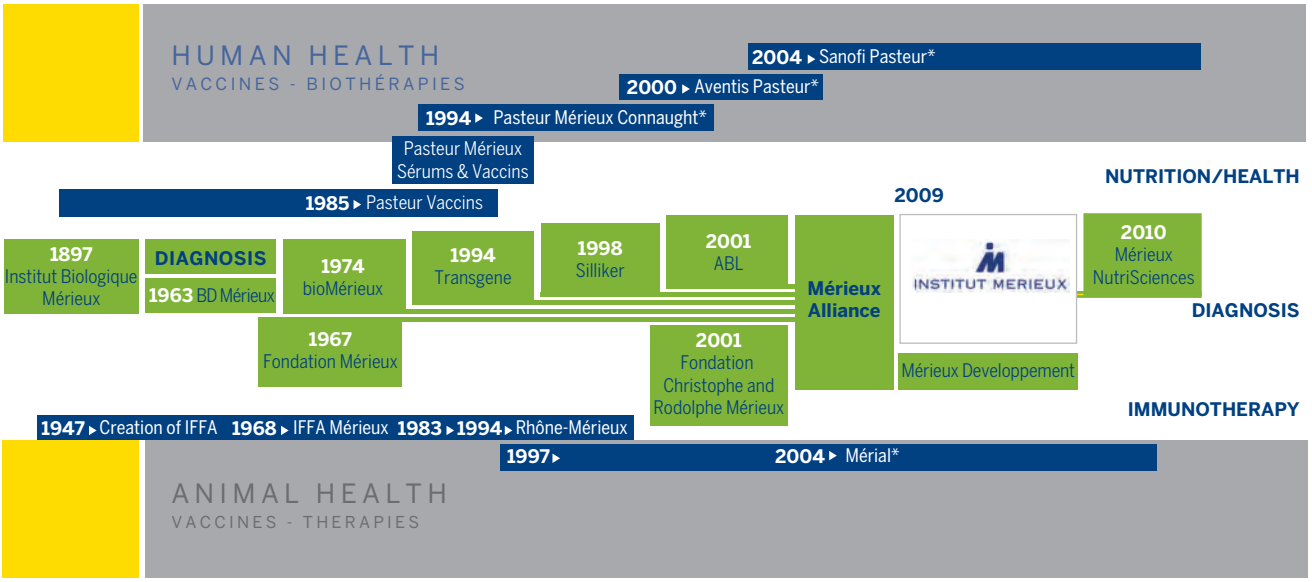
In 1937, Marcel Mérieux's son, Doctor Charles Mérieux, took charge of the laboratory. During the 1940s, he introduced a technique developed by the Dutch professor Frenkel – *in vitro* culture – which revolutionised the manufacture of vaccines and led to the production of reagents for *in vitro* diagnostic tests.

The Institut Mérieux became a worldwide leader in the field of human and veterinary vaccines.

Simultaneously with these activities, Alain Mérieux, the grandson of Marcel Mérieux, in 1963 founded the company B-D Mérieux, which became bioMérieux, dedicated to *in vitro* diagnostics.

The Institut Mérieux gave rise to numerous companies which formed part of the Mérieux family scope until 1994, the date of disengagement of the family from vaccinology activities.

These companies are still major players in the field of public health: in human medicine, Pasteur Mérieux Connaught, which became Aventis Pasteur and then Sanofi Pasteur, in veterinary medicine, IFFA (*Institut Français de Fièvre Aphteuse*), which became Rhône Mérieux, then Mérial.



* Companies exited from the Mérieux family scope in 1994.

1.1.2 Development of bioMérieux

■: expansion géographique | ⊙: acquisitions | ●: accords stratégiques/licences | ▲: évolution du capital

▲	**1963**	**Establishment, at Marcy l'Étoile, near Lyon, of B-D Mérieux** (the former name of the Company), which offers a wide range of products for medical laboratories covering biochemistry, coagulation, virology and microbiology. B-D Mérieux is held at 49.95% by the Institut Mérieux, 49.96% by Becton-Dickinson France and 0.09% by other shareholders.
▲	**1968**	Acquisition by Alain Mérieux of the B-D Mérieux shares held by Institut Mérieux, bringing his ownership interest in B-D Mérieux to 49.96% and making B-D Mérieux independent from Institut Mérieux.
■	**1973**	Establishment in Brazil.
▲	**1974**	Majority of the capital of B-D Mérieux held by Alain Mérieux. **B-D Mérieux becomes BIO MERIEUX SA.**
■	**1975**	Establishment in Belgium.
■	**1976**	Establishment in Germany.
■	**1980**	Establishment in Spain.
■	**1985**	Establishment in Italy.
⊙	**1987**	**Acquisition of the API Group**, a worldwide leader in microbiology for bacterial identification and manual antibiograms(1).
■	**1988**	Establishment in Japan.
⊙		**Acquisition of the US company Vitek Systems** from McDonnell Douglas, specialised in automated microbiology in order to extend its product portfolio, establish itself in the United States and strengthen its worldwide position.
▲		Wendel Investissement (then named CGIP) became associated with the Mérieux family in bio-Participations, an indirect holding company of BIO MERIEUX SA; Wendel Investissement holds nearly 33% of the capital of bio-Participations and Mérieux Alliance (the holding company of the Mérieux family) nearly 67%.
■	**1991**	Establishment in the United Kingdom.
		bioMérieux's range of services extended to industrial applications intended, initially, for the food industries.
■	**1992**	Establishment in China.
▲	**1994**	Becton-Dickinson sells its entire investment in bioMérieux to bio-Participations.
■	**1996**	Establishment in Russia.
■	**1998**	Establishment in India.
■	**1999**	BIO MERIEUX SA becomes bioMérieux SA.
▲	**2000**	Merger between bio-Participations (which became bioMérieux Alliance in 1995) and the Pierre Fabre Group. As the merger of the bioMérieux Group with the Pierre Fabre Group failed to achieve the companies' intended goals, they decided to "demerge" and to cancel the transfers carried out in 2000 and 2001.
⊙	**2001**	Acquisition of Organon Teknika, a subsidiary of Akzo Nobel. This acquisition was a major step in the Group's development, providing it with new products that are highly complimentary with its strategy, notably in microbiology with the blood culture range BACT/ALERT®; new technologies, notably in the field of molecular biology, in particular with the detection technology BOOM® that the Company uses in its system NUCLISENS® EASYMAG® and an establishment in Durham at the heart of the North Carolina Research Triangle where the North American head office of the Group was transferred.
▲	**2003**	Reorganisation of the Nouvelle bioMérieux Alliance (NBMA) Group in order to separate the diagnostic activities, specific to bioMérieux from the immunotherapy activities, specific to Transgene.
▲	**2004**	bioMérieux is mainly held by Nouvelle bioMérieux Alliance (NBMA) at 59.7%, by Wendel Investissement at 34.5% and by Groupe Industriel Marcel Dassault at 5.1%.
▲		**bioMérieux's initial public offering** on the NYSE Euronext Paris market, with the great majority of the investment held by Wendel Investissement in the company being put on the market.
⊙	**2006**	Acquisition of Bacterial Barcodes Inc. (Georgia, United States) which developed the DiversiLab® system used for automated bacterial genotyping.
⊙	**2007**	Acquisition of Biomedics (Spain), specialised in the production of culture media.
⊙		Acquisition of BTF, whose patented calibrated strain technology BIOBALL® is used to check the performance of microbiological analysis methods in the field of industrial applications.
●		Launch of VIDAS® B•R•A•H•M•S PCT™ for diagnosing sepsis, following the grant of a licence by the German company B•R•A•H•M•S (today Thermo Fisher).
●		Launch of VIDAS® NT-proBNP for cardiac pathologies following the grant of a licence by F. Hoffmann-La Roche.

(1) On March 21, 1987, bioMérieux merged with API SA, a company incorporated in 1967. bioMérieux, which had been established in 1963, was absorbed by API SA. Following this transaction, API SA took on the name bioMérieux.

⊙	**2008**	Acquisition of AB BIODISK (Sweden), specialist in microbiology, whose flagship product, ETEST®, can measure the minimum inhibiting concentration of an antibiotic treatment and is a leading technique for clinical microbiology laboratories throughout the whole world.
⊙		Acquisition of AviaraDx (California, United States), molecular diagnostic company specialised in oncology and theranostics, renamed bioTheranostics. In 2016, bioMérieux announced the entry of new investors into the capital of bioTheranostics, leading to the de-consolidation of bioTheranostics.
⊙		Acquisition of PML Microbiologicals (North America), a company acquired for its activity in the field of culture media and microbiological control products intended for industrial applications on the North American market.
⊙	**2010**	Acquisition of Meikang Biotech (China) renamed bioMérieux Shanghai Biotech, for its capacity in production and rapid-tests R&D.
⊙		Acquisition of Shanghai Zenka Biotechnology (China), a company which has the authorisations necessary for marketing the main microbiological culture media.
⊙	**2011**	**Acquisition of the AES Group** (France), a major player in the field of industrial microbiological control in the food industry. The company AES Chemunex has since been absorbed by bioMérieux SA.
⊙		Acquisition of Argène (France), in the field of molecular diagnosis of infectious diseases for immunocompromised patients. Argène has since been merged into bioMérieux SA.
⊙	**2012**	Acquisition of RAS Lifesciences Pyt. Ltd (India). Based in Hyderabad, this private start-up, held at 60%, is specialised in the molecular diagnosis of infectious diseases.
●	**2013**	Agreement with the biopharmaceutical company Gilead Sciences Inc., to co-develop an assay that may be a potential companion diagnostic of a Gilead drug candidate, currently under development.
⊙	**2014**	**Acquisition of BioFire** (Utah, United States), specialised in the molecular and syndromic diagnosis of infectious diseases, which develops, produces and markets the solution FILMARRAY®.
●		Exclusive partnership agreement with Illumina, worldwide leader in sequencing, to market a solution for next-generation sequencing (NGS) dedicated to epidemiological monitoring of bacterial infections.
⊙		Acquisition of CEERAM (France), specialised in molecular virology at the service of food-industry industrialists and the environment. CEERAM has since merged with bioMérieux SA.
●	**2015**	Strategic distribution and R&D project with Copan (Italy) in the field of clinical microbiology laboratory automation.
●		Semi-exclusive worldwide agreement with Astute Medical Inc. (California – United States), for the development of an early evaluation test of the risk of acute kidney injury (AKI).
⊙		Acquisition of Applied Maths (Belgium) a company specialised in the development of advanced software solutions in the field of the management of complex biological data.
⊙	**2016**	Acquisition of Hyglos (Germany), specialised in the detection of endotoxins.
●	**2017**	Worldwide agreement with Banyan Biomarkers (California – United States) for the development and marketing of a test for detecting traumatic brain injury.
⊙		Dissolution of the joint-venture Sysmex bioMérieux Co., Ltd (Japan). Sysmex transferred its entire stake in Sysmex bioMérieux Co., Ltd to bioMérieux.
●		Minority stake in the capital of QVELLA (Canada), specialised in molecular biology.
●	**2018**	Acquisition of Astute Medical Inc. (California – United States). bioMérieux then became owner of the NephroCheck test used for the early evaluation of the risk of acute kidney injuries.
⊙		Majority stake in the capital of Suzhou Hybiome Biomedical Engineering Co. Ltd. (China), a company specialised in automated immunoassay tests.

1.2 Overview of the activities of bioMérieux

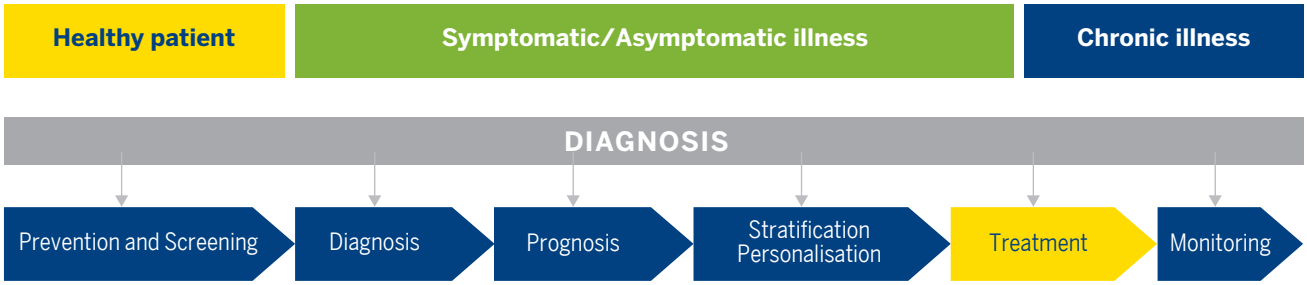
1.2.1 The *in vitro* diagnostic industry

There are currently few official statistics on the *in vitro* diagnostic market. The Company has therefore conducted its own internal analyses on the basis of reports prepared by financial analysts, studies carried out by independent specialist consultants and information published by other companies in the sector, as well as its own knowledge of the market, through its internal experts.

The sources used to estimate the market (size, growth and split), as well as the Company's competitive position relative to its competitors, are mentioned in the corresponding paragraphs.

1.2.1.1 General description

In clinical applications, *in vitro* diagnostics is an essential part of the treatment process, with a role to play at all stages of a disease:



In vitro diagnostic tests are used to determine the origin of an infection, make a correct diagnosis, propose the most appropriate therapy, monitor patient care, avoid costly complications and evaluate a pathology's evolution. Thus, today, between 60% and 70% of medical decisions involve the result of a diagnostic test. In addition, some diseases such as HIV and early-stage cancers can only be detected through analysis of samples taken from the patient: for these diseases, medical decisions are 100% reliant on *in vitro* diagnostic tests (source: French *in vitro* diagnostics industry representative body – Sidiv).

The analyses are performed on samples taken from patients, rather than on the patients themselves. They are generally carried out at the request of a physician, in private-sector or public medical biology laboratories belonging to hospitals or commercial entities, blood banks and physicians' offices. The results are then sent to the physician who can use them to confirm or establish a diagnosis (often in combination with other examinations such as a medical examination or imaging). In some countries, the physician or patients themselves perform certain analyses.

In the industrial market, *in vitro* diagnostic technologies are used to monitor the microbiological quality of food and veterinary products, pharmaceuticals and cosmetics. These microbiological tests (sterility of products, absence of pathogenic bacteria, etc.) are conducted throughout the production line, from raw materials to the finished product, as well as in the manufacturing environment (air, water and surfaces).

***In vitro* diagnostics** is part of the healthcare sector. It is distinct from the pharmaceutical market. It benefits from a more flexible regulatory environment than that applicable to pharmaceutical products, although this is becoming more and more stringent, as well as from a more stable customer base, principally due to the significant costs (investments and training costs and the costs of connecting platforms to laboratories' information systems) incurred by diagnostics customers. The *in vitro* diagnostic market also has more stable sales growth mainly due to:

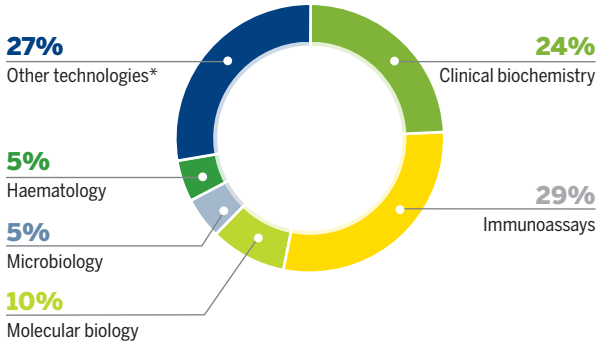
- the significant proportion of *in vitro* diagnostics sales accounted for by reagent sales, because of the "closed" nature of most systems, which function only with reagents developed and marketed by the manufacturers of these systems (captive market);
- the obligation to offer customers a wide selection of reagents per instrument, which leads to a distribution of the *in vitro* diagnostics companies' activities across a large number of products, in contrast to pharmaceutical groups that are often dependent on blockbusters;
- relatively steady changes in demand in the diagnostics market, in contrast with sales of drugs, which can vary widely, due, in particular, to changes in the regulatory environment and competition from generic drugs.

1.2.1.2 A market determined by technologies

In vitro diagnostics covers all techniques, systems and products used on samples of biological liquids or human tissue within clinical laboratories. It therefore covers all analytic techniques used after sampling which guide the decisions of the doctor in the light of the results obtained. The market for *in vitro* diagnostics is based on several types of technologies:

- clinical chemistry, which can measure the basic components of the body and is a very important technology, particularly concerning tests for monitoring diabetes;
- immunoassays: detection and measurement of infectious agents (such as bacteria, viruses and parasites) and of pathological markers through an antigen-antibody reaction;
- microbiology: culture of biological samples in a medium allowing any bacteria present to grow. Bacteria detected are then identified and tested for susceptibility to antibiotics;
- molecular biology: technology based on the detection of genetic sequences of DNA or RNA that are characteristic of a bacterium, virus, protein or cell. In the field of infectious diseases, the process consists of extracting nucleic acids (extraction), multiplying (amplifying) them, marking the resulting copies of this amplification and detecting a signal, in order to determine the presence and quantity of infectious agents in the original sample;
- haematology, which covers the techniques for studying components of the blood (platelets, red and white cells, etc.).

The image below shows an estimated breakdown by technology of the world market for clinical *in vitro* diagnostics in 2018:



** This section includes flow cytometry, histology and cytology, hemostasis, the analysis of blood electrolytes and gases, capillary electrophoresis...*

Source: EAC estimates on behalf of bioMérieux based on data from the 3rd quarter of 2018.

In vitro diagnostic techniques were traditionally performed manually but have progressively been automated, incorporating scientific and biological advances and innovations in technology and IT. They have made it possible for laboratories to standardise the processes, obtain more reliable and pertinent results in a shorter time period, ensure the traceability of analyses and increase the number of examinations that can be carried out simultaneously. The degree of automation is not consistent from one laboratory to another, however. The Company believes that microbiology laboratories are currently less automated than other laboratories. The need for automation expressed by these laboratories represents a source of growth in this market.

Molecular biology has added a new dimension to *in vitro* diagnostic techniques. Most often, it does not substitute for traditional techniques, but supplements the diagnostic offer by providing performance that is better than traditional techniques (sensitivity and/or speed). Molecular biology has cleared the way for a new approach to infectious diseases: the syndromic approach. Numerous infectious diseases have a similar clinical profile but may be caused by different organisms, including viruses, bacteria, fungi or parasites. The syndromic approach is based on the simultaneous analysis of multiple pathogens which may cause this illness. The syndromic approach improves patient care.

At the same time, new techniques are emerging. Technological progress has enabled the development of next-generation sequencing (NGS), which enables high-flow analyses on a much greater scale than traditional sequencing techniques and at lower cost. The use of NGS solutions is becoming more common in clinical laboratories, particularly for cancer and neonatal screening. This technology is also creating new possibilities for the epidemiological monitoring of infectious bacterial diseases, and ultimately, their diagnosis.

Point-of-care analyses have also developed as instruments are miniaturised. Diagnostic orientation tests are, for example, now available to doctors or nurses, in pharmacies or in certain emergency services.

Also, *in vitro* diagnostic tests have evolved. In addition to traditional tests, high medical value tests are now having a significant impact on therapy choices, improvements in patient health and healthcare system cost savings. These tests can be integrated at every level of care for patients, to improve or confirm a diagnosis, enhance treatment strategy, monitor the effects of prescribed treatments and, often, avoid costly complications.

Over the medium to long-term, the "theranostics" or companion diagnostics market, combining a diagnostic test and treatment, is likely to grow. This approach enables the analysis of one or more biomarkers to stratify the patients or pathologies and develop more effective and targeted medicines.

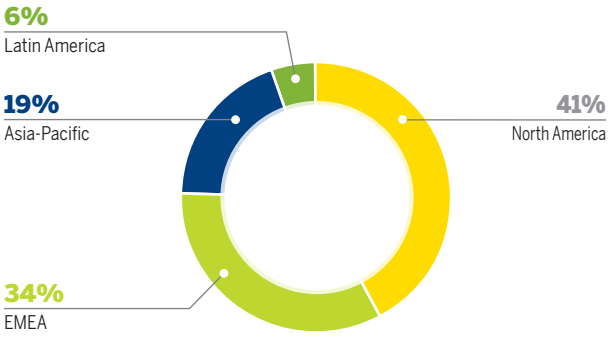
Driven by new technologies and scientific advances, the medical value of *in vitro* diagnostics is increasingly recognised, and *in vitro* diagnostic tests play an increasingly decisive role in the treatment process. By providing earlier, more reliable, and more precise diagnoses and better monitoring of therapeutic response, these tests help to improve the quality of care, while optimising and reducing healthcare spending.

1.2.1.3 A worldwide market

The global market for *in vitro* diagnostics was estimated in 2018 at €54 billion (US$63 billion) for clinical applications and approximately €2.5 billion (US$2.9 billion) for industrial applications. The worldwide market for *in vitro* diagnostics for clinical applications is concentrated at approximately 80% in the mature countries (mainly North America, Europe and Japan). The breakdown of the Company's sales by geographical area and by application is presented in section 5.2.1.

Since the end of the 1990s, the clinical *in vitro* diagnostic market has experienced a period of growth due to the increased recognition of the role of diagnosis in the definition and monitoring of treatments and in the reduction of healthcare expenditure, the emergence of new disease-causing organisms, major technological advances opening the way to new applications, and the geographical expansion of the market.

A 2018 estimate of the geographical breakdown of the clinical *in vitro* diagnostic market:



Source: EAC estimates on behalf of bioMérieux based on data from the 3rd quarter of 2018.

1.2.1.4 Market trends and growth prospects

The trends presented below are for illustrative purposes and may vary significantly for the reasons indicated in section 2 (Risk factors).

Several structural factors explain growth in the *in vitro* diagnostic market:

- in developed countries, **demographic and lifestyle** changes favour a rapid, but also preventative and predictive, diagnosis:
  - the ageing of the population, particularly in developed countries, is becoming a reality, and life expectancy is continuing to increase. For example, it is estimated that one-third of the population in Western Europe will be over 60 in 2050 (source: European Diagnosis Manufacturers Association – EDMA). This will lead to an increase in chronic diseases and age related disorders, such as cardiovascular diseases, neurodegenerative diseases, respiratory infections and certain cancers,
  - lifestyles (inactivity, stress, etc.) and new eating habits contribute to the development of diseases such as diabetes and food allergies;
- in emerging countries, there is vigorous demand for **improved healthcare** and public health systems due to:
  - rapid population growth and urbanisation, recent pollution problems, and changing lifestyle and eating habits, which foster the development of infectious and chronic diseases,
  - rising living standards, the introduction of ambitious health reforms and new or renovated infrastructure, which are also stimulating an increase in demand, particularly for widely accessible medicines. Furthermore, medical expenses still represent only 5% to 9% of GDP (compared to approximately 17% in the United States and about 9% in Western Europe, according to statistics from the OECD – OECDStat), thus giving these countries some degree of margin for manoeuvre to invest in health systems;
- **the emergence or reemergence of disease-causing** organisms imposes the need to develop new diagnostic tests:
  - microorganisms that are resistant to antibiotics and antivirals are emerging and impose better management of the therapeutic arsenal. In 2014, the WHO published its first report on global antimicrobial resistance, including resistance to antibiotics, noting that this serious threat was no longer a prediction, but a reality in every region in the world and that everyone, irrespective of age or country, was at risk. Since 2015, several national or international initiatives were put in place (United States, China, France, United Nations), notably to highlight the importance of increased monitoring of the emergence of resistant bacteria, or the necessity of rapid diagnostics in order to better control the prescription of antibiotics,
  - disease-causing organisms are appearing, emerging, reemerging and spreading worldwide. As an example, the World Health Organisation (WHO) has qualified as a "worldwide threat to public health" two recent epidemics: in 2014, the Ebola virus epidemic, the most deadly since the discovery of the virus in 1976 and, in February 2016, the Zika virus epidemic, associated with increasing cases of microcephaly in babies whose mothers were infected during pregnancy,
  - the proliferation of healthcare-associated infections, has led to the need to detect carriers of multi-resistant bacteria before they become self-contaminating or infect other patients. Furthermore, the high cost of treatment of these infections (estimated in Europe at €7 billion per year, according to MedTech Europe) argues in favour of screening tests for the carriers of these bacteria, to put in place appropriate hygiene measures. Furthermore, an actual or suspected hospital contamination requires conducting epidemiological studies to understand how the disease-causing organism was transmitted and to implement appropriate hygiene measures to contain and stop its dissemination;

- reducing **health expenditure** is an economic necessity:
  - the continuing economic difficulties experienced by developed countries are leading governments to optimise and even reduce their health spending. Diagnosis only accounts for approximately 2 to 3% of healthcare spending, but is used in most treatment decisions, and provides better care for patients: because of its effectiveness at every stage of an illness, it can make a significant contribution to healthcare spending optimisation,
  - reimbursement for medical care is increasingly organised by pathology and not by examination. In this context, hospitals bear the cost of patient treatment and monitoring, which gives them an incentive to conduct diagnostic tests to select the most appropriate treatment and avoid hospitalisation wherever possible;
- *in vitro* diagnostic is medically important to the healthcare process through its incorporation into **4P** (preventative, predictive, personalised and participative) medicine:
  - progress in medical know-how leading to the discovery of innovative new biomarkers that can result in the development of *in vitro* diagnostic tests improving patient care,
  - technological developments, especially those relating to analysis techniques for proteins and genetic sequences, extend the scope of *in vitro* diagnostics to cardiac diseases, cancers, and autoimmune and neurodegenerative diseases,
  - the development of "theranostics", which combines diagnostic tests with treatment decisions, helps the physician to choose the most appropriate treatment and avoid those that are ineffective,
  - bio-informatics and Big Data could change *in vitro* diagnostics by gradually eliminating the border between the services offered by medical laboratories and the solutions marketed by *in vitro* diagnostics companies, as well as by giving laboratories access to more precise data so that patients can benefit from better informed clinical decisions;
- **the structure of laboratories** is evolving:
  - new technologies are contributing to the development of new diagnostic systems, improving the medical value of each diagnosis along with laboratory workflows and efficiency,
  - a growing shortage of qualified personnel, greater consolidation among laboratories and the need to standardise analyses and improve operational efficiency, particularly in clinical microbiology, have led to the automation of laboratories and increased needs for services such as training, maintenance, accreditation assistance, laboratory productivity optimisation,
  - the development of molecular biology is leading to faster and more accurate new diagnoses (see section 1.2.1.2). Expertise in this area has resulted in the development of easier to use integrated platforms,
  - demand is increasing in hospitals, particularly in the emergency and intensive care departments, for diagnostic solutions leading to the faster selection of treatment for patients and resulting in Point of Care (POC) tests and decentralised analyses. Also, the Company estimates that only just over 50% of American hospitals are equipped to carry out molecular biology tests in their internal laboratories,
  - developments to the technology are also opening up new fields to *in vitro* diagnostic instruments outside the laboratory. Thus, certain tests can be decentralised and carried out in consulting rooms or pharmacies,
  - advances in communication technologies are impacting *in vitro* diagnostics, as devices must now increasingly be connected to laboratory information systems. In addition, with new generation connected tools, results can be communicated quickly *via* smartphone to medical professionals and, in certain cases and for certain applications, to patients themselves. More and more, patients want to play an active role in their own healthcare and health decisions, creating a need for better access to medical information and to faster, more precise and easier to understand analysis results,
  - the Obama administration's health care reform in the United States is extending medical insurance to people who did not have adequate health care coverage. The number of doctors' visits and the prescription of diagnostic tests have increased. Faced with this increased activity, laboratories had to become more automated in order to optimise their workflow and productivity;
- demand in **industrial applications** is boosted by structural factors:
  - there are more and more quality control obligations in food, pharmaceutical and cosmetics applications,
  - food, pharmaceutical and cosmetics companies are looking to protect their trademarks and reputations, while also being able to improve test automation, enabling the faster release of production batches and thereby encouraging the development of technologies such as cytometry,
  - changing eating habits (such as increasing meat consumption in emerging countries) are stimulating demand in the food industry,
  - the development of new "on demand" personalised medicine or short series treatments is stimulating demand in the biopharmaceutical industry due to the need for more regular and quicker checks,
  - veterinary laboratories are increasingly having to deal with microbial resistance in animals and diagnose infertility and emerging animal diseases in livestock, at a time when new regulations are restricting the use of antibiotics on farms,
  - emerging markets want to protect their consumers and export their own food production. As a result, they are strengthening their food safety testing requirements,
  - end consumers are demanding increasingly higher standards when it comes to the quality of the food, pharmaceuticals and cosmetics that they buy.

Conversely, **some economic factors may impact growth in the market:**

- the economic situation in Western Europe could remain structurally difficult, with mixed dynamics specific to each country;
- chronic deficits, excessive debt levels of healthcare systems, and economic and monetary crises are leading to austerity measures (lower reimbursements, reduced investments, streamlining of the management of reagent inventories, etc.) and limiting users' ability to increase consumption;
- increased demand for diagnostic tests could put downward pressure on the prices paid by medical laboratories for their reagents. In 2015, certain (Lab Developed Tests) also known as "homebrew" tests were not reimbursed in the United States. In 2017, the US administration implemented a health reform known as PAMA (Protect Access to Medicare Act of 2014) which aims to reduce reimbursements for *in vitro* tests for outpatients. Although these developments do not directly affect producers of *in vitro* diagnostics systems, they could weigh on the *in vitro* diagnostic market over the longer term;
- the introduction of new tests and their reimbursement requires an evaluation of their cost/benefit ratio. These evaluation processes are still complex and rather informal, and represent an opportunity to better demonstrate the value of *in vitro* diagnostic tests;
- the emerging countries are traditionally markets for equipment, for which development is more irregular and are characterised by a growing consumption of reagents; furthermore, these countries are becoming more price sensitive. These countries can experience significant currency fluctuations;
- for several years, the consolidation of medical laboratories, both in hospitals and commercially, has been becoming a reality. This movement has been developing at different rates depending on the country. It is already very advanced in North America and Japan and, to a lesser extent, in Europe.

  This consolidation strengthens the negotiating power of customers and brings new interlocutors into the process of purchasing an *in vitro* diagnostic system, such as hospital managers and specialised buyers, which could negatively impact the level of prices charged by market players;
- the regulatory requirements are increasingly important (see section 2.5.1).

Estimated growth in the *in vitro* diagnosis market, excluding blood sugar tests, was approximately 5% in 2018, at constant exchange rates. The Company remains confident that this market will continue to grow in the medium term.

1.2.1.5 The main players

Increasing R&D costs related to innovation, the consolidation of the customer base, the need for broader product lines, as well as critical mass considerations are encouraging continued consolidation in the *in vitro* diagnostic market. In addition, this market has attracted several new players.

The *in vitro* diagnostic market remains highly concentrated. The Company estimates that the 10 largest players in the market for *in vitro* diagnostics currently constitute 75% of the worldwide market, including diabetes tests. These are the large pharmaceutical groups (Roche, Abbott) or diversified conglomerates (Becton Dickinson, Thermo Fisher, Danaher and Siemens Healthineers), or specialised companies (bioMérieux, Bio-Rad and Sysmex).

Based on its 2018 sales, the Company ranks itself in 6th place in the *in vitro* diagnostic market. This ranking reflects its specialised positioning: it is not present in diabetes testing and has little activity in clinical chemistry testing.

1.2.2 bioMérieux, specialist player in *in vitro* diagnostics

1.2.2.1 General presentation and areas of competence

bioMérieux designs, develops, produces and markets systems that are used in two fields:

- **in clinical applications**, these systems can, from a biological sample (blood, saliva, urine, etc.), be used to diagnose infectious diseases, cardiovascular pathologies and certain cancers. Clinical applications represent 82% of the Company's revenue. As a specialised player, bioMérieux ranks 6th worldwide in *in vitro* diagnostics, but is the world leader in clinical microbiology and molecular syndromic diagnosis of infectious diseases. The Group's historic and priority activity focuses on diagnosis of infectious diseases: bacterial (such as staphylococcus), parasitic (such as toxoplasmosis) and viral infections (such as HIV). Diagnosis of infectious diseases represented nearly 90% of its revenue in 2018;
- **in the industrial field**, these systems enable microbiological analyses of manufacturing and of its environment, chiefly in the food, pharmaceutical, cosmetics and veterinary sectors. Industrial applications represent 18% of the Company's revenue. bioMérieux is the worldwide leader in this sector. Since 2011, bioMérieux has been making its expertise in microbiology available to professionals in animal health, notably with the aim of contributing to the fight against microbial resistance, epizootics and emerging zoonoses. This forms part of the "One Health" approach promoted by international organisations (see section 3.2.1) and based on the principle of a continuum from animal to man in the transmission of infectious agents and resistance to antibiotics.

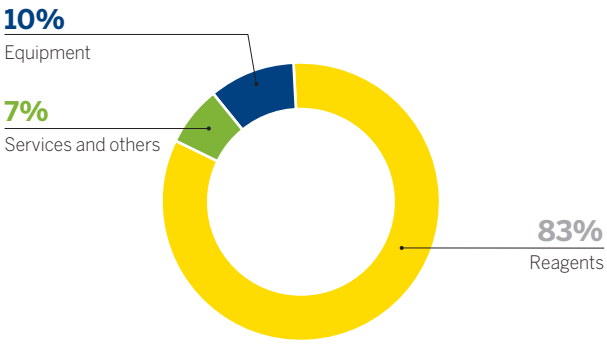
bioMérieux differentiates these fields within two different departments: a Clinical unit and an Industrial unit, the managers of which sit on the Executive Committee.

The Group's diagnostic systems consist of several elements:

- reagents and disposables used to carry out biological tests, in order to perform screening, diagnostic assistance, prognosis and treatment monitoring;
- instruments (or platforms or autoanalysers) used for automated testing at high or low throughputs;
- software to process analyses and expert systems to interpret test results;

- related services such as the installation and maintenance of instruments, user training or the audit of laboratory workflows.

bioMérieux's business therefore involves integrating highly diversified technologies covering biology, instrumentation and engineering, as well as IT and data processing. This can often be complex, as it entails verifying the essential compatibility of the various components, monitoring overall coherence, adhering to the different standards applicable in each field and respecting quality and cost objectives and deadlines.



The largest part of the Company's revenue comes from the sale of reagents, which represented 83% of revenue in 2018. The Group mainly markets closed systems, which enable only the use of reagents developed specifically for these instruments.

Thus, 85% of the sales of reagents in 2018 were related to closed instruments, the balance coming from manual products and open systems.

Instruments are either sold (10% of consolidated sales in 2018), or provided to customers for use on their premises under an agreement to purchase a minimum volume of reagents and disposables, on terms designed to cover the depreciation and the financing of the instrument. If the customer fails to fulfil its obligations, the Company is contractually entitled to repossess the instrument. In certain markets, instruments may also be leased to customers.

Any required systems management **software** is provided with the instruments and updated regularly.

Instruments that are sold or provided to customers are accompanied by services which include the installation and servicing of the instrument, as well as user training. The Company will continue to grow this business. The invoicing of services, including R&D collaborations, represented 7% of the Company's revenue in 2018.

Given the current market, the Company believes that it is important to master three complementary techniques in order to successfully compete in the targeted areas:

- microbiology, which is based on culturing biological samples, identifying microorganisms and measuring their antimicrobial resistance;
- immunoassays, based on the principle of immunological reaction, to identify or quantify the presence of antigens and/or antibodies in a sample;
- molecular biology, which is based on the detection of genetic sequences of DNA or RNA characteristic of a pathogen to identify bacteria, viruses, fungi and parasites.

Lastly, bioMérieux is a company that is geographically diversified: the Group operates in over 160 countries, through 43 subsidiaries and a wide network of distributors (see section 1.2.2.4).

1.2.2.2 Competition

Clinical market

In the infectious diseases segment, which accounts for more than 20% of the market for *in vitro* diagnostics (according to the estimates of the Company and its knowledge of the market), and which represents 90% of the Group's clinical sales, the Company is one of the rare players to have all of the technologies used (microbiology, immunoassay and molecular biology). As a result, it faces different competitors depending on the technology used. The Company believes that its expertise in all complementary technologies gives it a significant competitive advantage.

- In clinical microbiology, as estimated internally and by an independent consultant specialised in *in vitro* diagnostics, the Company's market share is around 40%, putting it in the leading position worldwide. This market is estimated at about €2.8 billion, growing by 3 to 5% a year at constant exchange rates. Other significant players in this market include Becton Dickinson, Danaher and Thermo Fisher. In automated microbiology, new technologies are emerging, such as mass spectrometry, which is also marketed by Bruker, and competition has heightened since Becton Dickinson's takeover of Kiestra. In addition, the line between technologies is becoming increasingly porous: start-ups offering identification technologies and/or rapid antibiotic susceptibility tests at the molecular biology level are emerging, and players in the field of molecular biology are increasingly offering tests for rapid bacterial identification.
- In immunoassay, large and diversified pharmaceutical groups (Roche, Abbott, Siemens Healthineers and Danaher) are dominant. Among specialised players, the main competitors include Bio-Rad and DiaSorin. According to its internal estimates, the Company has a market share of about 3%. It is strengthening its position as a specialised player thanks to VIDAS® 3, the most recent generation of its VIDAS® automated system, to its range of high medical value tests and its establishment in emerging countries.
- In molecular biology, the market leader is Roche. The other significant players are Hologic, Qiagen, Becton Dickinson, Danaher (Cepheid), Abbott and Siemens. In this market, in 2014 bioMérieux made a major strategic move with the acquisition of the American company BioFire, whose BIOFIRE® FILMARRAY® system provides a new standard in the diagnosis of infectious diseases. This innovative diagnostic approach is tending to develop, driven by bioMérieux, while competitors are starting to emerge, such as Genmark Diagnostic and Luminex which acquired Nanosphere in 2016, or Qiagen which acquired StatDx in 2018. Furthermore, it is present in the extraction field with EMAG®, the new generation of its automated system NUCLISENS® EASYMAG®. Now, bioMérieux holds about 14% of this market.

Industrial market

In the industrial market, which remains relatively fragmented, the Company considers itself the world leader, Based on its internal studies, it evaluates its market share at about 20% in 2018. The other significant players are Merck Millipore, 3M, Thermo Fisher, Becton Dickinson and a number of smaller companies in niche segments.

1.2.2.3 Customers of the Group

In clinical applications, the organisation of the *in vitro* diagnostics sector varies considerably from country to country, depending on the structure of the healthcare system itself. Essentially, it may be part of the public or the private sector, or combine them both. The Company mainly sells its products to hospital and commercial laboratories. It estimates that these two types of customers represent approximately two-thirds of the *in vitro* diagnostic market, with hospital laboratories alone accounting for approximately half the market. To a lesser extent, the Group's customers include distributors, blood banks, the Point of Care market (including hospital emergency rooms) and physicians (physician office laboratories or POLs). The Group does not sell products to patients themselves.

France, where the Group made 8% of its sales in 2018, has a mixed health organisation, associating private and public laboratories. As an approximation, private laboratories represented 31% of sales in 2018, while hospitals totalled 34% of the Company's sales. Industrial customers represented 34% of sales in 2018.

In the United States, the largest market for the Group, public or private hospitals represented 76% of sales in 2018 and commercial laboratories represented 10%. Also, less than 1% of sales were made with other customers in clinical applications, including POL and University hospitals. Industrial customers represented 14% of sales.

The Company's clinical microbiology offer includes all capacity systems and is based on the concept of microbiology laboratory automation. It is therefore perfectly in line with this shift toward the previously described consolidation. By integrating services, in particular, the solution's commercial offering is also expanding with a focus on introducing comprehensive solutions with high added value (medical or cost). However, in immunoassay, VIDAS®, a low-throughput platform, is not adapted to routine tests in large laboratories.

In industrial applications, Group customers are the quality control laboratories of large industrial food, pharmaceutical and cosmetics groups, independent laboratories to which such industrial quality control is outsourced, or veterinary laboratories. In addition, with the development of the fight against healthcare associated diseases, the Company is beginning to target hospitals as industrial customers for the installation of disinfection and monitoring systems. Similarly, blood banks have, in some cases, become industrial customers with the development of bacteriological sterility monitoring of platelets.

In spite of the global movement towards the concentration of its customers, bioMérieux does not consider that it has a concentrated customer base; as an illustration of this, the largest customer represents about 1% of the total revenue of the Group.

1.2.2.4 Commercial network

The Company markets its products in over 160 countries through a network of international subsidiaries and distributors. One of the Company's priorities is to further enhance its customer focus.

Product distribution is based mainly on a network of 43 subsidiaries which devote their efforts to selling, promoting and/or maintaining the Group's products.

Group subsidiaries have specialised sales and marketing forces for clinical and industrial microbiological control customers. In the most developed and mature markets, such as the United States, most European markets and Japan, sales forces in clinical applications are specialised by product line. In the most developed and mature markets, such as the United States, most of the European markets and Japan, sales forces in clinical applications are specialised by product line. Likewise, the industrial applications sales forces are becoming increasingly specialised in the pharmaceuticals and food sectors. Conversely, in smaller countries, sales forces are not specialised.

In addition to its subsidiaries, the Company possesses a strong presence on all continents through independent distributors. The Company's determination to achieve strong product recognition, along with legal requirements regarding traceability and customer support services (technical personnel, training, availability of spare parts) direct the choice of local partners. They are generally major players in the health field in their countries and are often exclusive in the diagnostic field. They are also selected by the Company on the basis of their knowledge of local healthcare market players, and their material and human resources. The Company ensures that its distributors have adequate financial resources to fund the instruments provided to end-customers.

Furthermore, in particularly large emerging countries such as China, Russia and India, the Company's subsidiaries can be the driving force behind a network of local distributors. This organisational structure is consistent with local distribution practices and allows the Company to market its product lines across large parts of these countries, with a limited number of distributors. On the other hand, using intermediaries can, in certain cases, make it harder to understand how the market is evolving.

1.2.2.5 Suppliers and purchasing policy

In order to adapt the purchasing policy for raw materials and various components to the specific requirements of each line of instruments and reagents, the Group has set up an overall system that encourages:

- early involvement of purchasing in new projects;
- globalisation of initiatives and volumes;
- increased responsiveness.

bioMérieux also looks to diversify its supplier base in order to foster both security and competitiveness. Producing certain raw materials in house and entering into partnerships with various suppliers have resulted in both technical and economic benefits.

Faced with product specificity which is not always consistent with procurement flexibility, the Company endeavours to secure its critical supplies. Such security can take the form of supply agreements, diversified sourcing, buffer stocks and the development of in house production, or the assumption by the Company of liability for the regulatory compliance of certain specific components manufactured by a supplier.

Since a large part of bioMérieux's activity is devoted to manufacturing, purchasing plays a key role for the Company. The associated risks are described in chapter 2 "Risk Factors" (see section 2.4.1).

bioMérieux seeks to involve its suppliers in a sustainable growth and ethical strategy (see section 3.5.3.2).

1.2.3 The Group's products

The Company has implemented a global marketing strategy. Its various systems are marketed under identical trademarks worldwide and the product offering is adapted to regional and local requirements.

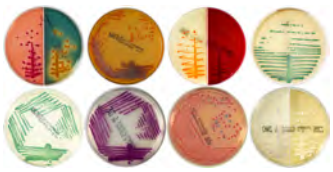
The Company's ten leading products accounted for 35% of sales in 2018.

The main products marketed by the Group and their applications are described below by technology.

1.2.3.1 Microbiology

This technology involves culturing biological samples in a medium allowing any bacteria present to grow, in order to identify the disease causing bacteria and test their susceptibility to antibiotics. The main challenge faced by laboratories is technical and economic efficiency during upstream stages, particularly the culture of microorganisms, due to the significant percentage of negative samples. Negative samples must be quickly and reliably identified, using greater automation, in order to focus laboratory technicians' time and attention on positive samples requiring further analysis. These steps taken to identify and characterise antibiotic susceptibility are crucial for clinicians responsible for patient care. Thus, they are the primary focus of the medical value expected from diagnostic tests.

Culture media



The Group offers an extensive range of culture media, with more than 100 references available in various forms such as Petri dishes, tubes and bottles. With over 50 years' experience in the industrial manufacture of culture media, the Company is the European leader in the production of conventional and chromogenic Pre-Poured Media (PPM).

Within the field of clinical applications, the Company is concentrating its development efforts on products that require specific expertise, the range of chromogenic media CHROMID®. By introducing chromogenic substrates, these media allow simultaneous isolation and identification of the target microorganisms, which reduces the time required to obtain results.

Over the last few years, bioMérieux has launched more than 10 new chromogenic media related to its strategy of fighting antibiotic resistance:

- CHROMID® C. difficile, the first chromogenic medium for isolating and identifying *Clostridium difficile* in only 24 hours. *C. difficile* is a bacteria responsible for healthcare associated epidemics, some of which are extremely serious and associated with high mortality. CHROMID® C. difficile forms part of the overall diagnostic solution for infections by *C. difficile* also including VIDAS® C. difficile GDH and VIDAS® C. difficile Toxin A & B;
- with the media CHROMID® Elite, numerous improvements have been made, including better differentiation of disease-causing organisms, quicker and more comfortable reading of results and improved sensitivity and specificity parameters for specific germs:
  - CHROMID® CPS® Elite for the isolation, counting and direct or presumed identification of organisms responsible for urinary infections,
  - CHROMID® Salmonella Elite for quicker detection of strains of *Salmonella* in clinical samples of faeces,
  - CHROMID® S. aureus Elite particularly adapted to the search for "variant small-colony" staphylococcus in patients suffering from cystic fibrosis;
- combining its expertise in bacterial identification and its expertise in resistance to antibiotics, the Company has developed tools for screening for resistant bacteria responsible for healthcare associated infections and hospital epidemics. CHROMID® CARBA, CHROMID® CARBA SMART, CHROMID® OXA-48 have become standards for detecting "super bugs" resistant to carbapenems;
- CHROMID® MRSA, dedicated to the detection of MRSA, has been joined by CHROMID® MRSA SMART which can save one day in returning the result. At the same time, this medium obtained FDA authorisation for use of the medium with samples of skin, sores, soft tissue and with blood culture bottles;
- finally, CHROMID® Colistin R, launched in November 2017, is a ready-to-use chromogenic media approved to screen for colistin resistant Gram-negative bacteria, available for the first time for human and veterinary samples. This medium will strengthen bioMérieux's position in the One Health approach to fight antimicrobial resistance (see Veterinary Applications page 5, and section 3.1.3.1).

  This range was supplemented by the marketing of biplates: the intelligent association of 2 culture media in a single box, providing 2 items of information in one reading: CHROMID® CARBA SMART, CHROMID® SMART MRSA/*S. aureus*, as well as equipment for testing laboratory environments.

The Company is also developing a range of culture media and equipment intended for environmental control, to detect risks of contamination and thereby reduce healthcare associated infections by implementing isolation and hygiene measures.

In industrial applications, the Company develops and markets various specific media (such as the CHROMID® line) for the control (culture, detection, identification and quantification) of microorganisms in food, pharmaceutical and cosmetic products and in the manufacturing environment (air, surface, water, etc.). In these three areas, bioMérieux develops innovative analytical solutions to rapidly identify any bacterial infection during the manufacturing process. In particular, bioMérieux markets the culture medium ALOA®, intended for the search for *Listeria spp* and *Listeria monocytogenes* and for counting *Listeria monocytogenes* in food and environmental samples. ALOA® is also the medium recommended by the reference method (standards EN ISO 11290-1 and ISO 11290-2). Lastly, the methods ALOA® One Day (search for *Listeria spp* and *Listeria monocytogenes*), ALOA® Count and ALOA® Confirmation are validated AFNOR ISO 16140. Furthermore, in the food industry, bioMérieux markets CHROMID® EHEC, a culture medium for detecting the bacteria enterohaemorrhagic *Escherichia coli*.

Also, bioMérieux has developed solutions for environmental monitoring appropriate to the pharmaceutical sector. The irradiated boxes COUNT-TACT® 3P® and 90mm 3P® are intended to be used in clean rooms and isolators. They follow a specific 3-stage manufacturing process: production in a clean room, triple-packaging on the production line in a controlled atmosphere and irradiation of the final product.

bioMérieux's offering also includes a comprehensive range of products for the veterinary (microbiological and immunological) diagnosis of livestock and domestic animals aimed at detecting, identifying and conducting antibiotic susceptibility tests on microorganisms that cause infections.

Solution for quantitative microbiological quality control: BIOBALL®

Companies and pharmaceutical laboratories must test and ensure the quality and safety of their products. BIOBALL® is a small water-soluble ball containing a precise number of microorganisms which can be added directly to samples of media or Matrices, and thus control the fertility of culture media. These calibrated microbial reference strains do not require any preparation or pre-incubation.

Identification of bacteria and manual antibiograms: ranges API®, ATB™ and RAPIDEC® CARBA NP

The Company markets the analytical profile indices API®, recognised as leaders at the worldwide level in the identification of bacteria. It markets 23 analytical profile indices API® and ID32 covering almost all types of the most common bacteria (approximately 800 bacteria and yeasts). The database API® constitutes the reference for interpreting analytical profile indices. It is available on the Internet (APIWEB™).

From its API® and ATB™, ranges, the Company developed ATB™ New, a semi-automated instrument intended for emerging countries. This system, available in China since 2016, includes the analytical profile indices and antibiograms compliant with the CLSI® (Clinical and Laboratory Standards Institute), and software for the analysis of results. In 2014, the Company launched RAPIDEC® CARBA NP to supplement its offer intended to fight antimicrobial resistance. This new manual test, very easy to use, notably with media from the range CHROMID® CARBA, or together with the automated antibiogram VITEK® 2, offers reliable results and is the first solution that can detect or confirm, quickly and economically, the production of carbapenemases by gram negative bacilli. This test is especially useful for improving patient management and is a better way to control healthcare-associated infections. Carbapenemases are a group of enzymes that hydrolyze carbapenems, a sub-class of antibiotics with the broadest spectrum of antibacterial activity, Carbapenemase are a group of enzymes that hydrolyse carbapenems, a sub-class of antibiotics with the broadest spectrum of antibacterial activity. RAPIDEC® CARBA NP received FDA authorisation in 2017, thus making it available to be marketed in the United States.

RAPIDEC® CARBA NP has been the subject of numerous scientific publications and posters. and was mentioned in a 2015 article published in CAP TODAY. Its performance was highlighted by the communication and public relations office of the ASM (American Society of Microbiology) during the ICAAC/ICC(1). Lastly, this test was mentioned in certain recommendations, including the technical memorandum on the detection of strains of enterobacteria producing a carbapenemase, published in May 2016 by the French National Reference Centre on antimicrobial(2).

The API® range is also used by industrial customers in the food, pharmaceuticals, cosmetics and veterinary fields to identify contaminants (disease-causing organisms or not).

Manual measurement of the minimum inhibitory concentration (MIC) of an antibiotic: the range ETEST®

ETEST® is a technique for dissemination in an agar medium enabling the minimum inhibitory concentration (MIC) of an antibiotic to be measured. ETEST® is useful to guide antibiotic therapy by measuring the sensitivity of germs to antibiotics and detecting resistance mechanisms. This technique is perfectly adapted to rare bacteria or those with difficult growth, and supplements the VITEK® offer, enabling testing the sensitivity of a newly-released antibiotic before it is included in the VITEK® cards, and adding a test for a particular antibiotic for which more fine-grained information is necessary.

The agar media necessary to measuring the minimum inhibitory concentration (MIC) of an antibiotic were developed and/or validated to facilitate the use of ETEST®.

New ETEST® strips each associating 2 antibiotics were launched in December 2016 on the European market, and in 2017 on the American market: ETEST® Ceftolozane/Tazobactam (C/T 256) and ETEST® Ceftolozane/Avibactam (CZA 256). These new strips provide a quick and reliable solution to determine the minimum inhibiting concentration (MIC) of the antibiotics ceftolozane and tazobactam, as well as ceftolozane and avibactam, for aerobic Gram-negative bacteria, enterobacteria and *Pseudomonas aeruginosa*. In 2018, bioMérieux enhanced its ETEST® antibiotic susceptibility testing product line, launching ETEST® Piperacillin/Tazobactam and ETEST® Telavancin in the United States in early 2019. The ETEST® solutions provide significant added medical value for the clinician and the patient: having a diagnostic solution that enables the right antibiotic to be administered, with the correct dose and at the right time, is an important factor in fighting the development of resistance, a real challenge in the field of public health.

(1) ICAAC: Interscience Conference on Antimicrobial Agents and Chemotherapy. ICC: International Congress of Chemotherapy.
(2) http://www.cnr-resistance-antibiotiques.fr/expertise-des-souches-1.html

Identification of bacteria and automated antibiogram VITEK® 2

As well as the manual and semi-automated products presented above, the Group has a leading position in products for identification and automated antibiograms with its VITEK® 2 offer.

Launched in 1997, the VITEK® 2, the second generation of the VITEK®, range, enables quicker identification and antibiogram results, thanks to an innovative and miniaturised consumable, the VITEK® card, which is applicable very broadly. A pioneer in expert systems for the interpretation of resistance, bioMérieux has integrated, into its VITEK® 2 system, the Advanced Expert System (AES™), which is the reference in its field.

The Company subsequently launched:

- in 2004, VITEK® 2 Compact: this instrument features a new colorimetric reading mode and new expert systems, which, due to its smaller size, is aimed at small and mid-sized laboratories running between 30 and 60 tests per day;
- in 2007, VITEK® 2 Compact 15, for laboratories carrying out fifteen to thirty tests per day;
- in 2009, VILINK™, an IT solution enabling users of VITEK® 2 to benefit from remote intervention to resolve incidents and for maintenance operations, using a fast and secure connection.

bioMérieux regularly enhances its menu of identification and antibiotic susceptibility tests through software updates and by developing new test cards that include new antibiotics. Thus, in 2017, the effort covers the development of a new version of the software VITEK® 2, including the new antibiotic combination Ceftolozane/Tazobactam, new identifications and new phenotypes in the AES™ expert system, updated through the analysis of more than 200 recent publications. The VITEK® 2 solution with its expert analysis system AES™ and ETEST® can fulfil the requirements of clinicians, helping them in their antibiotic prescriptions. At the same time, the epidemiological monitoring software VIGIGUARD™ can study and monitor the evolution of resistance at the level of each clinical service, and adapt the antibiotic therapy protocols to the microbial ecology.

The VITEK® range is also used by industrial customers in the food industry and in the pharmaceutical and cosmetic fields, which have to identify disease-causing organisms present in products or in the production environment. In the veterinary field VITEK® solutions enable identification and can produce the antibiogram for bacteria responsible for pathologies in animals.

MALDI-TOF mass spectrometry solution: VITEK® MS

Mass spectrometry is a technique used to identify and determine the chemical structure of multiple molecules simultaneously, analysing the mass and charge of their ions. The proteomic molecular signatures obtained can be used for the rapid identification of isolated colonies of bacteria. This bacteria identification technique is appropriate for laboratories that handle large volumes of samples as a quick and cost effective solution to obtain results. However, MALDI-TOF mass spectrometry cannot test sensitivity to antibiotics.

In 2011, the Company launched the CE marked version of its mass spectrometry solution, VITEK® MS, for bacterial identification in clinical microbiology laboratories. This identification solution is fully integrated into the VITEK® platform *via* the middleware MYLA®. It is the fruit of the partnership between Shimadzu and its instrument supplier subsidiary, Kratos Analytical Ltd., and the acquisition of the AnagnosTec database.

In 2012, the Company marketed VITEK® MS Plus, a system enabling VITEK® MS customers to use the mass spectrometry system beyond their daily identification routines, performing research work or building their own databases.

A version is available for industrial customers. It complies with Title 21CFR Part 11 of the American Code of Federal regulations on traceability, and includes a specific database developed by bioMérieux.

In 2013, VITEK® MS was granted 510(k) *de novo* clearance by the FDA, becoming the first mass spectrometry system cleared by the FDA for the routine detection of a comprehensive database of disease causing microorganisms (Gram+, Gram- and certain yeasts) in clinical microbiology laboratories. It is the only one to be fully integrated for antibiogram tests thanks to its connection with the VITEK® 2 system.

In 2016, bioMérieux launched version 3 of the VITEK® MS database, making it possible for clinical microbiology laboratories to rapidly identify mycobacteria, the bacteria *Nocardia* and mould. This version received 510(k) clearance from the FDA in 2017. The new VITEK® MS reagent kits developed specifically for these disease-causing organisms can facilitate the work of the laboratory by providing all reagents necessary to the preparation of these microorganisms.

Service offer for epidemiology in microbiology: bioMérieux EPISEQ™

In November 2014, bioMérieux announced a partnership with Illumina, a worldwide leader in sequencing, to market, in collaboration with services laboratories, a new-generation sequencing solution dedicated to epidemiological monitoring of bacterial infections.

In December 2015, as part of this partnership, bioMérieux announced the launch of its first next-generation sequencing service to help microbiology laboratories fight healthcare associated infections. This service was offered initially in Europe and concerned *Staphylococcus aureus*. At the beginning of 2019, a new version called EPISEQ™ CS based both on the knowledge of bioMérieux in microbiology and the expertise of Applied Maths in software development, was launched. This new version aims to cover the 13 disease-causing organisms most frequently encountered in the case of healthcare-associated infections and may be applicable whatever the sequencer used.

Blood culture: the BACT/ALERT® range

The BACT/ALERT® 3D automated system can quickly and automatically detect positive blood cultures in order to diagnose septic episodes or septicaemia. The BACT/ALERT® 3D system can also, using specific media, detect cultures that are positive to mycobacteria, for the diagnosis, among others, of pulmonary tuberculosis. In 2018, bioMérieux developed and launched a new and improved version of these bottles intended for the diagnosis of tuberculosis. The flexibility, ease of use and modularity of BACT/ALERT® 3D enables laboratories of all sizes to associate blood culture and the culture of mycobacteria on the same instrument. The use of unbreakable plastic bottles improves safety for technicians.

BACT/ALERT® VIRTUO™, the new generation of BACT/ALERT®, which is highly automated, has been available in the United States since 2017 and in countries recognising CE marking since 2014. The regulatory registration process for this product is under way, notably in China. This unique and innovative system of blood culture for the detection of disease-causing microorganisms, completes the BACT/ALERT® range. It uses precision robotics to automatically load and unload reagents, which means that any lab staff member can load bottles at any time. The system reduces hands-on time for increased lab efficiency. BACT/ALERT® VIRTUO™ provides quicker detection time than the current BACT/ALERT® system thanks to a high-fidelity optical system and a new detection algorithm, which reduces the detection time to an average of four hours.

The new generation of the blood culture system BACT/ALERT® VIRTUO™ can connect up to 3 additional incubation units to a BACT/ALERT® VIRTUO™ control module, thus creating an integrated configuration. This modular configuration offers an incubation capacity of between 400 and about 1,700 bottles, enabling large volumes to be managed going up to 100,000 blood culture bottles per year, *via* a unique point of entry for an optimised workflow. The blood culture bottles are automatically transferred in the system, enabling better use of the capacity of the instrument and increased productivity. This new version can provide a real-time measurement of the volume of blood in each blood culture bottle, to make sure that the quantity of blood sampled is compliant with the recommendations and practices of each organisation.

Its increased efficiency enables laboratories to deliver fast results to clinicians, thereby helping to improve patient care and optimise laboratory productivity.

Currently, the BACT/ALERT® culture media offers standard bottles, FAN bottles containing activated charcoal, the new FAN Plus bottles using the patented Absorbent Polymeric Beads (APB) technology and MP bottles for the detection of pulmonary tuberculosis.

For industrial applications, the range of BACT/ALERT® 3D systems is used for controlling the sterility of biopharmaceutical products, for microbiological control of drinks and for quality control of blood products, and more specifically platelets, for which BACT/ALERT® is the detection method that is most used throughout the world.

"Lab Efficiency" (Operational efficiency in clinical microbiology laboratories)

Clinical microbiology laboratories are aiming to further improve automation, significantly enhance their operational efficiency, make up for the growing shortage of specialised staff and obtain the accreditation needed to operate while streamlining workflows, delivering faster and more standardised results and improving traceability of analyses.

In addition to its "traditional" offer in automated microbiology systems, the Company has other new platforms:

- PREVI™ Color Gram, an automated Gram colouring system (OEM agreement with the ELITech Group);
- RAL STAINER, an automated mycobacterial staining system for the diagnosis of tuberculosis (distribution agreement with the company RAL);
- UF-1000i/500i, an automated urinary screening system based on fluorescence flow cytometry (distribution agreement with the Japanese company Sysmex);
- WASP®, an automated seeding system and WASPLab®, an intelligent incubation system providing high-resolution images of the culture media and improving the speed, interpretation, reliability and accessibility of the results (distribution contract with the Italian company Copan). These solutions enable complete automation of the microbiology process;
- in 2018, artificial intelligence software (PhenoMATRIX™) was integrated into WASPLab®. It enables the analysis and automatic sorting of agars incubated in WASPLab® thanks to the combination of patient data (extracted from the laboratory's information system) and the analysis of images *via* highly efficient algorithms.

New IT solution for clinical microbiology laboratories: MYLA® and VILINK™

Managing laboratory information helps to optimise the care and monitoring of patients in healthcare units. Launched in 2010, MYLA® is an IT application for connecting instruments to the laboratory's information system. Innovatively designed, MYLA® can control the daily activity of the laboratory. It can:

- optimise the flow of data in the laboratory;
- consolidate data from microbial identification tests and tests on antibiotic sensitivity (ID/AST: VITEK®) and the blood cultures (BACT/ALERT® 3D and BACT/ALERT® VIRTUO™);
- publish dashboards adapted to user profiles;
- real time display of information from connected instruments and rapid processing alerts;
- remote access for its users, *via* a secure network connection.

MYLA® can also use this data to best advantage in the form of epidemiological reports that can be produced on demand or programmed in advance, enabling accurate monitoring of the laboratory's activity and quality indicators, as well as trends observed on the evolution of resistance per service and/or the type of sample.

In order to increase the efficiency of the laboratory, VILINK™ is an IoT (Internet of Things) tool, which enables the diagnosis, updating and remote support of bioMérieux equipment, to ensure maximum operational availability of the laboratory's diagnostics tools. VILINK™ also has resources for carrying out preventive maintenance so that bioMérieux technicians can intervene remotely at any time. Lastly, VILINK™ can also provide the latest versions of software embedded in bioMérieux instruments through programmed and secure remote updates.

Counting microorganisms (quality indicators): TEMPO®

In 2005, the Company marketed TEMPO®, the first automated microbiological control system designed specifically for industrial applications. TEMPO® is a system for counting bacterial and fungal flora that may be present in food. This system is targeted at the control laboratories of industrial food groups and independent industrial laboratories. TEMPO® can check very varied food products.

Since then, the Company has developed a complete menu of tests, also called TEMPO® cards, which permit quantification of *Escherichia coli*, coliforms, total coliforms, enterobacteria, yeast and mould, staphylococcus, lactic bacteria, bacterial flora, total aerobic flora and *Bacillus cereus*. In order to respond to changes in American and European regulation relative to poultry meat, a new test for counting Campylobacter bacteria was launched in 2018.

All of these tests are validated by AOAC or AFNOR/ISO.

In 2016, a new application specially developed for cosmetic industries was launched: TEMPO® Challenge Tests. These new tests (TEMPO® CTB and TEMPO® CTF) can check whether cosmetic products and personal hygiene products put on the market are properly protected against any microbial contamination introduced during their use. This new solution fulfils the need to simplify these analyses, which are very time-consuming for the laboratories.

Also, connection software is marketed to enable the exchange of information between the VIDAS®, TEMPO® platforms and the IT system of food industry laboratories, thus ensuring that analyses can be traced, from the initial sample to the final result communicated to the manufacturing site.

Instruments for preparing samples and culture media, and instruments for fast, automated microbial detection in industrial quality control laboratories: Blue Line™

Through the acquisition of the company AES, bioMérieux has obtained a range for the preparation of samples and culture media, Blue Line™, notably in the food industry, which can optimise standardisation and productivity of laboratories. This range includes:

- DILUMAT™ to perform the dilutions stage; a new generation of instruments including RFID (Radio Frequency Identification) technology enabling better traceability of samples in laboratories;
- SMASHER™ for grinding food samples;
- MASTERCLAVE® for preparing agars and enrichment broths totally automatically.

Furthermore, the offer includes the Labguard® system for monitoring temperatures and environmental parameters within laboratories and production premises.

Rapid microbiology instruments using cytometry

The cytometry analysers CHEMUNEX® are based on a technology associating a fluorescent viability marker and detection by laser beam. They are an alternative to the traditional culture of microorganisms in a Petri dish and can provide results extremely quickly.

Due to its speed and reliability, this technique is becoming established in most food, cosmetic and pharmaceutical groups. It can be used to release batches before finished products are put on the market, and for controlling production plants by enabling ultra fast checking of raw materials, production hygiene parameters and semi-finished products.

The range includes the instruments SCANRDI® and D-COUNT®:

- the scanning cytometry equipment SCANRDI® (also known as solid-phase cytometry) is used by the pharmaceutical industry for testing medicines that are sterile (*e.g.* injectable) or not (*e.g.* eye lotion), as well as pharmaceutical-quality water. It is currently the fastest microbiological control technique in the world and gives a result in several hours;
- the D-COUNT® flow cytometry is particularly adapted to the microbiological testing of products that are difficult to filter: dairy products, fruit juice and cosmetics. This ultra-fast technology saves users money while ensuring the safety of the released products.

Detection of endotoxins

In 2018, bioMérieux announced the launch of ENDOZYME® II GO, a new test for detecting endotoxins of the range bioMérieux ENDONEXT™ based on recombinant horseshoe crab Factor C (rFC). This new test, arising from the joint expertise of bioMérieux in microbiology and Hyglos GmbH in the detection of endotoxins, enables testing for endotoxins in water of pharmaceutical quality, injectable medicines and other pharmaceutical products. It enables an easy and rapid workflow.

The rFC technology, authorised by the European Pharmacopoeia since 2016, enables complete elimination of the use of horseshoe crabs, a species that is threatened in Asia and protected in the United States, whose blood is used in most tests for the detection of endotoxins currently available on the market.

Traditional methods for the detection of endotoxins require the preparation of standard dilutions and internal checks. These manual preparation stages are long and may lead to variable or even invalid results. The new test ENDOZYME® II GO uses the GOPLATE™ system, ready to use, which reduces by more than 50% the handling time compared to traditional tests for endotoxins on microplates, and ensures great precision for establishing the curve for calibration and verification of positive internal checks.

1.2.3.2 Immunoassays

This technology, based on an antigen-antibody reaction, detects and measures infectious agents, such as (bacteria, viruses, and parasites) and measures the specific biomarkers of various pathologies (metabolic, hormonal, infectious, etc.).

The VIDAS® range

VIDAS® is a multi-parameter instrument using ELFA (Enzyme Linked Fluorescent Assay) technology and based on the concept of the unit test. The system can automatically implement all stages in biological analyses and thus detect and/or quantify (i) antigens or toxins, viral or bacterial infection indicators, (ii) antibodies measuring the immune response to an infection and (iii) various markers of pathologies such as cancer, metabolic illnesses or hormonal dysfunctions. Analyses may be run as a series or a customisable test, and it is possible to reach a rate of up to 50 tests per hour. VIDAS® exists in a compact version, the MINI VIDAS®, and since 2013, in a more automated version with increased traceability, VIDAS® 3.

Launched in 1991, VIDAS® has had real success. It is recognised for its quality and reliability. VIDAS® is used firstly as an additional platform for innovative high medical value tests in consolidated central laboratories, and secondly, as a platform for routine tests in laboratories with little consolidation.

The new generation VIDAS®, VIDAS® 3, has enhanced the range of VIDAS® instruments and provided significant new functionality that supports its position as a complementary platform dedicated to high medical value tests, in particular with enhanced automation and improved traceability. VIDAS® 3, which can carry out a maximum of 36 tests per hour, uses the same reagents as the other instruments of the range. VIDAS® 3 was CE marked in 2013. It obtained China SFDA approval in the first half of 2014 and FDA clearance in the summer of 2015.

The VIDAS® menu includes more than 70 clinical parameters covering a wide range of human pathologies, including HIV, hepatitis, cardiology, sepsis, thyroid disorders, certain cancers, perinatal infections and infertility. In 2018, bioMérieux enhanced its menu of tests with the launch of VIDAS® PTH (1-84). This test, which can quantitatively measure the biologically-active form of the parathyroid hormone, is used for diagnosing and monitoring acute kidney injury. This test supplements the VIDAS® menu dedicated to bone and mineral metabolism and includes the vitamin D dose test.

The VIDAS® menu includes 7 high medical value tests:

- VIDAS® B•R•A•H•M•S PCT™; this test can measure procalcitonin (PCT), which is a biomarker recognised as the reference for the early detection of sepsis in seriously-ill patients. The test helps doctors to make an early determination of whether an infection is bacterial or viral and provides information on the severity of a patient's condition in order to determine the appropriate treatment. CE marked and approved by the FDA in 2007, the VIDAS® test on dosing procalcitonin obtained, in 2016, the approval of the FDA for use in monitoring for 4 days after the initial diagnosis of a sepsis. In 2017, bioMérieux received an additional FDA clearance so this assay could also be used to help doctors prescribe the optimal antibiotic therapy or determine whether to reduce treatment in two common clinical situations, lower respiratory tract infections and sepsis;
- VIDAS® D-Dimer Exclusion™ for the diagnosis by exclusion of deep-vein thrombosis and pulmonary embolism, for which a new and faster version was approved by the FDA in 2012. Since 2017, this test has also been used to identify, among women undergoing long-term anticoagulant treatment following a first episode of idiopathic venous thromboembolic disease, those who are at low risk of recurrence and whose treatment may be discontinued;
- the test VIDAS® Troponin I Ultra was replaced from the end of 2015 by the test VIDAS® High Sensitive Troponin I compliant with international cardiology recommendations, as an aid to the diagnostic of myocardial infarction and as an aid to the stratification of risk of patients presenting symptoms suggestive of an acute coronary syndrome;
- VIDAS® NT-proBNP; this test enables the dosing of NT-proBNP, a quantitative marker of the cardiac function. It provides objective information that proves useful in the differential diagnosis of heart failure (respiratory diseases or pulmonary embolism, for example). In 2013, the Company developed a second generation of the test, VIDAS® NT-pro BNP II;
- VIDAS® EBV, launched in 2009 and intended for the detection of the Epstein-Barr virus (EBV), responsible for 80% of cases of infectious glandular fever;
- VIDAS® C. difficile GDH for the automated detection of GDH, an enzyme specifically produced by the bacterium *C. difficile*. It is the only FDA-cleared automated immunoassay test for GDH detection;
- VIDAS® AMH (1) was launched in mid-2016. Anti-Müllerian hormone (AMH) testing assesses the ovarian follicle reserve in women represents a significant advance in the treatment of female infertility. In addition, AMH can play a role in the diagnosis of ovarian dysfunction (caused for example by polycystic ovary syndrome). This test completes the VIDAS® range dedicated to female health, a range which is currently recognised in this market.

Also, the Company intends to continue to enhance its menu of VIDAS® high medical value tests for emergency applications and critical situations. Thus, in April 2018, bioMérieux acquired Astute medical Inc., which developed the NephroCheck® test used in the context of acute kidney injury. In 2017, the Company signed an agreement with Banyan Biomarkers to develop and market markers for traumatic brain injuries.

In industrial applications, the VIDAS® menu is composed of 16 tests for detecting disease-causing organisms. It includes reagents based on technology using the recombinant proteins of phages developed by Hyglos GmbH, acquired by bioMérieux in 2016, such as the reagent VIDAS® UP, for the detection of *Escherichia coli* O157 (including H7), the bacteria responsible for numerous cases of food poisoning, and which may in some cases cause death, VIDAS® SPT for the detection of *Salmonella* bacteria in food and VIDAS® UP Listeria for the detection of *Listeria* bacteria that commonly cause infections originating in food.

Most of the VIDAS® tests were validated by official organisations such as AFNOR Certification, according to ISO standards or the international AOAC standard. In 2013, certain tests were granted AOAC International approvals. VIDAS® UP Salmonella (SPT) was validated as an Official Method for a great variety of food products and environment samples, while VIDAS® UP Listeria (LPT) and VIDAS® Listeria monocytogenes Xpress (LMX) were simultaneously approved as official methods for analysis (OMA), which demonstrates the reliability and importance of this complete solution for *Listeria* screening.

The VIDAS® system is also used by veterinary laboratories, notably the tests VIDAS® Progesterone, VIDAS® Cortisol S and VIDAS® T4.

Rapid tests

Rapid tests

Rapid tests are manual tests based on antigen-antibody reactions. The low cost and ease of use of these tests make them particularly suitable for users without access to laboratory infrastructure such as in emerging countries, mass screening programs funded by governments or non-governmental organisations. This range also offers a solution for rapid diagnosis at patients' point of care (emergency services, physicians' office laboratories, etc.). It is composed of tests manufactured on the Shanghai site (China): VIKIA®, intended for emerging markets and BIONEXIA®, for the laboratories in developed countries. The range currently includes 14 rapid tests that help with the treatment of a range of pathologies such as viral gastroenteritis, HIV infections, tonsillitis and pharyngitis.

(1) Information on the availability of the product: www.biomerieux-diagnostics.com/vidas-amh-countries-list.

1.2.3.3 Molecular biology

This technology is based on the detection of genetic sequences of DNA or RNA that are characteristic of a bacterium, virus, protein or cell. It comprises three steps: (i) the extraction of the genetic sequences (preparation of the sample), (ii) the amplification (or multiplication) of the number of sequences, and (iii) their detection.

Syndromic approach to the diagnosis of infectious diseases: BIOFIRE® FILMARRAY®

The BIOFIRE® FILMARRAY® range offers clinicians a "syndromic" diagnostic approach. CE marked and approved by the FDA, this PCR multiplex molecular biology system, easy to use, accurate and rapid, can identify, in a single reagent or panel, the most frequent disease-causing organisms causing a syndrome, in about 1 hour.

This range has been growing strongly in the United States for several years. The Company is intensifying the development of BIOFIRE® FILMARRAY® internationally. BIOFIRE® FILMARRAY® responds to the growing demand by hospital laboratories and clinicians for high medical value solutions in the diagnosis of infectious diseases.

BIOFIRE® FILMARRAY® is the entirely integrated technology, the market leader in multiplex molecular biology tests.

The menu BIOFIRE® FILMARRAY® is composed of the following 9 panels, CE marked and/or approved by the FDA:

- the Respiratory panel, a complete panel launched in 2011, which can simultaneously analyse 20 viruses and bacteria causing respiratory diseases, directly from nasopharyngeal swabs in a virus transport medium;
- the panels Respiratory 2 (RP2) and 2 plus (RP2plus), launched in 2017, which can respectively analyse 21 and 22 viruses and bacteria at the origin of respiratory illnesses, directly from naso-pharyngeal swabs in a transport medium;
- the Respiratory EZ (RP EZ) panel, marketed in 2016, which detects 11 viruses and 3 bacteria which may be the cause of respiratory infections and is authorised in the United States for use outside the laboratory (CLIA-waived);
- the panel for the identification of blood cultures (sepsis), marketed in 2013, can directly identify 27 targets from a positive blood culture: 8 gram positive bacteria, 11 gram negative bacteria, 5 fungal species and 3 resistance mechanisms;
- the Gastro-intestinal panel, launched in 2014, to identify the 22 most common causes (13 bacteria, 4 parasites and 5 viruses) of infectious diarrhoea, directly from a stool sample in a Cary Blair transport medium;
- the Meningitis – Encephalitis panel, marketed in 2015, identifies, from a sample of the cerebrospinal liquid, 14 disease-causing organisms (6 bacteria, 7 viruses and 1 yeast) responsible for meningitis and encephalitis;
- the Pneumonia and Pneumonia *plus*, panels, marketed in 2018, which can analyse respectively 33 and 34 viruses and bacteria as well as their antimicrobial resistance genes on samples of the different types: sputum, endotracheal aspirates or bronchoalveolar lavage (mini-BAL included).

The BIOFIRE® FILMARRAY® range is composed of several platforms:

- FILMARRAY® 2.0: instrument of compact size, its main characteristic is a greater throughput, with the laboratory being able to process up to 176 samples per day. This version can operate between 1 and 8 FILMARRAY® 2.0 units together, connected to a single computer, and can be connected to the laboratory's IT system;
- FILMARRAY® Torch: high-throughput system of a much more compact size, it is modular and scalable. The 2 module base configured FILMARRAY® Torch is capable of testing up to 44 patient samples per day, while the 12 module, fully configured FILMARRAY® Torch is capable of testing up to 264 patient samples per day. In 2016, FILMARRAY® received the Medical Biology Trophy, the Jury Prize at the International Biology Days. This award is a testament to the breakthrough achieved with this solution;

- FILMARRAY® EZ: this configuration, which includes a single FILMARRAY® 2.0 system, offers a simplified user interface and provides reports facilitating the reading of results. It received 510(k) accreditation and CLIA (Clinical Laboratory Improvement Amendments) waiver from the FDA, which permits use of the test outside traditional clinical laboratories in sites such as physician offices and urgent care centres. This new offer is available to the American market only for the use of the RP EZ panel.

Offer covering the automation of the molecular biology laboratory and the extraction range®

For the extraction of DNA and RNA, the Company's products use the BOOM® technology, established as a preferential method for all molecular biology tests. This range offers both a semi-manual solution, NUCLISENS® MINIMAG®, and an automated solution, NUCLISENS® EASYMAG®. In the field of automated extraction, bioMérieux is an important player; the NUCLISENS® EASYMAG® system can perform 24 extractions of great purity in 40 minutes, and offers great extraction flexibility.

In 2016, the extraction range was enhanced with the launch of EMAG®, a completely automated new-generation system for the extraction of DNA and RNA.

EMAG® relies on the quality of extraction of nucleic acids and the robustness and simplicity of use which made NUCLISENS® EASYMAG® successful, providing automation, traceability and a greater throughput, to which is added flexibility that is currently unequalled on the worldwide market. The efficiency of the extraction of nucleic acids from a sample therefore has a decisive impact on the quality of a diagnostic test's final result. This step is especially challenging as the samples can be highly variable.

Usable with a great variety of biological samples: total blood, plasma, serum, faeces, respiratory samples and cerebrospinal liquid, the new EMAG® system can obtain purified nucleic acids of excellent quality according to a standardised extraction protocol. EMAG® can extract 48 samples in 90 minutes directly from the primary sample and process all types of samples in a given series. The enhanced flexibility and traceability of this automated, high throughput platform allow laboratories to monitor patients as soon as this becomes necessary, regardless of the sample type. EMAG® is marked CE and commercially available in Europe and the United States and has been following a gradual launch programme in other countries since 2017.

In 2014, the Company launched ESTREAM™, an automated preparation station for samples for PCR tests. This new solution can optimise the analysis flows and improve standardisation and traceability in molecular biology laboratories, with the aim of improving the quality of results provided to clinicians.

That same year, bioMérieux renewed and expanded its distribution agreement with Hain Lifescience, a company specialising in molecular diagnostics. Under this 10 year agreement, bioMérieux will become the exclusive distributor of Hain's current mycobacteria molecular tests in most countries. These tests enable the rapid and accurate diagnosis of tuberculosis.

In 2015, a new version of the NUCLISENTRAL® middleware was launched. This middleware contributes to the optimisation of workflows within molecular biology laboratories, notably those using the tests ARGENE® and the Company's automated sample preparation units (EASYMAG®, EMAG® and ESTREAM™).

The ARGENE® range

The tests of the ARGENE® range are used for detecting and monitoring immunocompromised patients, while waiting for a graft or transplant. Using PCR technology (polymerase chain reaction), they detect cytomegalovirus, Epstein Barr virus, adenovirus, enterovirus, infectious respiratory pathogens including MERS CoV, responsible for Middle East Respiratory Syndrome, and the herpes virus. In 2018, bioMérieux launched the quantitative test HHV6 R-GENE® for the specific detection of the herpes virus in patients who have undergone transplants.

Detection of microorganisms (viruses and bacteria) for the food industry: GENE-UP®

Intended for players in the food industry, GENE-UP® enables microbiological checks to be carried out on food, raw materials and the production environment. This innovative solution considerably simplifies laboratory workflow, providing gains in productivity and speed. This new generation system combines the expertise of bioMérieux, world leader in microbiological control of food, and BioFire, a company recognised for its know-how in molecular biology systems.

The menu for the GENE-UP® platform enables detection of the disease-causing organisms that are most frequently searched for in the food industry, such as *Salmonella*, *Escherichia coli* O157:H7 and *Listeria spp*, *Listeria monocytogenes*, EHEC, *Cronobacter*. GENE-UP® can also detect the main viruses that are searched for in the food industry, such as Norovirus GI, Norovirus GII, Hepatitis A and Hepatitis E, thanks to the CEERAMTools® range, the worldwide leader in this segment. The methods for detecting the main food pathogens already have AOAC-RI certification that is recognised in numerous countries, such as the United States, certifying their excellent performance. The GENE-UP® methods are also validated according to the standard ISO 16140, thus guaranteeing European recognition.

1.2.3.4 Companion diagnostic tests

In 2014, the Company set up the "Companion Diagnostic" program to improve patient clinical care and treatment. The aim of the programme is to develop companion tests (as defined by the regulatory bodies) and supportive/complementary diagnostics, in partnership with pharmaceutical companies.

A companion test is a diagnostic test for selecting, by identification of a predictive marker, only the patients who are likely to receive the benefit of a targeted therapy(1).

Supportive/complementary diagnostic tests are used to stratify homogeneous cohorts of patients to be treated in clinical trials.

Furthermore, bioMérieux coordinates, in close collaboration with pharmaceutical companies, tests to determine sensitivity to antibiotics such as ETEST® and VITEK® 2. These two diagnostic solutions play an essential and complementary role for the successful launch of a new anti-infection agent:

- ETEST® is used during the clinical development of anti-infectious agents. It is then the first method used to determine antibiotic susceptibility during the launch of a new molecule, facilitating its rapid adoption and prescription by clinicians to improve patient care;
- this new anti-infectious agent can then be incorporated in the VITEK® 2 cards, to automate the determination of the minimum inhibitory concentration (MIC). Automating the process in this way allows the molecule to be adopted and prescribed a few years after its launch.

(1) Source HAS: Haute Autorité de Santé.

1.2.3.5 Services and solutions

In line with its strategy, bioMérieux continues to develop services in addition to its products in a solutions-based approach to help clinical and industrial laboratories tackle their current and future challenges.

Services for laboratory organisation

bioMérieux offers a Lab Consultancy service based on Lean Six Sigma which adapts to the specific needs of microbiology laboratories, providing customers with an objective assessment of current performance and helping them focus on current and future workflow and procedural improvements to the laboratory. bioMérieux teams work closely with laboratory staff to achieve transformation:

- enhancing efficiency and the optimal use of existing resources;
- cutting costs and optimising quality;
- redirecting laboratory technicians toward higher value-added tasks;
- efficient change management aimed at securing commitment, satisfaction and motivation of laboratory staff;
- waste reduction.

In addition, services are offered to Lab Efficiency customers to support integration into an automated system.

Training and education

bioMérieux offers a comprehensive range of training modules for technicians and biologists with the aim of developing their skills in the routine and expert use of its products, various scientific issues and professional development. These training courses may be delivered in the classroom or remotely through an e-learning platform. This platform is available in Europe (France, Germany, Italy, Denmark, Sweden, Norway, Finland and Switzerland).

The e-learning offer is composed of 12 modules (each including training and evaluation) and covers all of the main bioMérieux ranges, notably VITEK®, BACT/ALERT®, VIDAS®.

These training courses related to bioMérieux products are supplemented by scientific or technical training courses.

Quality and compliance (accreditation assistance)

In order to support laboratories in the quality and accreditation process, bioMérieux offers method evaluation solutions to validate its products for routine use, in view of obtaining laboratory accreditation.

Software solutions to interpret complex biological data

Backed by expertise over more than 20 years, Applied Maths, acquired by bioMérieux at the end of December 2015, develops and markets the BIONUMERICS® software for microbiological applications, notably in bacteriology, virology and mycology. BIONUMERICS® benefits from excellent connectivity, great reliability and the possibility of managing a large quantity of heterogeneous data: phenotype information, molecular PCR, genetic sequences, spectral profiles, complete genome maps, metadata, etc. Applied Maths serves more than 2,000 customers worldwide, primarily in Europe and the United States, focusing on leading public health organisations, academic research institutions, industrial groups and hospitals.

1.2.3.6 Rationalisation of the commercial offering

bioMérieux continuously evaluates its portfolio, aiming to rationalise its commercial offering, notably in 2016 with the elimination of the Allergie VIDAS® range and, in 2017, the elimination of the DIVERSILAB® range.

1.3 Strategy of bioMérieux

1.3.1 Competitive advantages

The Group's principal strengths are:

- a family majority shareholder, whose scientific, industrial and commercial vision has translated into financial stability, continuous sales growth and consistently satisfactory results, while successfully positioning the Company in the technologies of the future;
- a high level of expertise in the diagnosis of infectious diseases, based on over 50 years of experience in biology, which is also relevant for new areas such as industrial applications and cardiac diseases;
- a broad and balanced geographic footprint supported by a global distribution network that maximises marketing opportunities for its products and a longstanding presence in emerging countries, enabling the Group to seize market growth opportunities;
- around 80% of its sales generated in three sectors where, based on its knowledge of the market, it holds the leading position: clinical microbiology, industrial applications and molecular and syndromic diagnosis of infectious diseases:
  - a world-leading position in clinical microbiology, an extremely broad product range that can fulfil the needs of any size microbiology laboratory, one of the most complete collections of bacteria in existence, and unique expertise in bacteria and bacterial resistance mechanisms,
  - a highly respected pioneering and leading position in industrial applications, where the Company has the widest product range, and strong market positions,
  - an enhanced portfolio in molecular biology, which has created the market for syndromic diagnostics thanks to the BIOFIRE® FILMARRAY® system, covering infections of the upper respiratory tracts, sepsis, gastro-intestinal infections, as well as meningitis and encephalitis;
- an installed base, primarily composed of closed systems, which only use reagents developed specifically for these instruments and sold by bioMérieux; this installed base requires a service department made up of a team of maintenance and application engineers, who work on the ground or remotely;
- a drive for innovation to enhance the medical value of diagnostics and laboratory workflow, driven by significant investments in R&D: based on a percentage of sales, it exceeds expenditures made by its competitors. This drive leads to the regular release of new and innovative products and, combined with an efficient system to track new technologies, facilitates the identification and selection of the most promising advances, particularly in the area of diagnosis of infectious diseases;
- a genuine capacity to make targeted acquisitions and establish strategic partnerships and expertise in integrating acquired companies and forming commercial and operational synergies.

1.3.2 Strategy and priority policies

In the current uncertain economic climate, the Company feels that clinical and industrial *in vitro* diagnostics will benefit from dynamic growth drivers, as it becomes essential for medical decisions and for ensuring the safety of consumers. It also offers savings to healthcare systems and a major development opportunity in emerging countries.

In clinical microbiology especially, bioMérieux considers that there are both significant barriers to new entrants and attractive growth opportunities. According to its estimates, average annual growth on the market could pick up slightly, driven largely by the emergence of new technologies enabling faster results, and by the laboratories' need for automation to optimise workflow, standardise processes and shorten the time for returning results.

Backed by its competitive advantages, bioMérieux undertakes to be a pioneer at the service of public health, particularly in the fight against infectious diseases, and sets the following ambitions for itself:

- to consolidate its leadership in clinical and industrial microbiology. It is therefore continuing to innovate in these two areas. In order to fulfil the expectations of its customers, bioMérieux is launching new automated solutions, while continuing to improve its existing ranges;
- to consolidate its position as a pioneer and a reference in the field of the syndromic diagnosis of infectious diseases through the molecular biology range BIOFIRE® FILMARRAY®. Its strategy is based in particular on the geographical deployment of this range and the enhancement of the platform's menu of tests;
- strengthening its position as a specialist in immunoassays. It intends to capitalise on its VIDAS® franchise through marketing new parameters, through its expertise in high medical value parameters and the success of VIDAS® in emerging countries.

bioMérieux will also pursue its ambitious international development and will continue to promote innovation all over the world. Resolutely international, the Company intends to continue its expansion in the emerging countries and the adaptation of its commercial policy to the new economic context of the developed countries, notably in North America, the world's biggest market, and in Western Europe.

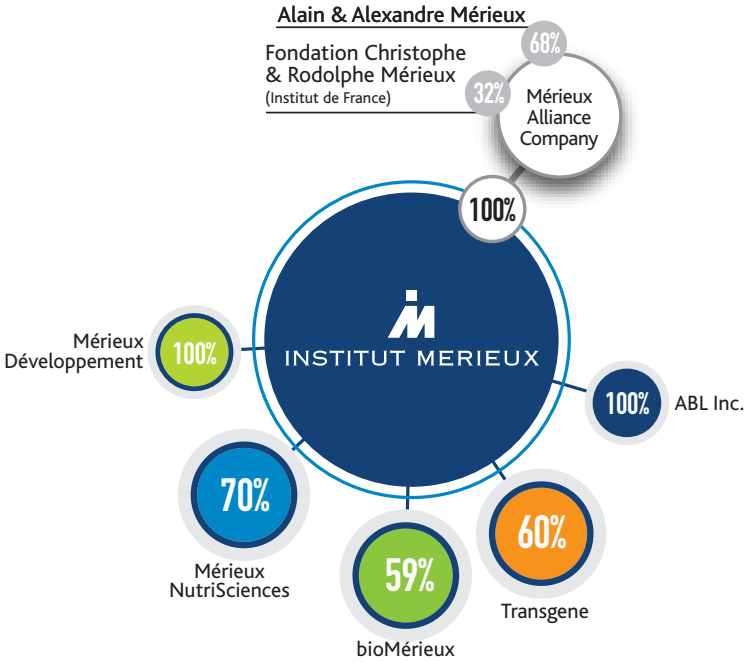
In 2015, and in the years to come, bioMérieux's main priorities will be to further develop its customer focus, enhance its operational excellence and ensure the sustainable and profitable growth of its business.

1.4 Organisation chart

1.4.1 Organisation chart within the Institut Mérieux Group

The Institut Mérieux (new name of the Nouvelle bioMérieux Alliance since 2009) holds:

- 100% of the capital of SGH, the holding entity of Mérieux NutriSciences, an American company which specialises in testing and consulting services in the field of food safety and quality;
- 100% of the capital of TSGH, the controlling holding company of Transgene SA, a company listed on Euronext specialised in immunotherapy, and Advanced Bioscience Laboratories Inc. (ABL), an American research laboratory working to order for research institutes or commercial companies;
- 100% of the capital of Mérieux Développement, which invests in companies.



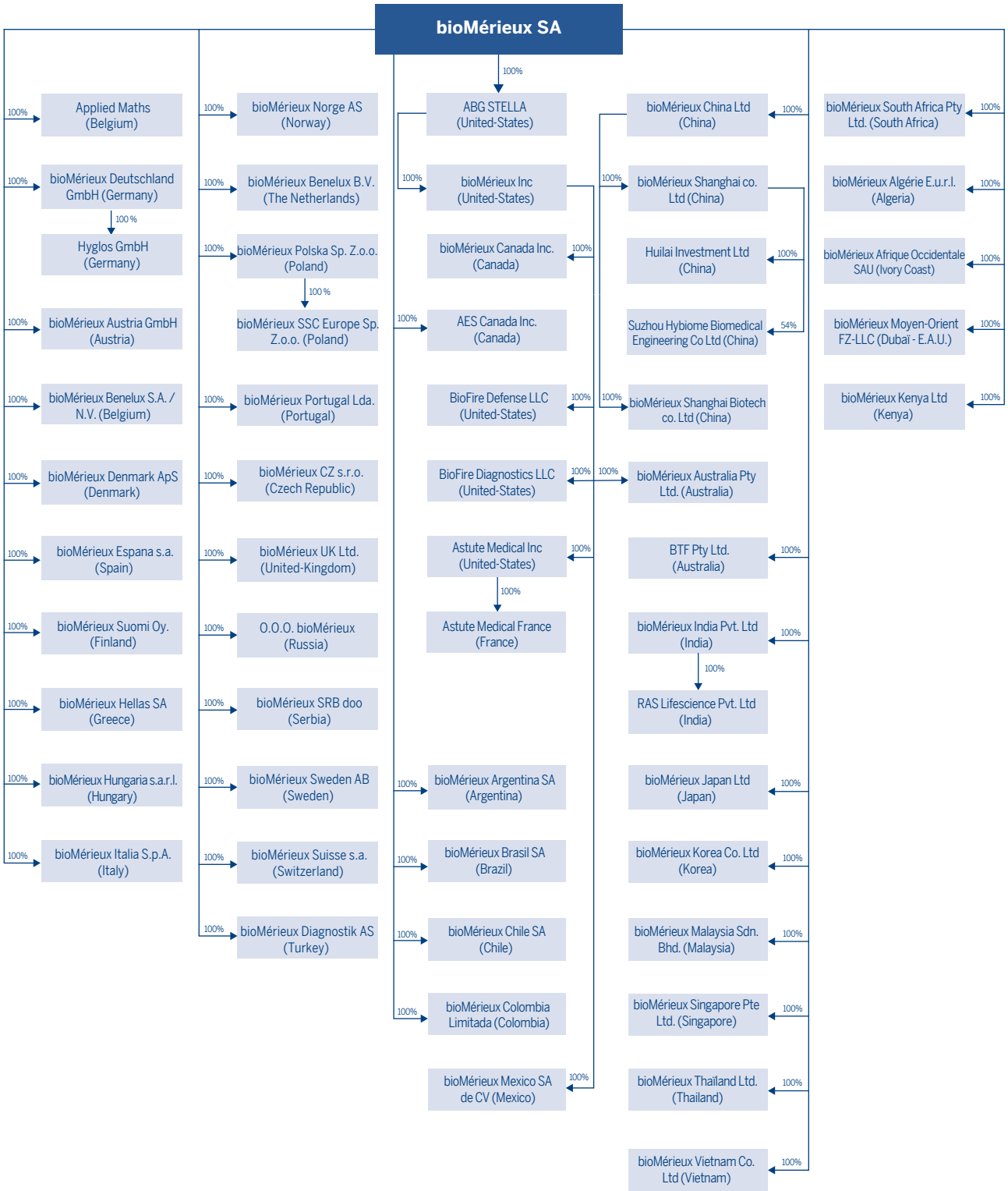
Ownership interests are rounded up to the nearest whole percentage.

1.4.2 Subsidiaries, branches and equity investments

1.4.2.1 Legal organisation chart of the bioMérieux Group on December 31, 2018

The chart below shows the relationship between the issuer's principal subsidiaries (as a percentage of capital held). Most of the subsidiaries shown below are distribution entities (see section 1.2.2.4); some also carry out R&D activities (see section 1.6) and/or have manufacturing operations (see section 1.7).

Furthermore, Note 3.3.3 in section 6.2.2 gives the list of subsidiaries.



The company AES Chemunex GmbH was liquidated on December 20, 2018.

1.4.2.2 Miscellaneous information concerning the subsidiaries and equity investments

Acquisitions of equity interests during 2018

On April 4, 2018, bioMérieux acquired 100% of the shares in Astute Medical Inc., based in San Diego (USA). Astute is a company specialised in the identification and validation of biomarkers (see Note 1.1.1 of section 6.1.2).

On November 3, 2018, bioMérieux took a 54.4% stake in the capital of Suzhou Hybiome Biomedical Engineering Co. Ltd, giving it exclusive control. This company, based in Suzhou (China) is specialised in automated immunoassay tests (see Note 1.1.2 in section 6.1.2).

During the year, bioMérieux also acquired 3.45% of the share capital of Innova Prep (Drexel, United States) and made a firm commitment to subscribe to the Sino-French professional capital investment fund (Innovation) II, for 3.3% of the fund's capital (see Note 7.2 of section 6.1.2).

New subsidiaries

During 2018, bioMérieux created a subsidiary in Kenya called bioMérieux Kenya Ltd.

Branches and representative offices

bioMérieux does not hold any subsidiaries directly. In 2018, it did not open any new branch offices. bioMérieux has branch offices in Egypt, Saudi Arabia and the Philippines.

Equity investments

Note 3.3.3 in section 6.2.2 and Note 33 in section 6.1.2 give the list of equity investments.

The portfolio of listed assets held by the Company (Labtech, Dynavax Technologies, Quanterix) is presented in Note 7.2 of section 6.1.2 and is not significant.

1.5 Quality systems and applicable regulations

1.5.1 Quality management systems

The Company is particularly attentive to compliance with quality standards and regulatory questions. It has created a Global Quality Department that ensures the implementation of a quality management system that is independent from operations. This department has added a Global Quality System and Regulatory Compliance Department. In addition, a Quality Assurance Department is involved in all phases of product development and at each stage of production, distribution and marketing.

The distribution subsidiaries are mostly certified ISO 9001.

The main manufacturing sites of the Group, which produce *in vitro* diagnostic systems, are certified as compliant with the standards ISO 9001, ISO 13485 and MDSAP (Medical Device Single Audit Program grouping the standards of the following countries: USA, Canada, Japan, Brazil and Australia), considered as the quality references for this type of activity. This certification is issued within a regulatory framework either by a certifying body acting under the auspices of regulatory authorities, or where such recourse is not required, by an outside certifying body, as part of a voluntary procedure on the part of the Company.

1.5.2 Regulatory aspects

Specific regulations apply to each product category: products for clinical customers (medical laboratories, whether private or in hospitals) and products for industrial customers (pharmaceutical, cosmetics, food and veterinary industries).

Medical *in vitro* diagnostics systems used for humans are subject to specific national or international regulations (*e.g.* European Union, United States, Japan, Canada and China). These regulations address the efficacy, performance and safety of systems.

Reagents used for microbiological testing intended for industrial customers must comply with standards that vary depending on the nature of controls and the specific requirements of users (pharmacopoeia, AFNOR-type standards, ISO, etc.). Regulations applicable to these products are part of the regulations governing industrial and consumer products and primarily concern product safety.

The production sites are regularly inspected/audited by the competent authorities.

1.5.2.1 *In vitro* diagnostics

Clinical *in vitro* diagnostics are subject to national or international regulations. The countries are divided into two groups: countries with their own regulations or that rely on the regulations of other countries and countries without specific regulations. A growing number of countries have their own procedures for releasing *in vitro* diagnostics products on the market. Some countries accept gradual compliance for products already available for sale. Other countries require full and immediate compliance with their new market launch procedures.

The main legislation that governs *in vitro* diagnostic activities in the main countries is described below. These regulations classify devices on the basis of end-applications and risk assessment, and are becoming increasingly complex. The regulatory procedures to be followed prior to the marketing of these products differ based on the risk category of the product.

Regulations applicable in the main countries

European Union

Within the European Union, the regulatory environment results from the directive 98/79/EC dated October 27, 1998 and the new European regulation IVDR (2017/746/EC) for a transition period of 5 years, at the end of which the regulation 2017/746/EC will be the only standard applicable to all *in vitro* medical diagnostic systems.

The 98/79/EC directive, transposed into French law, harmonises the market for *in vitro* diagnostics in Europe, by standardising the procedures for release to the market, by manufacturers, of *in vitro* diagnostic products.

Based on the risk level and the alternative options offered under the regulation, a manufacturer chooses the appropriate procedure to follow. Currently, about 95% of the Group's products are marketed under the sole manufacturer's responsibility following self-evaluation to determine whether they are compliant (CE marking). As a result, there is no regulatory certification period following this declaration.

For the remaining 5%, of a higher risk, it is necessary to obtain certifications of compliance before putting these products on the market. All certifications have been obtained and renewed for CE markings for all *in vitro* diagnostics products currently marketed in the European Union.

For high-risk or medium-risk products, the level of regulatory intervention is proportional to the risk. This ranges from certifying the quality management system, when reviewing the product file (design file), to the inspection of each batch prior to sale. Generally, the time period required for obtaining the necessary certifications is less than six months.

The new European regulation IVDR (2017/746/EU) regarding the framework for the launch on the market of *in vitro* diagnosis tests was published in the Official Journal of the European Commission on May 5, 2017. This regulation, applicable without national transposition, aims to strengthen the supervision of the release to the market of *in vitro* diagnostic tests: it will reduce the self-declaration of products and enable greater checks by the health authorities before and after the market release of these products. Following a transition period of 5 years during which the regulation will coexist with the European directive 98/79/EC, all bioMérieux Products must then fulfil these new requirements to be marketed in countries recognising CE marking. Since 2014, bioMérieux has been doing the work necessary to bring its products into compliance with this new regulation.

The main new features provided by these regulations are the following:

- the classification of products is now based on the risk related to the patient and/or public health;
- the manufacturers must demonstrate the analytical and clinical performance of their products and their scientific validity;
- the checks by the notified organisations are strengthened before and after marketing;
- health companies must appoint a "qualified person" in charge of vigilance, the declaration of compliance with the regulations, the release of batches and the declaration on the performance evaluation of the products at the most risk.

As part of the procedures for marketing a product, the Regulatory Affairs Department creates a technical dossier prior to the launch of any new product. This documentation, which includes all the items verifying that the product meets all the requirements imposed by the regulation, is then submitted for approval to one of the Regulatory Affairs managers. The Marketing Committee verifies that the approved technical dossier is available.

United States

In the United States, the level of FDA intervention is, likewise, proportional to the level of risk. Some products in the microbiology product line are exempt from registration and are under the responsibility of the manufacturers.

Medium-risk products must be 510(k) registered, which consists of demonstrating equivalence with a product already on the American market. A limited number of products deemed to be high-risk are subject to pre-market approval (PMA) and require demonstration of their diagnostic utility. Currently, only one product in bioMérieux's portfolio is registered under a PMA procedure.

In addition to 510(k) registration, a so-called *de novo* process was added by the FDA. This process is designed for new medical devices, for which the manufacturers cannot establish substantial equivalence.

Japan

In Japan, products are subject to a registration procedure which is similar to that of the United States.

China

In China, products require a registration procedure with the NMPA (National Medical Products Administration), which includes the following phases:

- the performance of quality control tests on 3 batches of reagents by the National Institute for the Control of Pharmaceutical and Biological Products or by another laboratory qualified by the NMPA. For instruments, additional tests must be carried out, such as to demonstrate their compliance with electromagnetic compatibility standards;
- a performance study carried out in China;
- an administrative review of the application;
- a technical review of the application including areas such as production, product performance, quality control tests and the report on the performance study carried out in China.

Monitoring systems and audits

Applicable laws and regulations, which may differ from one country to another, impose an additional monitoring system (post-market surveillance - PMS), which requires manufacturers and users to notify the relevant regulatory body of any incidents or risks that could have harmful effects on human health. The PMS system also provides for a series of corrective measures. This allows the Company to intervene voluntarily, correcting or recalling the products concerned.

The Company's sites are subject to audits and inspections by regulatory authorities (FDA, ANSM, etc.), bodies acting on behalf of regulatory authorities, and certifying bodies. These audits are used to check compliance with the standards ISO 9001, ISO 13485 and MDSAP, or with the applicable national regulations to which the regulatory authorities refer. Certain customers, particularly in industrial applications, can also perform audits to ensure that Group products and procedures comply with their own or existing regulatory standards, and to benefit from guaranteed quality of service.

The Company also conducts internal quality audits at sites and centrally to identify improvement opportunities for the organisation.

The ability to manage manufacturing processes, quality control and product release is guaranteed by validation and monitoring methods performed throughout the course of production.

Inspections by various regulatory authorities take place regularly on the Group's manufacturing sites. In 2018, these included:

- St. Louis and Durham (United States): in July and August 2018 by the LNE-Gmed, a notified organisation designated by certain regulatory authorities, notably the FDA, according to the standards MDSAP (Medical Device Single Audit Program), ISO 9001 version 2015 and ISO 13485 version 2016. The sites at Durham and St. Louis were certified MDSAP, ISO 9001 version 2015 and ISO 13485 version 2016;
- Lombard (United States): in August 2018 by LNE-Gmed, a notified organisation designated by certain regulatory authorities, according to the standard ISO 9001 version 2015. The Lombard site was certified ISO 9001 version 2015;
- Rio (Brazil): in July 2018 by LNE-Gmed, notified organisation designated by certain regulatory authorities, according to the standards ISO 9001 version 2015 and ISO 13485 version 2016. The Rio site was certified ISO 9001 version 2015 and ISO 13485 version 2016;
- Marcy l'Étoile (France): in February 2018, the FDA performed an inspection on the quality management system on the site, particularly that applied to the reagents of the VIDAS® range;
- Tres Cantos (Spain): in March and April 2018, the competent Spanish authority carried out two inspections on the quality management system on the site;
- Marcy, Craponne, La Balme, Grenoble, and Verniolle (France): in April 2018 by the LNE-Gmed, notified organisation designated by certain regulatory authorities, notably the FDA, according to the standards MDSAP (Medical Device Single Audit Program), ISO 9001 version 2015 and ISO 13485 version 2016. The sites Marcy, Craponne, La Balme, Grenoble, and Verniolle were certified MDSAP, ISO 9001 version 2015 and ISO 13485 version 2016;
- Combourg (France): in April 2018 by LNE-Gmed, notified organisation designated by certain regulatory authorities, according to the standard ISO 9001 version 2015. The Combourg site was certified ISO 9001 version 2015;
- Combourg (France): in December 2017 by the COFRAC (French Accreditation Committee) according to the standard ISO 17025. The temperature calibration laboratories and the testing laboratory on the Combourg site were accredited ISO 17025 in January 2018;
- Craponne (France): in December 2018 by the COFRAC (French Accreditation Committee) according to the standard ISO 17025. The laboratory on the Craponne site was accredited ISO 17025;
- Tres Cantos (Spain) and Firenze (Italy): respectively in March/April 2018 and in May 2018 by LNE-Gmed, notified organisation designated by certain regulatory authorities, notably the FDA, according to the standards ISO 9001 version 2015 and ISO 13485 version 2016. The sites at Tres Cantos and Firenze were certified ISO 9001 version 2015 and ISO 13485 version 2016;
- Salt Lake City (United States): in April 2018, certification audit of the site of BioFire Diagnostics by BSI, organisation designated by certain regulatory authorities, notably the FDA, according to the standard ISO 9001/2015;
- Salt Lake City (United States): in July and August 2018, monitoring audit by the BSI according to the standards MDSAP (Medical Device Single Audit Program), ISO 9001 version 2015 and ISO 13485 version 2016. BioFire Diagnostics was re-certified MDSAP, ISO 9001 version 2015 and ISO 13485 version 2016;
- Salt Lake City (United States): in October 2018, non-programmed audit by BSI according to the healthcare standards IVDD (2013/473/EU Annex III and IVDD 98/97/EC Annex IV 3.2);
- Shanghai (China): in February 2018, renewal of the manufacturing licence at the site at Pudong;
- Shanghai (China): in July 2018, audit by LNE-Gmed, notified organisation, of the Pudong site according to the standards ISO 9001 version 2015 and ISO 13485 version 2016. The Pudong site was certified ISO 9001 version 2015 and ISO 13485 version 2016.

1.5.2.2 Microbiological testing in industry

In the field of industrial applications, regulations applicable to manufacturers of industrial microbiological control products are still limited to their safety aspects. However, in order to fulfil the requirements of its customers, the Company complies with the standards that are applicable to them (standards according to the use of products: pharmacopoeia, standards of the type AFNOR, ISO...). The inspection rules that are binding upon the activity of customers of bioMérieux lead them to perform a large number of audits of their quality systems in order to check compliance with the requirements of GMP (Good Manufacturing Practice) applicable to the pharmaceutical industry. Recent crises in the food industry (*Listeria*, *Escherichia coli*, *Salmonella*, etc.) may lead to more stringent regulations being applied. Moreover, in the United States, for example, authorities may impose supplementary security measures as part of the fight against bioterrorism.

1.5.3 Management and monitoring of customer complaints

The Company has a procedure for the management and monitoring of customer complaints. The procedure serves to handle complaints while providing the Company with the information it requires to continuously improve its products.

1.5.3.1 Process of handling complaints

Complaints are processed on three levels:

- first level: most complaints are handled locally, by subsidiaries and distributors. Their closeness to customers allows them to deal with requests quickly;
- second level: complaints can be transferred to Global Customer Service (GCS) where they are handled by a specialised team that investigates to give a response to customers;
- third level: for complaints requiring a series of investigations involving the production sites or the R&D teams. An analysis is performed as to the causes of these complaints that could not be identified by levels 1 and 2. The Company can then resolve the customer complaint and implement corrective and preventive actions to avoid similar complaints in the future.

1.5.3.2 Quality management in the regions

Each bioMérieux entity has its own Quality Department which in turn reports to the Global Quality Department. The size and organisational structure of these units varies depending on quality standards and local regulations.

1.5.3.3 Global quality system and compliance

The Global Quality System and Regulatory Compliance Department contributes to defining the strategy aiming to proactively improve the processes relative to the quality management system in place on bioMérieux's various sites and for all of the support functions. It is also responsible for the post-market surveillance. Its duties include the following:

- to improve the performance of the systems, tools and methods dedicated to quality;
- to set up indicators to improve the processes and procedures of the quality system, and to measure their appropriateness and efficiency;
- ensure compliance with the requirements of customers and with regulatory requirements concerning the processes used in the design, production, distribution, installation and maintenance of bioMérieux's products;
- to implement all actions concerning product correction or withdrawal, including the instructions to be followed by the teams on;
- the ground; to manage incident reports in France and the United States and oversee the reports filed by other bioMérieux subsidiaries.

This department uses the resources necessary to apply or enforce, by all employees of the Company, the rules necessary to the achievement of quality objectives.

Furthermore, in accordance with the quality management system, the Company performs internal quality audits on its sites, subsidiaries and global support functions. These audits are conducted by the Company's internal quality auditors based on a program drawn up each year.

The Global Quality Management System Manual describes the quality management procedures that govern the Company's activities, from the design of products to their delivery and installation, including after-sales service.

In addition to this manual, each subsidiary, production site and R&D site has additional local documentation describing provisions that are specific to its activities.

These manuals are used as permanent reference documents for the implementation, management and improvement of the Quality Management System, as well as for relations between bioMérieux and its customers.

1.6 Research & development, patents and licenses

1.6.1 Research & development

1.6.1.1 Investment policy

The Group's R&D expenses, which amounted to €327 million or 13.5% of sales in 2018 (compared with €304 million in 2017 and €272 million in 2016), focus on technologies that are developed internally or in partnership with other companies or academic research institutes, or under licenses acquired by the Company.

R&D activities have two key objectives: to enhance laboratory efficiency and to improve the medical value of diagnostic tests.

R&D focuses chiefly on developing platforms and expanding product ranges in the fields of infectious diseases and certain cardiovascular diseases.

1.6.1.2 Corporate organisation

R&D is organised as follows:

- innovation activities are prioritised according to strategic policies and are intended to ensure continuity with the development stages, as well as to focus each R&D site on its area of expertise;
- the research activities in matters of biomarkers are carried out by the MD3 (Medical Diagnostic Discovery Department). This department's task is to identify and validate biomarkers enabling the development of diagnostic tests with high medical value;
- development activities for reagents, instruments and associated software, and support to the lines that are marketed, are managed by each of the Clinical and Industry Application units; Furthermore, activities related to the collection, processing and interpretation of data (Data Analytics) are carried out within each Unit.

The Clinical and Industrial Application units are responsible for prioritising, validating and monitoring projects (approving schedules, human resources requirements, cost and risk). Major projects are periodically reviewed by the Executive Committee.

The Portfolio and Strategic Planning Department ensures that the project portfolio is aligned with the Company's overall strategy and assists the different departments in selecting R&D projects.

The R&D activities rely on nearly 1,700 employees and involve 19 R&D centres.

The Group's policy is to locate R&D activity in the area where the related product line is (or will be) manufactured whenever this is possible. The following table breaks down the Group's R&D activities at December 31, 2018, by geographical area:

Site	Reagents	Systems	Informatics
St. Louis (Missouri, United States)	Automated microbiology (VITEK®)	Microbiology (VITEK®, BACT/ALERT®, VITEK® MS, BACT/ALERT® VIRTUO™)	Bio-informatics Microbiology
Durham (North Carolina, United-States)	Microbiology (blood culture) BACT/ALERT®		
Salt Lake City (Utah, United States) – site of BioFire Diagnostics	Molecular biology (BIOFIRE® FILMARRAY®)	Molecular biology (BIOFIRE® FILMARRAY®)	
Salt Lake City (Utah, United States) – site of BioFire Defense	Molecular biology for the US Department of Defense	Molecular biology for the US Department of Defense and industrial and clinical applications	
Marcy l'Étoile (France)	Immunoassays (VIDAS®) Immunoassays using rapid biomarker tests	New technologies	
Craponne, La Balme (France)	Microbiology (culture media, ETEST®, TEMPO®)	New technologies, laboratory automation	Bio-informatics Microbiology
Grenoble, Verniolle (France)	Molecular biology (EASYMAG®/ EMAG® BIOFIRE® FILMARRAY®, ARGENE®, CEERAMTOOLS®, GENE-UP®) Molecular virology for food applications	Molecular biology	Bio-informatics
Combourg, Ker Lann (France)	Microbiology (culture media); cytometry reagents	Industrial applications: laboratory automation/sample preparation Counting Flow cytometry	
Florence (Italy)		Immunoassays (VIDAS®) Industrial microbiology (TEMPO®) Molecular biology (EASYMAG®/ EMAG®)	
Rio de Janeiro (Brazil)	Centre of excellence for tropical diseases		
Shanghai (China)	Rapid immunoassay tests, tests for the detection of cancers		
Hyderabad (India)	Molecular biology tests		
Bernried (Germany) – site of Hyglos	Detection of endotoxins in pharmaceutical products		
Sint-Martens-Latem (Belgium) – site of Applied Maths			Bio-informatics
San Diego (California, United States) – site of Astute Medical[1]	Identification and validation of biomarkers for immunoassays		
Suzhou (China) – site of Hybiome [2]	Immunoassay tests	Platforms AE 120, AE 180, AE 240	

Innovation is a major priority for the Company and every year, bioMérieux's Patent Awards recognise the Company's inventors who have filed high-potential patents.

(1) Astute Medical Inc. was acquired by bioMérieux on April 4, 2018.
(2) bioMérieux acquired a majority in Hybiome on November 9, 2018.

1.6.1.3 Clinical R&D

Strategy

Innovation has always been a prime focus for bioMérieux. Its R&D programmes have a two-fold objective:

- enhance the medical value of diagnostics by constantly reducing the time required to obtain results, identifying new disease-causing organisms, finalising new biomarkers and providing information tailored to the needs of medical professionals;
- improve the efficiency and productivity of laboratories and healthcare facilities, thereby optimising overall healthcare costs.

The research & development teams working in clinical applications focus on the development of new platforms and test menus.

Projects

The main research and development projects in clinical applications cover:

- the improvement of the functionalities of its existing instruments;
- the enhancement of the test menus available on its instruments;
- the development of new generations of instruments;
- the updating and development of embedded or independent software.

Agreements

Part of the Company's research activity, in particular for the development of new technologies, is based on partnership arrangements with leading public research institutes (CNRS, INSERM, Institut Pasteur, NIH "National Institute of Health", United States), universities, hospital research centres, laboratories, and biotechnology firms.

The agreements signed by the Company provide for the sharing of intellectual property rights as well as the payment of royalties when the products developed are actually brought to market.

The most significant existing agreements on clinical applications are:

- the agreement signed with Lumed, an innovative startup in the IT and health field, to help hospitals control their antibiotic use and fight against microbial resistance. This collaboration illustrates bioMérieux's selective approach to partnerships to develop its own business activity Data Analytics;
- the agreement signed with Qvella to investigate the potential of its technology to process samples directly;
- the agreement with Illumina to co-develop a next-generation sequencing (NGS) solution for the epidemiological monitoring of bacterial infections;
- the global agreement signed with Banyan Biomarkers for the development and marketing of markers for traumatic brain lesions on the VIDAS® platform;
- the extension of the collaboration with the CNES on Aquapad, an innovative device for performing microbiological diagnostics on the potable water of a space crew;
- the contract awarded to BioFire Defense by the US Department of Defense (DoD) for the technological development of the Next Generation Diagnostics System (NGDS).

The Company has also established joint research laboratories with French and foreign academic partners:

- two laboratories have been set up jointly with Hospices Civils de Lyon in the fields of cancerology and infectious diseases. This collaboration was extended in May 2016 for a period of five years and broadened to the Université Claude Bernard Lyon 1;
- as well as with a Chinese research laboratory specialised in biomarker research in cancerology.

As part of the Institut Mérieux Group, the Company has also carried out long-term research into infectious diseases jointly with Institut Pasteur. This project was launched in 2009.

bioMérieux is a partner of BIOASTER in the field of diagnostics and technical platforms. This technological research institute, certified by the French government in June 2011, focuses on infectious diseases and became operational in 2013. In this regard:

- bioMérieux participates in the REALISM research program (REAnimation Low Immune Status Markers) in partnership with the Ecole Supérieure de Physique et de Chimie Industrielle de la ville de Paris (ESPCI), GSK, les Hospices Civils de Lyon (HCL) and Sanofi. Carried out within BIOASTER and the joint HCL-bioMérieux research laboratory, this project is intended to identify and validate new biomarkers to improve the treatment of patients with a high risk of sepsis;
- the CODIRA project (Optical characterisation for the rapid diagnosis of bacterial infections) involving BIOASTER, bioMérieux, CEA-Leti, Horiba Scientific and les Hôpitaux Universitaires de Genève is continuing. In keeping with the scientific advances achieved since 2013, the objective of the CODIRA2 project is the effective development of prototypes facilitating bacterial identification and the determination of phenotypes for antimicrobial resistance under clinical test conditions.

Lastly, bioMérieux participates in the AMR (Antimicrobial Resistance) challenge, a new initiative by the American CDC (Centers for Disease Control and Prevention), which aims to bring together heads of government, health sectors and industry in a concentrated effort for 1 year, with the aim of accelerating the fight against the threat to public health posed by microbial resistance. In 2018, about 75% of bioMérieux's R&D budget dedicated to clinical applications was devoted to perfecting new solutions participating in the fight against AMR.

1.6.1.4 Industrial R&D

Strategy

The Industrial Applications unit has its own R&D teams.

This unit develops and manufactures the broadest range of industrial microbiological control solutions. It provides solutions for sample preparation, identification and microorganism typing.

The unit provides solutions for:

- the food industry;
- veterinary diagnostic laboratories;
- the biopharmaceutical industry;
- the cosmetics industry;
- blood banks.

Projects

The main research and development projects in the industrial field cover:

- the improvement of the functionalities of its existing instruments;
- the enhancement of the test menus available on its instruments;
- the development of new generations of instruments;
- the updating and development of embedded or independent software.

1.6.2 Intellectual property, licenses, usage rights and other intangible assets

1.6.2.1 Intellectual property

The Company protects patents, copyrights and trademarks on its products and processes and actively defends its industrial property rights throughout the world.

Proprietary patents

Diagnostic systems, which are underpinned by a combination of instrumentation, IT and biology, are heavily reliant on the protection of intellectual property; the players in the sector therefore seek to obtain strong positions in matters of patents.

Manufacturing know-how installed bases of closed systems and the number of menu parameters developed during the patent protection period generally mean that firms in this sector are less exposed when patents expire than pharmaceutical companies that have to deal with the arrival of generic drugs on the market.

Conversely, high medical value tests may be more sensitive to the expiration of their patent protection.

The Company continues to deploy its intellectual property policy. It actively protects its research findings *via* patents (around 30 new patent applications per year) and monitors its competitors for any infringements of its patents. At December 31, 2018, the Group owned 543 patent families, the majority of which are in force in Europe, the United States, and China. At the same date, the Group held 380 patents granted in the United States and 286 patents granted in Europe.

Patent policy consists of filing a priority application (generally in France or in the United States) and applying for an extension within one year under the patent cooperation treaty (PCT) which has a single procedure for filing a patent in the 152 countries that are party to the treaty (at December 31, 2018). The final choice of countries for patent extension is made at the end of the PCT procedure, *i.e.*, about 30 months after the initial filing. As a general rule, patents are extended in countries where the market is largest, notably the United States, Europe (especially France Germany, United Kingdom, Italy and Spain), China and Japan.

Licenses granted by third parties

In the context of its business, the Company benefits from licences granted by third parties to develop or market reagents or technologies (see section 1.6.2.2 and section 2.5.5).

Licenses granted by the Company

The Company has granted the following licenses to third parties:

- patents covering mutations to nucleic acids (Factor V) that are decisive for identifying the risk of thrombosis. The patents will expire in 2020 in the United States and have expired in 2015 outside the United States;
- patents covering sequences or techniques for detection of certain viruses such as EBV [(1)] for which the basic patents expired between 2013 and 2016. Three of the five patent families are currently in force and the other two have expired in all countries except the United States;
- other patents, notably those covering the NephroCheck® test system (namely what is necessary for tests, the control solutions, the necessary calibration and the Astute140 measurement appliance) enabling diagnosis and prognosis of acute kidney injury.

For all technologies controlled by bioMérieux *via* exclusive third-party licenses with sublicensing rights, a portion of the revenue from sublicensing agreements is paid over to the patent owner.

In 2018, the Company set up a policy aiming to commercially develop the biological raw materials that it owns. Thus, the Company granted licences on the use of cell lines (hybridoma) for the production of antibodies that might be able to be used in *in vitro* diagnostic solutions or that might be offered for sale as biological raw materials.

Trademarks

The Company owns the "bioMérieux" institutional trademark, which is registered in most countries both as a word trademark and as a word and device trademark. It should be noted that the use of the name "Mérieux" is managed by the Institut Mérieux, for all the companies under its control. Accordingly, the Company obtained the right to use the name bioMérieux within the scope of its activities from the Institut Mérieux.

(1) Epstein-Barr virus, responsible for infectious mononucleosis.

The Company also has legal title to the trademarks of products (instruments, reagents and/or software) and services that it markets.

The new brand registrations are made as basic registrations in France or the United States, then the protection is extended:

- by registering brands with the European Union Intellectual Property Office, in all countries of the European Union;
- by international registration with the World Intellectual Property Organisation; and
- registration of national trademarks.

The portfolio includes 250 trademark families and these have been registered in most countries.

Domain names

The Company owns more than 400 recorded domain names, including those consisting of the name "bioMérieux" and over 120 different extensions.

1.6.2.2 Degree of dependency

Dependence on patents and licenses

The Company holds a number of licenses which are listed below, the loss of which could have a significant impact on the Company's sales:

- PCT license granted by Thermo Fisher along with the supply of raw materials, to develop and sell VIDAS® tests for the screening of procalcitonin as a marker of severe bacterial infections (renewed in October 2012 for the duration of all B•R•A•H•M•S PCT patents);
- licence NT-proBNP, granted by Roche Diagnostics, notably to develop and sell VIDAS® tests for detection of NT-proBNP, a marker for congestive heart failure and acute coronary syndrome (patents on raw materials expiring in 2024);
- licence granted by Spectral, notably to develop and market the test VIDAS® Troponine I Ultra (patents expiring in 2018);
- licence to develop molecular beacons granted to PHRI Properties, Inc. notably to develop and sell products of the ADIAFOOD® range (patents expiring no later than 2024);
- licences concerning PCR technology granted by University Utah Research Foundation to develop and sell products of the BIOFIRE® FILMARRAY® range (patents expiring no later than 2025);
- licenses concerning technologies implemented as part of tests sold exclusively to the US government (BioFire Defense).

The Company also receives income from its patent portfolio (see section 1.6.2.1).

1.7 Property, plant and equipment

1.7.1 Land and buildings

Historically based in the Lyon region of France, the Company has expanded its geographical presence over the years by acquiring foreign companies, particularly in the United States, and by forming subsidiaries of its own.

The Company normally fully owns its production, logistics, and R&D sites (including in particular Marcy l'Étoile, Craponne, La Balme, Grenoble, Combourg, St. Louis, Durham, Salt Lake City, Madrid, Florence, Jacarepagua/Rio de Janeiro and Pudong/Shanghai).

1.7.2 Production

Manufacturing processes play a critical role in the *in vitro* diagnostics industry due to constraints related to the nature of the products. At end-2018, the Group operated 18 manufacturing sites organised by product line.

Manufacturing activities are organised by the Group based on the principle of "one site-one product line" (see section 2.3.3.1), partly due to the technical nature of products, which requires highly specific expertise, specialised teams and on-hand R&D teams, and partly due to productivity gains that may be generated through economies of scale achieved by concentrating production. Petri dishes are the only exception to this principle due to their reduced shelf-life and barriers to imports of animal-based products in certain countries. They must be manufactured close to customers at the facilities located in Brisbane (Australia), Rio de Janeiro (Brazil), Lombard (Illinois, United States), Madrid (Spain), Shanghai/Pudong (China) and Combourg (France), as well as the main production site in Craponne (France).

The Company endeavours to implement rigorous quality control at the production stage (see section 1.5.1).

The main production sites are described below.

1.7.2.1 Europe, Middle East, Africa

France

Site at Marcy l'Étoile including Campus de l'Etoile

Located near Lyon, the Marcy l'Étoile site has housed the Group's headquarters since the beginning. The property, fully owned by the Company (and acquired through property leasing for the Campus de l'Etoile), covers a total area of 187,000 sq.m. (including 53,000 sq.m. of built usable floor space) and accommodates reagent manufacturing sites (VIDAS® reagents, immunoassays, clinical biochemistry) and R&D teams. This site groups the General Management, the global and support functions, a training centre, production services and R&D.

• Site at Craponne

Located near Lyon, the Craponne site covers a total area of 80,000 sq.m., owned by the Company (including 26,500 sq.m. of built usable floor space). It currently houses manufacturing sites for culture media, including the CHROMID® and 3P™ product lines (Petri dishes, tubes and bottles, dehydrated media), sales administration, the French Sales Department, certain support and central functions and an R&D centre.

A project to expand and restructure this site is in progress.

• Site at La Balme

This site is located between Grenoble and Lyon It covers a surface area of 119,000 sq.m. including 19,000 sq.m. in built usable floor space fully owned by the Company. the site groups R&D in microbiology, instrumentation and software, and the manufacture of the reagent ranges API®, ATB™, TEMPO®, ETEST®.

• Site at Grenoble

Some of the Group's research and manufacturing operations in the molecular biology field (excluding instrument production) are located at this fully owned site. The buildings, constructed on a plot of land of more than 31,500 sq.m, located in the Grenoble Polygone Scientifique research district opposite the headquarters of the French Atomic Energy Commission ("CEA"), consist of 9,300 sq.m of usable floor space.

• Site at Combourg

Located in Brittany, the Combourg site covers a total area of 43,000 sq.m (including 12,000 sq.m of built usable floor space). The site specialises in food applications and includes reagent manufacturing sites (culture media and cytometry reagents), control laboratories, equipment manufacturing (laboratory automation systems and cytometry), the culture media R&D laboratory, the supply chain and support functions (IS, reagent hotline).

• Site at Verniolle

Located in Ariège in the Midi-Pyrenees region, the Verniolle site covers a total area of 9,500 sq.m and includes 1,800 sq.m of usable floor space, of which roughly 1,000 sq.m is dedicated to the production of virological molecular diagnostic reagents in the ARGENE® line, R&D and the related manufacturing activities.

Western Europe

• Site at Florence (Italy)

This site, fully owned, groups all of the activities of bioMérieux in Italy, including the marketing of bioMérieux products on Italian territory and the manufacture and/or development of VIDAS® instruments (immunoassays), NUCLISENS® EMAG® (molecular biology), TEMPO® and GENE-UP® for all of the subsidiaries of bioMérieux. This makes the Florence site the Group's second largest instrumentation centre. It covers an area of 10,000 sq.m, including 7,000 sq.m of built usable floor space on several levels.

• Site at Madrid (Spain)

This fully-owned site is intended for the manufacture of products for microbiology (petri dishes of the CHROMID®) range.

1.7.2.2 America

North America

• Site at Durham

The Durham facility is located in North Carolina (United States) on 579,000 sq.m of land fully owned by the Company, with 21,000 sq.m of built usable floor space. The Group also leases premises nearby with nearly 10,000 sq.m of floor space. Currently the registered office of bioMérieux Inc., the site groups the activities of R&D, production of reagents for microbiology (BACT/ALERT®) customer services and support functions.

• Site at St. Louis

The St. Louis site, fully owned, has an area of 141,000 sq.m, including 66,000 sq.m of built usable floor space since the acquisition, in 2018, of a building located at the edge of the site. The site's activity is currently focused on R&D and the manufacture of microbiology instruments (VITEK® and BACT/ALERT® ranges) and reagents (VITEK® cards).

• Site at Lombard

Near Chicago (Illinois), this site groups the production and sale activities for culture media (3P™ ranges) for industry in the United States; the Group leases 5,850 sq.m there.

• Sites at Salt Lake City

- BioFire Diagnostics has several buildings on the campus of the University of Utah (Utah Research Park), mainly fully owned. Of a total area of 38,000 sq.m, these sites are dedicated to R&D and the production of the BIOFIRE® FILMARRAY® system (instruments and reagents) and to the administrative and commercial functions of BioFire Diagnostics. In addition, BioFire acquired further plots of land during 2018 for potential expansion projects.
- To meet the expectations of BioFire's biodefense customers in the United States, BioFire Defense was created. All of the personnel, programmes and equipment for the Defence activity were physically transferred to a secure and separate site located in Salt Lake City.

Latin America

• Site at Jacarepagua (Rio) in Brazil

This site covers an area of 42,000 sq.m including 5,400 sq.m of built usable floor space. It is fully owned and houses the production activities for reagents for ready-to-use media for microbiology (Petri dishes of the CHROMID® range) and industrial, sales and distribution activities, as well as R&D. The site also houses other company functions (marketing, administrative, etc.).

1.7.2.3 Asia-Pacific

China

- **Site of bioMérieux (Shanghai) Biotech Co. Ltd**

The site at Pudong (Shanghai) is dedicated to the manufacture of rapid tests and culture media (Petri dishes of the CHROMID® range). It extends over 20,000 sq.m and includes 14,300 sq.m of buildings that group production, commercial and R&D functions and a training centre. bioMérieux Shanghai Co. Ltd is also located on this site.

- **Site at Hybiome (Suzhou)**

Resulting from bioMérieux's equity investment in Suzhou Hybiome Biomedical Engineering Co. Ltd, this site, of an area of about 9,000 sq.m, is specialised in R&D, the production of instruments and immunoassay tests.

Australia

- The site in **Brisbane** represents an area of 2,300 sq.m of premises that are leased for the production and sale of culture media (Petri dishes of the CHROMID® range). This site was sold in December 2018.
- The site of **BTF in Sydney**, which represents an area of 1,400 sq.m of leased premises, hosts production and sale activities covering microbiological testing reagents (BIOBALL®, EASYSTAIN®, ColorSeed, EASYSEED®).

India

- **Site at Hyderabad**

Resulting from the equity investment of bioMérieux in RAS Lifesciences Pyt. Ltd, this site, of an area of about 3,000 sq.m, is specialised in the production of molecular biology tests.

1.7.3 Supply chain

Given the dispersion and specialisation of manufacturing facilities, as well as the large number of products and their specific nature (reagents, instruments and spare parts), the logistics/supply chain team plays an essential role within the Group.

The logistics/supply chain function groups the following functions:

- handling of customer orders by the Sales Department;
- forecast management and demand planning;
- supply and storage of materials and components necessary for production;
- storage, transport and distribution of finished products.

To optimise the conditions of supply to customers and inventory management, product distribution is handled by:

- global platforms (in Europe and the United States) where finished products are stored and from which they are shipped to subsidiaries and distributors;
- local platforms – the management of which may be subcontracted to external operators – which process orders and shipments to customers of subsidiaries.

Among the global platforms, the IDC logistics centre at Saint-Vulbas in France is the largest. It handles the distribution of the instruments and reagents produced in Europe and in the United States to distributors and certain subsidiaries. It is fully owned and is located on land of 71,000 sq.m containing tall buildings with a total area of 9,500 sq.m.

In the US, management of the Durham (North Carolina) and Louisville (Missouri) platforms is subcontracted to a major industry player.

The logistics division manages the cold chain through the various stages of the distribution process and ensures product traceability (in particular through the use of barcodes on packaging).

Each subsidiary is responsible for managing its inventory levels of reagents and instruments, under policy guidelines set by the Group. It is supported by an expertise centre which optimises the coordination of flows and the balance between customer service and inventory levels.

After a phase involving the profound transformation of the organisation of its logistics, and a notable improvement in its performance, bioMérieux is now concentrating on the creation of more added value for its customers *via* personalised services.

2

RISK FACTORS

The Company operates in a rapidly changing environment that exposes it to risks, some of which may be beyond its control. A number of important factors could cause the Company's actual results to differ materially from those indicated in its forward-looking statements, in particular as regards the achievement of its strategic aims or its growth and profitability targets. The risks and uncertainties presented below could have a material adverse impact on its business, outlook, financial position, results, ability to meet its objectives, or even on its image and reputation. They are not the only ones to which the Company is exposed. Other risks and uncertainties of which the Company is not aware at this time, which it currently considers not material, or which concern more generally all economic players, could also in future adversely affect its business, outlook, financial position or ability to meet its objectives.

Methodology

To identify, assess and manage the risks it may face, the Company has created a risk map. This map first makes it possible to identify the main potential risks to the Company and to assess the probability of their occurrence as well as their financial, legal, human and image impact.

Secondly, it allows the Company to identify and assess the efficiency of the actions implemented to control these risks. This methodology is gradually rolled out within the operational entities and support functions, so as to manage the risks at a more detailed level.

The risk map is reviewed annually. Work sessions and workshops are organised during the year so as to review all gross risks, monitor the progress of action plans put in place, and assess the efficiency of risk management initiatives with a view to identifying and evaluating new risks. This gives the Company an image of its risk environment and allows it to define the action plans and internal audit program for the coming year, where appropriate.

This methodology is applied to describe and assess the main risks associated with the Company's business, and where applicable, those created by its business relations, its products or services, as required in the statement of non-financial performance (see Chapter 3) for each of the information categories (social, environmental, respect of human rights, combating corruption and combatting tax evasion).

To the best of the Company's knowledge, at the time of the preparation of this Registration Document and based on the results of the assessment of the risks during the financial year, the Company considers the risks below as the most significant, and communicates them by category according to the significance of the potential impacts.

TABLE SUMMARISING MAIN RISKS

Risks linked to bioMérieux's industry		Emergence of rival technologies
		Competition
		Prices and reimbursements
		Customer consolidation and increasing pressure on prices
		Economic environment
Risks linked to bioMérieux's strategy		Failure of R&D projects and new products
		Business development strategy
Internal risks linked to the organisation and operation of bioMérieux		Failure of the information system
	NFPS	Human resource management
	NFPS	Location of industrial facilities policy
External risks linked to the organisation and operation of bioMérieux	NFPS	Dependence on certain suppliers
	NFPS	International operations
		Dependence on partners
Regulatory and legal risks	NFPS	Regulatory environment applicable to products
	NFPS	Good business practices
	NFPS	Managing the protection of personal data
		Fraud
		Intellectual property
	NFPS	Environmental risks
Claims and litigation and liability		Claims and litigation
		Liability linked to products
Market risks and financial risks		Foreign exchange
		Rate
		Counterparty
		Listed equity investments
		Pensions
		Credit
		Debt
		Liquidity
		Share price volatility and liquidity

2.1 Risks linked to bioMérieux's industry

There are a number of material risks related to bioMérieux's industry. The Company is exposed to the potential emergence of more efficient disruptive technologies, increased competition, as well as to decisions relating to the reimbursement of *in vitro* diagnostics test and/or reforms in healthcare systems, and a growing consolidation of its customer base, all this in a volatile economic environment.

The risks detailed below could affect the achievement of the Company's objectives and have a negative impact on its results.

2.1.1 Emergence of rival technologies

The Company may have to face the emergence of new diagnostic techniques that may render some of its products entirely or partially obsolete.

In vitro diagnostics is a highly innovative sector in which the emergence of new technologies is a source of risks and opportunities. The Company's technologies include some that are currently complementary, but which could one day compete with each other. Certain technologies currently used by the Company may also be threatened by other more powerful technologies. Other technologies, such as spectroscopic techniques or microscopic imaging techniques, or a combination of both, could prove to be effective. DNA and bacterial and viral RNA sequencing give detailed information on the identification, resistance and virulence of strains and thereby constitute a potentially disruptive technology. Certain technological

advances could pave the way for the identification of microorganisms and the testing of their antimicrobial resistance with few or no prior culture samples. Allowing for very rapid test results, these new diagnostic solutions could compete with the Company's current offering. The scale, complexity, and variety of data generated by the Company's current or future instruments or in the field of diagnostics more generally are constantly growing. Effective data extraction and testing techniques offering high value-added medical solutions can represent a threat for the Company's hardware and software solutions. The emergence of digital technology could result in the development of new diagnostic approaches used to complement but also to replace traditional solutions. Generally, new spectroscopic, biochemical or molecular biology technologies of which the Company currently knows nothing could appear.

Some of these technical innovations will entail marketing instruments that cost more than those resulting from traditional techniques. These new technologies may also lead to a decrease in, or discontinuation of, the use of reagents. Increased use of mass spectrometry, for example, might continue to lead to a drop in recurring sales, since sales of consumables and associated services would only be able to partially replace sales of reagents.

In addition, the Company may not be able to accurately assess the technological, medical and commercial opportunities that these new technologies may offer, and could be outdistanced by the competition.

Risk Management: The Company has various channels dedicated to technological vigilance in order to detect the emergence of new technologies and to anticipate their potential and the speed of their adoption by laboratories. It has an Innovation Department whose role is to identify new technologies and assess the most relevant from a technical, strategic, medical and commercial point of view. Furthermore, with the emergence of technologies associated with artificial intelligence and Big Data, the Company's structure enables it to study and offer innovative solutions to customers and patients. It has set up a "Data Analytics" Department, the aim of which is to study and provide customers and patients with innovative solutions based on the collection, processing and interpretation of data. Where applicable, it completes its portfolio of activities through targeted acquisitions (*e.g.* 2015 acquisition of Applied Maths).

2.1.2 Competition

The Company may be unable to compete effectively in its market.

According to its estimates, the Company ranks 6th in terms of sales on the global *in vitro* diagnostic market. This market is rapidly evolving and competition is intensifying among the different players, particularly in certain markets, such as POCT, where the Company does not yet have a large market share.

The Company's competitors include major international companies, which are bigger and more experienced than the Company, and have larger financial resources and market shares, enabling them to invest more heavily in R&D and marketing and/or to set more competitive prices as a result of greater economies of scale. For a number of years now, more specialised competitors have also been emerging on the Company's strategic markets (see section 1.2.1.5). Finally, new competitors from emerging markets (especially China and India) are expanding and may offer products that are much cheaper than those of the Group.

As a result, the Company cannot be certain that its products will:

- be able to compete over the long term with products sold by competitors;
- allow it to gain or maintain significant market share and benefit from the same product reputation as its better-positioned competitors;
- respond quickly enough to the emergence of new technologies and to scientific advances on which the Company is dependent (see section 2.1.1).

Part of the Company's business is conducted on markets where it is awarded tenders, some of which are significant and which might not be maintained or renewed. This would affect its business and development.

Moreover, the Company's business depends on certain products whose growth could be impacted by the development of rival offers. The BIOFIRE® FILMARRAY® respiratory panel (see section 1.2.3.3) in particular is bioMérieux's primary parameter and is undergoing rapid growth. As expected, competitor companies have recently obtained their authorisation to bring tests to the American market permitting a syndromic approach. At the same time, the Company is working to increase the number of syndromic tests specific to various pathologies, and to continue to improve this system's analysis processing time, which provides strong medical value.

Risk management: The Company has created various channels dedicated to monitoring technology and competition, and an Innovation Department. Its Clinical unit, with the assistance of the Chief Medical Officer, develops clinical trials to extend the scope of its tests to other applications and (develops) medico-economic studies in order to demonstrate the medical value of its products. Finally, it has a Business Development Department that is in contact with companies in the sector that are likely to provide access to innovative technologies, thus enabling the Company to enhance its product line, particularly through licence agreements.

2.1.3 Prices and reimbursements

Uncertainty over reimbursements of *in vitro* diagnostic analyses and over possible health insurance reforms could affect the Company's customers, and indirectly, the Company itself.

The commercial success of the Company's products notably depends on the extent to which private or public health insurance bodies reimburse the cost of analyses performed by the Company's customers.

A decision by a public or a private insurer to limit or stop the reimbursement of certain diagnostic analyses could have a significant impact on the demand for the Company's products and/or on the price charged by the Company to its customers. Likewise, in some countries, public authorities determine the price of a diagnostic analysis, and have a direct influence on the ability of customers to pay for products.

Health insurance bodies may not sufficiently value the benefits associated with certain diagnostics that use the Company's products, including products with high medical value, and define inadequate reimbursement thresholds. As an example, in 2018, Palmetto, a Medicare Administrative Contractor, decided to reduce reimbursements of BIOFIRE® FILMARRAY® respiratory and gastrointestinal panels for outpatients over 65 years old.

In the United States, the reform of the health care system (Patient Protection and Affordable Care Act) has had significant impacts on the US healthcare market: this reform provides coverage to a larger portion of the population; however, healthcare reimbursements are trending down. These factors are leading the healthcare system to identify areas where it can improve efficiency and reduce costs. The impact on the Company is limited, representing both opportunities for sales of more automated systems and the risk of downward pressure on prices. The Company's clinical products on sale in the United States are liable for the medical device excise tax. This tax was suspended for 2018 and 2019.

In 2017, the US law dubbed PAMA (Protecting Access to Medicare Act) was passed providing for a 10% to 15% decrease in reimbursements per year until 2023 for outpatients for most diagnoses. The direct impact on bioMérieux should be limited since most of the Company's products are not used in outpatient care. Nevertheless, the Company is expecting an indirect impact due to price pressure on customer margins.

Risk Management: the Company endeavours to promote the medico-economic value of its solutions through its Regulatory Affairs Department. This department files and defends requests for new product approval. The Medical Affairs Department is also key, assessing the medical value of the Company's products by conducting medico-economic studies and obtaining the related reimbursements.

2.1.4 Customer consolidation and increasing pressure on prices

The consolidation of customers continues apace, particularly in Europe and the United States, for *in vitro* diagnostic products, which has led to the creation of technical platforms that process large test volumes daily. In parallel, this trend towards consolidation has also triggered a wave of decentralisation in the US, where tests are being conducted ever closer to customers (Point Of Care) in doctors' surgeries and pharmacies. In certain fields (particularly immunoassays), the Company's products and services could fail to meet market divisions.

This consolidation trend also allows customers to exert greater influence on product prices. In the United States in particular, hospitals' central purchasing offices pursue an assertive purchase price reduction policy. Pressure on prices is increased by the entry of new market players seeking to rapidly acquire market share as well as by public health policies, which generally tend to restrict reimbursement thresholds for healthcare products and services provided by the Group's customers (see section 2.1.3).

Heightened pressure on prices could prevent the Company from meeting its financial objectives for innovative and high medical value solutions.

Lower sales prices could have repercussions on the Company's sales and profitability and could therefore have a negative impact on the Company's business, financial position or earnings.

Risk management: The Company has established, particularly in North America and within the Industrial unit, a specific organisational system that enables it to efficiently manage its key strategic customers. A similar strategy is being deployed in the EMEA region.

The Company pays particular attention to adjusting its prices based on the situation in the markets in which it operates. In addition, it has a diverse range of products, technologies and customers, along with a large geographical footprint. Its R&D efforts should enable it to regularly launch new products in order to meet changing market needs. bioMérieux's range of services could be a means of staving off increased pressure on prices.

2.1.5 Economic environment

The Company's business may be affected by a deterioration in the global economic environment and/or more moderate growth than expected in the *in vitro* diagnostic market.

For example, the volatility present in worldwide geopolitical and economic environments and in the currencies of many countries remains significant. Protectionist measures or regulatory barriers may be introduced in these countries, particularly in order to promote the emergence of local competitors.

The Company may be unable to devise an appropriate sales policy. This would translate into slower than planned growth in these countries, or the recognition of negative foreign currency transaction impacts on its sales reported in euros, which would also affect its operating income before non-recurring items, as an often limited portion of the Group's expenses are paid in the billing currency of its products and services.

Risk Management: The Company has a diversified geographical base. It has deployed a regional organisation that enables it to make decisions close to operating centres, in compliance with the Group's recommendations, and to adapt its management to the economic environment of every country in which it does business.

2.2 Risks linked to bioMérieux's strategy

Risks linked to bioMérieux's strategy were identified and assessed as material following the completion of a risk assessment. These risks, which could affect the Company's financial position, are related to the potential failure of R&D projects for technical, regulatory, or commercial reasons, as well as to external development initiatives of the Company, particularly *via* partnerships and acquisitions that would not achieve the objectives set.

2.2.1 Failure of R&D projects and new products

The Company may not collect the return on its investments in R&D in the event of technical or industrial failure, if the products developed do not receive the requisite regulatory clearance or if they do not meet with the expected commercial success.

The Company invests significant amounts in product R&D (systems, instruments, reagents, software, services, etc.) in order to remain competitive. At the start of an R&D project, it is not certain that the product under development will be marketed or that it will be launched at the initially-planned date.

As an example:

- R&D teams may fail to develop the new products needed to meet the Company's strategic objectives, of either capturing new markets or preserving existing markets. In particular, as new diagnostic systems are extremely complex to develop, requiring the joint development of platforms, reagents and software, the Company may fail to develop the solution needed and have to abandon or postpone certain projects;
- the joint development with other technical partners of products considered key growth drivers for the Company could prove more difficult than expected, either for the reasons set out above, or owing to possible disagreement with partners (see section 2.4.3), and the corresponding product launches could be delayed or abandoned;
- technical, industrial or regulatory difficulties or difficulties concerning intellectual property could delay the commercial launch of a menu of reagents and affect the commercial success of the associated systems;
- the Company may not be able to obtain the regulatory clearance it requires to market and sell its new products.

Also, it is possible that bioMérieux will not invest in the most promising technology or in biomarkers that will rise to prominence, and consequently that it will be unable to launch new products or build a strong product portfolio to meet customer needs.

Furthermore, the Company may not succeed in demonstrating the medical and economic value of new diagnosis solutions, which is a key factor in the commercial success of its solutions.

As an example, the Company's competitors may develop products that are more effective or otherwise better adapted to demand. In particular, certain IVD tests proposed by competitor companies could make obsolete some of the Company's platforms in the process of development or already marketed and thus threaten its market share.

Furthermore, technical, industrial, regulatory or commercial difficulties concerning these products could affect the costs of projects or the growth and profitability of the Company.

As an example:

- the launch of new products may require more operational or capital expenditure than anticipated by the Company on R&D, production, marketing, sales force and commercial support, instrument placement and maintenance, medical education and customer training;
- the products may be accepted by laboratories and the medical community after a longer period than expected, delaying the positive impact on the Company's sales growth and profitability;
- it may be too costly or too difficult to manufacture certain new instruments or reagents on a large scale or to obtain the supplies necessary for their manufacture and marketing;
- the products and systems developed by the Company could be faulty and this could delay their marketing, affect their commercial success or give rise to additional expenses for the Company in order to remedy the faults and/or compensate customers.

There is a material risk that the Company may shelve R&D projects in which significant human and financial resources have been invested, even at a development stage close to the commercial launch date, which could impact the Company's financial position.

Risk Management: The Company pays particular attention to the selection, progress and monitoring of its R&D projects. The R&D activities are organised around teams dedicated to clinical, industrial and molecular biology projects. The Company endeavours to incorporate market expectations and to apply its knowledge base and technological platforms into the definition of its new products in order to deliver systems that facilitate the creation of medical and technico-economic value for its customers.

In 2017, the Board of Directors created the Strategy Committee whose mission is to analyse the Company's main challenges, particularly those related to changes in the technological, medical and market environments in order to guide the Group's strategy by adapting its solutions or its business model. The Portfolio and Strategic Planning Department ensures that the overall strategy is aligned with the project portfolio and helps define R&D projects together with the Units. The Company also has an Innovation Department headed by the Chief Innovation Officer and assisted by the Chief Medical Officer in order to develop its portfolio of biotechnologies by fully leveraging their medical added value.

2.2.2 Business Development strategy

The growth of the Company depends partly on targeted acquisitions, the acquisition of stakes, and external partnerships that enrich its technology portfolio, product offering and geographic positions.

The Company may be unable to:

- **find or retain partners willing to provide it with the technologies, products or market access it may need;**
- **pursue its strategy of the acquisition or use under licence of technologies developed by third parties, or renew the rights required for some of its operations at the expiration date;**
- **meet the objectives set at the time of acquisitions, chiefly owing to differences between the initial estimate and the actual results of the business plan.**

The value of certain targets or the conditions needed to obtain certain licences may represent obstacles to signing or renewing agreements required for the implementation of this strategy.

Acquisitions may be delayed by the complexities of finalising agreements, especially as regards obtaining regulatory clearance.

If the Company is unable to leverage this strategy, this could delay its growth and/or have a significant impact on its sales performance or financial position. The main licences on which the Company's business depends along with their expiration dates are listed in section 1.6.2.2.

Although the Company strives to conduct the due diligence necessary to properly value its target companies and their compliance with regulations, and to ensure that the business plan is being properly executed, the environment may change, and this could impact the Company's business, financial position, or ability to achieve its objectives.

Risk Management: The Company has set up a Technological Watch and Competitive Intelligence Department, as well as a Business Development Department staffed by international teams. Compared to its main competitors, it benefits from its relatively small scale, which gives it flexibility and makes decision-making under its Business Development strategy more efficient.

The Company may have difficulties in efficiently integrating the companies it acquires.

bioMérieux's strategy includes targeted acquisitions. These acquisitions seek to strengthen the Company's commercial positions, and/or enhance its innovation portfolio, products and services. If difficulties are experienced in integrating the acquired companies, the Company could lose key expertise, which would decrease the value of the technologies acquired, or could fail to benefit within the expected timeframe from the synergies calculated at the time of acquisition.

Risk Management: Over the years, the Company has developed wide experience in integrating acquired companies and, during prior audits, it endeavours to anticipate the actions to be carried out, notably concerning intellectual property, technologies and synergies. The possibility of gradually rolling out the Global ERP in the newly acquired companies, covering most of the transactional processes and deployed in most subsidiaries of the Group, is also a means of alignment and integration.

The Company may take minority stakes in companies with which it signs development, research or technology agreements, or which invest in medical technology companies. These stakes can involve financial risk.

The companies, which often develop products upstream (see Note 3.3.3 in section 6.2.2), tend to be exposed to greater risks than the Company. If they experience difficulties, bioMérieux might have to write down the value of the stocks it holds.

Risk Management: The Company carries out financial and commercial analyses of companies before investing in them. After investing in them, it monitors their financial position. In some cases, it may sit on the Board of a company it invests in.

2.3 Internal risks linked to the organisation and operation of bioMérieux

The organisation and operation of bioMérieux reveal internal risks specific to the Company, particularly in relation to its information system, human resources, or even its policy for the location of industrial facilities.

2.3.1 Failure of the information systems

The Company could face a failure of its information systems, and/or run the risk of attacks by cybercriminals.

Any failure or malfunction of equipment, applications, the communication network, particularly the Global ERP system, or the electronic messaging system could adversely affect the Company's business and cause it financial losses.

In addition, with the development of cybercrime, the security of information systems is an important issue for the Company, notably in matters of protection of its data (see section 2.5.3) particularly concerning its R&D and production know-how, its customers, employees and patients. In the event of a successful cyber attack on its information systems or on customers' instruments connected to these systems, the Company could incur the theft of confidential data or a complete or partial interruption of its operations. The development of its new products could also be affected, and all this could alter the reputation, financial position, and the rights and competitive advantages of the Company.

Risk management: The Company created an Information Systems Department tasked with ensuring the availability, continuity, and performance of IT systems, implementing an IT security programme based on risk management to ensure the control and protection of information (confidentiality, integrity) according to the established classification, and perform audits on internal processes and those of external partners to ensure proper performance and compliance with procedures.

To prepare for the eventuality of a major incident, the Company has set up disaster recovery procedures in order to quickly return to a satisfactory level of business. In addition, critical applications and networks are duplicated according to clearly defined criteria. The Company has also set up a process to manage and authorise any changes to its IT systems. Lastly, it endeavours to strictly control the access permissions to the various applications making up its information system.

The Company pays particular attention to the security of its information systems, notably through a dedicated "Global Information Systems Security Officer" function. This function works with internal experts and external partners to implement and maintain a security strategy and security management based on international information systems security standards ISO 27001 and ISO 27002 and in particular a system of risk analysis that combines governance, an IT security and processes policy, checks and audits, training and awareness-raising among end users with the use of the right technologies for reducing exposure to cybercrime.

The development of social media and digital communication tools brings about new risks.

The use of social media websites and digital communication tools, particularly to promote products or certain Group events, merits special attention. Negative comments could tarnish the Company's image. Furthermore, employees and partners of bioMérieux could, *via* their personal accounts, use social media and digital communication tools inappropriately, particularly by storing unsecured confidential information on unsecured public applications which could be misappropriated or misused by third parties, notably by disseminating sensitive and/or confidential information, which could harm the interests of the Company.

The misuse of social media or mobile phone technologies could have a negative impact on the Company's business, financial position, operating results or reputation.

Risk management: The Company has drawn up a list of persons authorised to manage its accounts on social media websites and use digital communication tools. Only these persons can represent the Company on social media websites and digital communication platforms. The Company has also set up a system to monitor comments. Lastly, the Company aims to raise the awareness of and train those who have access to and/or hold sensitive information and to disseminate best practices to limit this risk, notably concerning the use of information systems.

2.3.2 Human Resources management NFPS

The Company's success largely depends on certain key personnel, such as senior executives, scientists and high-potential employees.

If the ability of the Company to attract and retain individuals with the necessary skills and talents, particularly in the Company's new markets and in newly acquired companies, were to diminish or become insufficient, the achievement of the Company's objectives could be affected and this could have an adverse impact on its results. Furthermore, the loss of these employees, or the inability to hire new ones, could result in a loss of know-how, product or market expertise, and the possibility that competitors could obtain sensitive information and impair the Company's competitiveness and compromise its ability to achieve its objectives.

If the Company were unable to improve its human capital, particularly by qualifying and quantifying the skills required to adapt to changes in its environment, it could lose its competitiveness and find it impossible to achieve its strategic plan.

Risk management: The Company places strong emphasis on the recruitment, career development, and retention of its employees, as well as the anticipation of the skills needed to support its strategic objectives. It has specifically implemented programmes and policies for the recruitment, development, and retention of its employees, as well as to anticipate the skills needed to support its strategic objectives. These policies are described in section 3.2.2.

2.3.3 Location of industrial facilities policy NFPS

The occurrence of an event causing a temporary or permanent interruption in production at one of the Company's manufacturing sites could have a negative impact on its financial position, sales and growth outlook.

2.3.3.1 "Single-site" process

The Company operates 18 manufacturing sites, each primarily dedicated to a single product line and technology, based on the principle of "one site-one product line". As a result, with the exception of ready-to-use media, key product lines are each manufactured at a single dedicated site that is generally close to the R&D, marketing and customer support teams in charge of these products. Duplicating production of these product lines at other sites would require significant technological, regulatory and financial investment in terms of time spent and resources used.

Any industrial, economic, political, labour, regulatory or environmental incident or accident affecting production capacity or causing a temporary or permanent interruption in production at the single-product manufacturing sites could give rise to a public health risk and have a material adverse impact on the Company's sales and image.

This kind of event could also affect the Company's profitability, either permanently with the structural reinforcement of its organisation, or temporarily through significant use of advisory and assistance services.

If it were impossible to quickly resume operations at the production facility concerned, the Company could be forced to relocate production of the product line concerned. Due to the complexity of the products manufactured by the Company, relocating production could be long and expensive for the Company, thus increasing the negative impact of the production stoppage on the Company's sales, financial position or earnings.

In France, the Company has an international logistics centre. As above, any economic, political, labour, regulatory or environmental incident causing a temporary or permanent interruption of operations at this centre could have a negative impact on the distribution of products and on the Company's financial position.

Risk Management: A contingency plan is already in place at the main sites, and the Company is working to extend these plans to all of its facilities. This risk is covered by the Company's insurance policy (see section 2.8). In addition, the Company has implemented regular monitoring of the natural disasters risk, which enables it to evaluate the impacts of climate change on the regions in which its sites operate. Furthermore, given that the Company consumes little water and is therefore hardly dependent on it, it does not anticipate any major risk associated with the increasing scarcity of this resource.

2.3.3.2 Importance of invested capital

Manufacturing sites are subject to regulatory approval processes and periodic inspections, in particular by the US FDA. The Company's Manufacturing sites, as described above, as well as the amount and growth of reagents and consumable product volumes, require significant capital expenditure to finance industrial investment.

In addition, returns on invested capital could be slower than expected.

If the Group is unable to finance its new manufacturing needs to maintain and renew its manufacturing sites or increase its production capacities, it could be forced to limit its growth in certain product lines, allocate its available resources differently or even abandon certain projects under development.

Risk Management: The Company works to ensure that its cash flow from operating activities is sufficient to cover its capital expenditure. It endeavours to retain medium-term credit facilities with banks, allowing it to maintain adequate cash reserves. The Company has also created a Capex Committee, which is in charge of authorising capital expenditure according to specific financial and operating criteria.

2.3.3.3 Transfer of production and logistics activities

In order to optimise production and logistics, the Company may have to shut down certain facilities or logistics centres and transfer their activity to other sites. These transfers require the Company to obtain the regulatory clearance needed to produce IVD systems and could prove lengthier and more costly than originally expected, and even lead to a stoppage in production and distribution.

Risk Management: Transfers of activity are managed by multidisciplinary project groups, aiming to deal with all of the associated problems.

2.3.3.4 Risks linked to industrial accidents

The Company does not operate any facilities classified by the Seveso directive as "upper tier" (high risk) sites.

The nature of the Company's business requires it to use biological agents. Though these are used in compliance with international recommendations, and emergency response plans are in place, accidental dissemination of biological agents could entail a risk of exposure for people and the environment.

Risk Management: a Health, Safety and Environment (HSE) Department operating at Group level develops a harmonised and proactive approach aimed at preventing harm to individuals, property and the environment (see section 3.2.2.4).

2.4 External risks linked to the organisation and operation of bioMérieux

The organisation and operation of bioMérieux expose the Company to external risks, particularly due to its relations with its partners, such as, for example, its suppliers, distributors or customers, as well as due to the international nature of its activities.

2.4.1 Dependence on certain suppliers NFPS

The Company is dependent on certain suppliers, some of whom are exclusive (see section 1.2.2.5). Its profitability and production capacity may be affected in the event of a disagreement, or if the suppliers fail to meet their obligations.

On the other hand, certain suppliers are highly dependent on their business relationship with the Company, which could prove to be costly should these relationships come to an end.

The Company could lose the exclusive rights it holds with certain key suppliers to competitors. This could have an impact on its competitive position and weigh on its sales and growth prospects.

Some Company product components could become obsolete. This could force the Company to build up additional stocks of these components, if the suppliers were to discontinue their production or they were to disappear, or even to redevelop some instruments in full or in part, leading to substantial development costs and lower margins.

The Company uses an extensive network of suppliers. The process of qualifying all the materials, components and supplies it uses is often quite long and limits the number of authorised suppliers. A disagreement with certain suppliers or a failure of suppliers to meet their obligations could create difficulties for the Company's manufacturing operations, including for some of its main products, leading in certain cases to delivery interruptions and material additional costs and delays resulting from the need to validate and put in place alternative procurement solutions. In addition, certain suppliers' quality defects could negatively impact the Group's products, despite all of the Group's efforts to control quality.

Risk Management: The Company has set up a Global Purchasing Department and maps the risks associated with its key suppliers. This department looks to secure supplies by maintaining close relationships with strategic suppliers and using as many suppliers as possible, and by endeavouring to enter into long-term agreements and holding buffer inventories. It also looks to involve its suppliers in a sustainable growth strategy. Supplier risk assessments in relation to geopolitical, societal and environmental factors supplement these security measures. Furthermore, the Company continually highlights its work on responsible purchasing and renews its support for the United Nations Global Compact annually (see section 3.5.2).

2.4.2 International operations NFPS

The Company is exposed to certain risks related to the international nature of its business.

The Company does business throughout the entire world, which requires comprehensive monitoring of its obligations, challenges and tax risks. In addition, it faces numerous risks on account of its international operations and changes in the political and economic environment, including those relating to:

- risks of unpaid debt, both public and private, and limitations concerning the cross-border payment of invoices or the repatriation of profits or assets held abroad;
- product distribution throughout the world and availability of transportation;
- management of a network of external distributors;
- risks related to the emergence of new export-control regulations concerning countries in which certain customers of the Group are based (risks) related, in particular to Brexit, heightened trade tensions between the United States and China, or embargoes and sanctions policies).

If these risks were to materialise, they could affect the development of the Company's business, as well as its profitability and working capital, in particular by increasing customer payment periods and increasing inventories. They could also lead to the recognition of significant expenses in the financial statements (impairment, tax reassessments, fines and penalties, etc.) and are therefore likely to have a negative impact on the Company's business, financial position or earnings.

Risk Management: The Company has a diversified geographical base. It has deployed a regional organisation that enables it to make decisions close to operating centres and to adapt its management to the economic environment of every country in which it does business. Its Regulatory Affairs Department allows it to verify compliance with current obligations and applicable regulations (see section 1.5). In addition, its Export Compliance Department monitors compliance with export control obligations and regulations. Also, the Company has a Tax Department which ensures compliance with tax regulations and obligations in all countries where the Company is established (see section 3.6) Lastly, the Company has established a Regulatory Monitoring Committee to identify significant regulatory changes that could impact bioMérieux's business.

2.4.3 Dependence on partners

The Company, which is dependent on partners to develop, manufacture and market certain products, could suffer from disagreements with its partners on the conduct of operations.

The Company collaborates with partners on the development of certain products, the manufacturing of certain products, and the marketing of its products in certain countries. These partnerships may, in the event of strategic differences between the parties, prove more complex than anticipated and this may delay the associated product launches, put a stop to projects, affect the production or marketing of the Group's products or result in the termination of a partnership and affect its sales and operating income. Any incident affecting these third parties or cessation of their activity would affect the Company's activity and its operating income.

Risk management: The Company is organised to work in close collaboration with its partners. Projects are managed by joint steering committees comprising the multi-disciplinary teams of both partners.

2.5 Regulatory and legal risks

The Company is exposed to risks from any potential deviation from regulations in the countries where the Group operates, these regulations being generally specific, scalable and complex.

For example, the Company is exposed to risks related to unexpected changes or lack of harmonisation in regulatory matters. These regulatory and legal risks may be inherent to the Company's business (see section 2.5.1) or applicable to other types of organisation (see sections 2.5.2 to 2.5.6).

The Company has created a Legal Affairs and Intellectual Property Department which contributes to the proper management of Corporate governance by ensuring the formalisation of bioMérieux's external relations (suppliers, customers, partners, governments, etc.) and by ensuring that bioMérieux's interests are protected within the context of its transactions and the applicable legislation. It also organises the protection and valuation of scientific and technical innovations created by bioMérieux, in liaison with the departments concerned.

In addition, the Company has established a Regulatory Monitoring Committee to identify significant regulatory changes that could impact bioMérieux's business.

2.5.1 Regulatory environment applicable to products NFPS

Regulatory constraints could adversely affect the Company's ability to market its products or could increase their manufacturing costs.

The Company's products and their manufacturing process are subject to strict, fast-changing regulations which vary widely from one country to the next. These products are inspected by regulatory authorities throughout the development, manufacturing and marketing process.

The inspections – required by the regulatory authorities or initiated by the Company – may result in (i) modification of products or of their production methods, (ii) product withdrawal, (iii) the suspension of current product applications for products developed, (iv) a remedial action plan in the event of non-compliance, (v) in exceptional cases, the closure of a manufacturing site, if significant risks are caused by non-compliant results obtained when using the Company's products, and/or (vi) the Company being ordered to pay potentially significant fines.

The launch of *in vitro* diagnostic solutions is subject to the Company obtaining regulatory clearance. Securing the regulatory clearance or certification needed to market a new product may take several months or, in some countries, one to two years, and requires significant financial resources. Moreover, an increasing number of countries are creating regulatory bodies that are gradually implementing their own requirements for the registration of products, resulting in an increase in the number of registration cases to handle, whether for new references or existing references.

"Single-site" organisation (see section 2.3.3.1) reduces its exposure to the risk of non-compliance that a third party could identify in an audit.

In addition, regulations aimed at limiting the launches and use of certain dangerous substances are being progressively applied to the *in vitro* diagnostics industry and have induced the Company to integrate these requirements throughout all its activities. These regulations may oblige the Company to redevelop or even discontinue certain products if it cannot find alternative solutions.

The costs necessary to bring the products into compliance are recognised as expenses each year and no provisions specific to the RoHS and REACH regulations were recorded in the accounts of the Company on December 31, 2018.

As a result, new applicable regulations or audits performed at the Company's manufacturing sites could:

- delay or preclude the marketing of new products by the Company;
- force the Company to halt production or sales of existing products;
- oblige the Company to change manufacturing and quality control processes;
- impose costly constraints on the Company as well as on its suppliers.

Lastly, the changes to the European regulations concerning *in vitro* medical diagnostic devices (see section 1.5.2) could lead to delays and additional costs in launching new products, for the Company and for all players in the European market. Similarly, the Company could be required to redevelop certain products in response to changing standards in the food industry.

Risk Management: The Company strives to reduce this risk by rigorously inspecting production output and by monitoring regulatory compliance through the Quality Management System Department in all countries in which the Group operates (see section 1.5). In addition, a number of standards or benchmarks (including ISO) are in force within the Group. The Company sets up specific project teams to reach the level of compliance expected at the various deadlines set by these new regulations. These teams set priorities, define the compliance action plan and ensure the viability of the solutions selected for current products and for future developments.

Its Regulatory Affairs Department allows it to identify new regulations and ensure compliance with current obligations and applicable regulations.

In addition, the Group complies with the European directive on waste electrical and electronic equipment (WEEE directive), and hires external service providers to remove equipment from customer sites located within the European Union and for the safe removal of heavy metals included in certain equipment. Accordingly, it no longer establishes provisions in this regard.

2.5.2 Good business practices NFPS

The risk of corruption linked to bioMérieux's business is potentially high.

First and foremost, the Company sells, either directly or through distributors, in most countries worldwide. This requires it to be extremely vigilant on this point, especially when referencing the Corruption Perceptions Index updated annually by Transparency International.

In addition, the fact that these products are eventually sold to public and private healthcare entities requires it to pay close attention to the strict application of local rules (anti-corruption laws) and international or extra-territorial rules (US FCPA rules, UK Bribery Act, Sapin II law, etc.) that penalise corruption. Furthermore, bioMérieux maintains close relationships with healthcare professionals in order to carry out its activities successfully (medical and scientific expertise, market studies, clinical studies, medico-economic studies). The Company scrupulously applies the anti-gift and transparency regulations that are applicable not only in most countries, but also in local and regional in vitro diagnostics industry codes that bioMérieux follows. However, despite all of the efforts that it makes to comply with these regulations, the Company could fail to meet its obligations.

Risk management: bioMérieux actions are governed by a set of principles, directives, standards and procedures that correspond to current ethical norms. Thus, bioMérieux is developing an anti-corruption program which reflects the principles of the Global Compact and current regulations.

In particular, this program includes a specific component covering the correct rules for engaging with healthcare professionals. It is described in section 3.4.2.

Since a significant portion of its sales are made through international or local distributors, bioMérieux contractually requires its partners to use the same high standards in the application of anti-corruption rules. It has also established an online training program for their staff covering these high-risk subjects.

2.5.3 Managing the protection of personal data NFPS

Within the scope of its activities, the Company has access to personal data concerning patients. The confidentiality of personal data is protected through particularly strict regulations in the United States and Europe. In addition, systems marketed by the Company process patient data on a daily basis. The Company must ensure that the confidentiality, integrity and availability of this data are respected. The Company may fail to comply with these regulations or it may fail to protect patient data, which could result in administrative, civil and criminal sanctions. Finally, a new regulation (Regulation (EU) 2016/679, the general regulation on data protection) came into effect in May 2018. It aims to strengthen the framework for the protection of personal data (mainly patients and employees).

Risk Management: The Company has a Data Privacy Manager who reports to the Internal Audit, Risk and Compliance Department. The Data Privacy Manager supervises all current activities relating to the preparation, implementation and enforcement of Company policy in terms of protection of privacy in compliance with applicable international laws and regulations. The Company has initiated a programme to achieve compliance with the new general regulation on data protection. Accordingly, bioMérieux has established a network of personal data representatives across all of its sites and subsidiaries as well as in global functions. The role of this network is to be the interface between the person in charge of the protection of personal data and the entities.

2.5.4 Fraud

The development of new technologies and communication channels and the risk that employees fail to comply with the Company's procedures raises the risk of situations of fraud developing within Company entities.

Risk Management: to minimise the risk of fraud, the Company has put in place an internal control system designed to prevent and identify fraud and ensure that procedures are duly applied. These include regular internal and external audits. Without making an assessment as to its ability to prevent future fraud attempts, the Company has been faced with fraud situations involving its Chairman and identity theft impacting its suppliers without suffering major operational or financial impact. The Company has set up a process for centralising information concerning attempted fraud and for managing corrective and preventive actions, notably for managing the risk of cybercrime (see section 2.3.1) and educating employees about the methods commonly used by fraudsters.

2.5.5 Intellectual property

If the Company were unable to protect its intellectual property rights, it may not compete effectively or may find it impossible to maintain its profitability.

The Company's success depends, among other things, on its ability to obtain, maintain and protect patents and other intellectual property rights effectively. Intellectual property law in the health sector is constantly changing and gives rise to uncertainties. Accordingly, the Company may not be able to:

- develop patentable inventions;
- be granted the patents for which it has applied or will apply;
- obtain or renew the licences it needs for its business;
- ensure that the validity of the patents or trademarks it holds, or for which it has been granted a licence either now or in the future, will not be challenged by third parties;
- be sufficiently protected by its patents to exclude competitors;
- ensure that the patents or other intellectual property rights held, or for which the Company has been granted a licence either now or in the future, will not be challenged by third parties.

Within the scope of joint development projects, the Group cannot be certain that the confidential nature of its unpatented technologies or its industrial secrets will be effectively safeguarded by the mechanisms in place, or in the event that confidentiality is breached, that the necessary measures can be taken.

The Company's patents may be infringed, or the Company may infringe the patents of others.

Competitors may infringe the Company's patents or other intellectual property rights or successfully circumvent them through design innovations. Actions may be taken by the Company against infringement, which are expensive and labour-intensive. Policing unauthorised use of intellectual property is difficult, and the Company may not be able to prevent misappropriation of its intellectual property rights.

As the *in vitro* diagnostics industry develops, more and more patent applications are filed and patents granted, leading to an increased risk of unintentional infringement of third-party patents.

If this occurs, the Company may have to obtain the appropriate licences to use third-party patents, cease certain activities or seek alternative technology if obtaining a licence is impossible or unprofitable.

Risk Management: To minimise intellectual property risks, the Company pursues an active policy of patenting and of monitoring third-party products to identify potential infringers of its patents (see section 1.6.2.1). As applicable, it pursues, with respect to these infringers, either amicable resolutions or the judicial proceedings required to protect its rights. Similarly, the Company checks the freedom to operate in relation to third-party patents for all products under development. The Company has set up a monitoring system to be able to prevent registration of third-party brands and trademarks that are likely to create confusion with its own key brands. Before launching a new brand, bioMérieux verifies as far as possible that the brand will not infringe the rights of third parties

2.5.6 Environmental risks NFPS

Liabilities with respect to the environment or changes in health, safety and environmental regulations and the ensuing cost of achieving compliance, could have an adverse effect on the Company's operating income and financial position.

Environmental laws and regulations could require the Company to maintain and restore sites where potentially noxious industrial products are manufactured and stored, in the event that the sites were found to be contaminated. These obligations may relate to sites currently owned or operated, or to sites that were owned by the Company or operated in the past, or even sites where waste that it produced was dumped. Similar obligations may also apply to the recycling of instruments installed at user sites or sold to users.

The Company could be involved in legal or administrative proceedings relating to environmental matters. The introduction of stricter health, safety and environmental laws and more thorough enforcement measures than those currently applied could result in considerable costs and liability for the Company.

If manufacturing sites were to be closed for reasons relating to the enforcement of environmental and occupational health and safety laws, the Company could suffer a temporary interruption in the manufacture of certain products and the regulatory clearance needed to resume production could take a long time to obtain.

Risk Management: A Health, Safety and Environment (HSE) Department operating at Group level develops a harmonised and proactive approach aimed at preventing harm to individuals, property and the environment (see section 3.2.2.4). The department looks to ensure that employees are aware of and comply with applicable regulations.

2.6 Claims and litigation and liability

2.6.1 Claims and litigation

The Company is a party to a certain number of claims and litigation.

Claims and litigation involving the Company (or the Group), along with the related provisions, are described in Notes 15.4 and 15.5 in section 6.1.2.

bioMérieux, like other industrialists, was summoned before the *Tribunal de Grande Instance de Paris* by over ninety patients to obtain compensations linked to anxiety allegedly "generated by a lack of reliability of serodiagnostic tests" for Lyme disease.

bioMérieux objects to the claims in the summons that it considers groundless according to the present state of the available elements and considers that the financial consequences of this civil procedure cannot be reliably anticipated at this stage.

To the best of the Company's knowledge, there are no other governmental, legal or arbitration proceedings, whether pending or threatened, that are liable to have or that have had over the past 12 months a material impact on the Company's financial position or profitability.

2.6.2 Liability linked to products

The production and marketing of diagnostic products generally expose the Company to product liability risks.

The Company could be held liable if a diagnostic error resulting from the defective performance of one of its products leads to unsuitable treatment of a patient or the marketing of contaminated products. Even if diagnostic products are designed, manufactured and delivered in compliance with the quality standards (described in section 1.5) and it is common practice to perform a series of additional tests to reduce the risk of error for the most serious diseases, this risk cannot be totally eliminated.

The Group uses biological products that are manufactured or created from components developed from materials that are of human, animal or plant origin and which cannot yet be manufactured inexpensively using synthetic materials. This process causes risks in the use of these products or components because of the variability related to their origin.

There are no guarantees that the Company will always be able to obtain and maintain adequate insurance on acceptable terms to cover its liability. Should the Company fail to obtain insurance at a reasonable cost or otherwise protect itself against potential product liability claims, it could incur significant liability that could undermine the marketing of its products and considerably harm its business and financial position.

Risk Management: The Legal Affairs and Intellectual Property Department ensures compliance with applicable legal and regulatory requirements in its dealings with all of its partners (see section 2.5). The department has put in place insurance protecting it against legal risks. This includes a civil liability policy in respect of damage and business losses (see section 2.8).

2.7 Market risks and financial risks

The main market and financial risks comprise the foreign exchange rate risk (See Note 28.1 of section 6.1.2), the rate risk (See Note 28.4 of section 6.1.2) and a counterparty risk (See Note 28.5 of section 6.1.2).

Other risks, considered to be less significant by the Company are nevertheless monitored and are described in the Notes, particularly the risks related to listed equity investments (See Note 7.2 of section 6.1.2), pensions (See Note 15.3 of section 6.1.2), credit (See Note 28.2 of section 6.1.2), debt (See Note 28.1 of section 6.1.2), liquidity (See Note 28.3 of section 6.1.2 and section 2.3.3.2), as well as the volatility and liquidity of the share price (See Note 14.3 of section 6.1.2).

2.8 Insurance and risk management

2.8.1 Insurance policy

The Company's policy regarding insurance coverage is designed to ensure that all subsidiaries have access to similar coverage, regardless of their size or location. Generally, all new companies acquired by the bioMérieux Group are included in the insurance programmes.

Coverage purchased takes into consideration the specific nature of local regulations, while at the same time reflecting the Group's centralisation and overall coverage policies. Insurance policies are purchased from insurance companies selected on the basis of their creditworthiness as well as their ability to provide the Company with risk prevention services.

Coverage is calculated on the basis of loss assumptions, taking into account the Company's risk profile. The Group also takes care to keep confidential any information relative to deductible amounts and premiums, and the terms of coverage, to avoid them being used against its interests. This is particularly true in the case of liability insurance.

2.8.2 Principal insurance policies

2.8.2.1 Civil liability

The nature of the Company's business has also been taken into consideration for the purpose of liability coverage (professional nature of most of its customers and batch manufacturing processes that reduce the likelihood of multiple risks). Separate policies are sometimes required to cover specific risks, either due to insurance regulations or applicable laws.

The Company and all of its subsidiaries are insured under an umbrella policy covering operating liability, liability after delivery and/or product liability and/or liability for experimentation, professional liability and liability for environmental damage caused by its products. This umbrella coverage is separately supplemented by the following specific policies: civil liability for environmental harm caused by the companies of the Group and civil liability incumbent upon the Group pursuant to the regulations on biomedical research (Jardé Act).

The Company also has an insurance program covering the liability of its corporate officers, senior executives and representatives.

2.8.2.2 Property and casualty

The guarantees purchased include accidental events coverage (fire, machine breakage and computer damage in particular), as well as consequential operational losses.

The Company and its subsidiaries have umbrella coverage for property and casualty which includes coverage for accidental events such as fires, machine breakage, theft and natural events likely to affect the Company's sites, and consequential loss of operation. This Master policy covers all subsidiaries located in the European Union, making it unnecessary for them to take out insurance locally. It can also be extended to cover subsidiaries located in major countries outside the European Union, including the United States, through local agreements with the same benefits or as supplementary coverage or where no coverage has been taken out locally to comply with regulations.

2.8.2.3 Transport

"Ordinary" risks related to the transport of goods by land, sea and air are covered by an umbrella insurance policy. Freight transportation insurance contains the usual exclusions, namely for nuclear, chemical, biochemical, electromagnetic and cyber risks.

2.8.2.4 Cyber

bioMérieux has an insurance policy that covers damages and civil liability for risks arising from an IT breach or a breach of personal data confidentiality.

2.9 Administrative, legal and arbitration procedures

The Company is involved in a certain number of claims and litigation arising from the normal course of its business. It does not believe that these claims and litigation will have an unfavourable influence on the continuity of its operation. The Company is not involved in litigation considered to be material, with the exception of the proceedings described in Notes 15.4 and 15.5 in section 6.1.2 to the consolidated financial statements.

In particular, the Company, like other laboratories, was summoned before the *Tribunal de Grande Instance de Paris* by over sixty patients to obtain compensations linked to anxiety allegedly "generated by a lack of reliability of serodiagnostic tests" for Lyme disease.


bioMérieux

3

A CORPORATE CITIZEN SERVING PUBLIC HEALTH

bioMérieux is above all a Corporate citizen, through its historic and pioneering commitment to the fight against infectious diseases. bioMérieux considers serving global public health to be an important responsibility, one that the Company takes very seriously throughout its various fields of expertise, in particular infectious diseases. The Company's history reflects a long-standing commitment to Corporate Social and Environmental Responsibility, as illustrated by its signing up to the Global Compact in 2003. Indeed, the humanist values held by the bioMérieux family form the bedrock of a responsible Corporate culture translated into bioMérieux's international strategy.

The Company and its shareholder, Institut Mérieux, have also made philanthropy and giving back to society its duty.

"Our commitment to philanthropy goes to the heart of the public health mission of our Institute. Infectious diseases can only be combated on a global scale as bacteria and viruses know no borders".

Alain Mérieux, Chairman of Institut Mérieux

bioMérieux's social, corporate and environmental commitment has been recognised for a number of years by extra-financial rating agencies that evaluate its CSR performance and have included it in their SRI indices (Socially Responsible Investments) such as the OEKOM Research, FTSE Russell (FTSE4Good Index), Vigeo Eiris, CDP (Carbon Disclosure Project), Forum Ethibel (*Ethibel Sustainability Index* (ESI) Excellence Europe), EcoVadis and Corporate Knights Global 100 index.

In accordance with L. 225-102-1 of the French Commercial Code, this chapter sets out the information required for the Non-financial performance statement (NFPS).

3.1 A business model based on economic development and a social commitment in support of public health and future generations

The various parts of the business model are set out in the chapters of this Registration Document according to the concordance table below and bioMérieux's value creation chart presented briefly on pages 8 and 9.

Organisation and structure	Organisational structures Governance	Section 1.4 Section 4.2
Markets in which it operates	The *in vitro diagnostic industry* Areas of expertise	Section 1.2.1 Section 1.2.2.1
Main activities	Research & development Production Distribution network	Section 1.6.1 Section 1.7.2 Section 1.2.2.4
Market position	Competition Trade receivables Trade payables Regulations	Section 1.2.2.2 Section 1.2.2.3 Section 1.2.2.5 Section 1.5
Products and services		Section 1.2.3
Key figures and performance indicators		Section 5.1
Objectives and strategies	Market trends and growth prospects bioMérieux's strategy bioMérieux trends and objectives	Section 1.2.1.4 Section 1.3 Section 5.6

bioMérieux has a humanist and responsible approach to business and makes Corporate Social Responsibility a fundamental and core part of its business model.

3.1.1 An independent shareholding structure that serves public health

An entrepreneurial adventure going back over a century (see section 1.1.1)

"bioMérieux's entrepreneurial adventure has its roots in a strong family commitment to serving public health. Faithful to our pioneering spirit, our ambition is to remain a major player in the diagnosis of infectious diseases. Through our scientific multidisciplinary approach, with no geographical borders, and driven by the commitment of our staff worldwide, we will maintain this course with a long-term vision."

Alexandre Mérieux, Chairman and Chief Executive Officer.

bioMérieux's commitment to public health and its expertise in biology have their roots in the unique history of the Mérieux family. Institut Mérieux has a 59% stake in bioMérieux. Institut Mérieux commits its experience in biology to serving medicine and public health across the globe.

Established by Chantal and Alain Mérieux in 2001, the Fondation Christophe et Rodolphe Mérieux is an independent family-run foundation under the aegis of the Institut de France. Since 2005 it has been the reference shareholder of Institut Mérieux, holding one third of its shares. Its on-the-ground initiatives are financed through the portion of dividends paid by bioMérieux that it receives indirectly from Institut Mérieux.

As the reference shareholder of Institut Mérieux, Fondation Mérieux contributes to maintaining a humanist and responsible spirit in the Group. The presence of this reference shareholder ensures the viability of the Company, contributes to improving public health, particularly among the most disadvantaged groups, and makes the sharing of value, in line with the mission led by the Mérieux family and expressed within all of the Group's companies, a reality.

3.1.2 Sharing value with foundations

bioMérieux contributes to the Group's Corporate Social Responsibility by sharing the value created, particularly with 2 foundations: Fondation Christophe & Rodolphe Mérieux and Fondation Mérieux ("the Foundations"). These independent family Foundations fight against infectious diseases that affect developing countries by increasing their diagnostic capacities. In addition to strengthening local capabilities in biology, they also act to protect the most vulnerable individuals, especially mothers and their children.

Part of these dividends are paid indirectly to the Fondation Christophe & Rodolphe Mérieux, which is the only ultimate shareholder benefiting from them. This funds the foundation's activities.

Furthermore, bioMérieux supports the activities of the Foundations through its contributions. As such, the Mérieux Foundations received €2.350 million in 2018.

Fondation Christophe et Rodolphe Mérieux

The purpose of the Christophe et Rodolphe Mérieux Foundation is to support public health-applied biological research in developing countries, and more specifically aid in the fight against infectious diseases, and contribute to scientific and educational projects.

In an effort to support high-level research in emerging countries, it launched the Dr Christophe Mérieux Prize €500,000. Awarded each year, the aim of this prize is to sponsor researchers studying specific diseases in developing countries.In order to dedicate most of its resources to financing its projects, the Fondation Christophe and Rodolphe Mérieux relies on the staff of the Fondation Mérieux, entrusting to them its operational activities on the ground, in particular the construction and operation of the Rodolphe Mérieux Laboratories.

Fondation Mérieux

Since its founding in 1967 by Dr Charles Mérieux, the Fondation Mérieux, an independent family foundation recognised as being of public interest since 1976, has been fighting against infectious diseases in developing countries. Its objective is to strengthen laboratory diagnostic capabilities, which are often lacking in many countries suffering from repeated epidemics. Its actions favour diagnosis as an essential part of patient care, and also as an essential tool for monitoring and controlling diseases. Fondation Mérieux's activities are based on four priorities:

- applied research capacity-building on the ground by training researchers, creating diagnostic tools and developing collaborative research programs for diseases that affect these countries;
- improving access to diagnosis for vulnerable groups by building microbiology capacity in national health systems through the creation of laboratories of excellence (Rodolphe Mérieux laboratories), setting up or renovating medical laboratories in hospitals and training their staff;
- promoting dialogue and the sharing of knowledge between health sector stakeholders. Le Centre des Pensières (Annecy, France), a forum for discussion between the North and South, plays a key role in circulating knowledge and scientific innovation worldwide. For over 30 years, it has been playing host to parties working in the health sector, from all disciplines and all countries: researchers, clinicians, biologists, pharmacists, veterinarians, representatives of health and regulatory authorities);
- taking action for the mother and child through a holistic approach to health.

In 2018 for example, the Foundations enabled the ninth Rodolphe Mérieux laboratory to be opened in Tunisia and the rebuilding of the Qaraqosh school in Iraqi Kurdistan.

3.1.3 Diagnostics create value for healthcare systems

bioMérieux's mission is to help to protect patient and consumer health in the face of infectious diseases and, as such, responding to a number of major public health challenges.

Objective 3.3: by 2030, end the AIDS epidemic, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne illnesses and other infectious diseases.

3.1.3.1 Fighting antimicrobial resistance

In line with the One Health global approach promoted by international organisations to ensure common action in human health, animal health and environmental management, bioMérieux is actively contributing to the fight against antimicrobial resistance, recognised as a major threat to public health by leading health organisations and as a global priority by the United Nations. 2016 marked a turning point with the adoption of a "One Health" approach by the United Nations General Assembly. In June 2017, the European Commission, which has been heavily involved in the issue for a number of years, published an action plan based on this principle to fight antimicrobial resistance. Finally, in July 2017, this subject was included in the G20 Declaration which demonstrated the importance of the "One Health" approach and access to good diagnosis in fighting antimicrobial resistance.

It is also an important economic and social challenge for future generations. The projections are of particular concerning: an economic cost of more than $100,000 billion, and more than ten million deaths a year that may be linked to antimicrobial resistance in 2050, or one every three seconds.

Since 2016, bioMérieux has hosted a website dedicated to microbial resistance, whose main objective is to educate and raise awareness among the general public about this major public health challenge and to highlight the key role of diagnosis in combating this threat.

www.antimicrobial-resistance.biomerieux.com

This public health challenge is at the heart of bioMérieux's concerns. indeed, 80% of its sales from clinical applications are of products or services directly or indirectly associated with using antibiotics more effectively. bioMérieux's range is the most comprehensive on the market and includes BIOFIRE® FILMARRAY®, VITEK® 2, VITEK® MS, API®, and CHROMID® for microbial detection; VITEK® 2, ETEST®, RAPIDEC® CARBA NP for antibiotic susceptibility tests; VIDAS® PCT and the software APSS (Antimicrobial Prescription Surveillance System) in partnership with Lumed, for effective management of antibiotics.

bioMérieux participates in many international and national summits on this issue. For example, in September 2016, bioMérieux, represented by Mark Miller, Chief Medical Officer at bioMérieux, stressed the importance of diagnostic tests in the fight against antibiotic resistance at a satellite session of the United Nations General Assembly. In 2017, bioMérieux obtained FDA clearance to use VIDAS® procalctonin testing to support the proper use of antibiotics. In 2017, bioMérieux was signatory to the declaration on antimicrobial resistance at the last Economic Forum in Davos (Switzerland). The Company was also involved in the launch of the AMR Industry Alliance, a consortium aimed at making and measuring progress in combating antimicrobial resistance in industry. Mark Miller, Chief Medical Officer at bioMérieux, sits on the Board of AMR Industry Alliance as the representative of the diagnostics industry. Moreover, in November 2017 General Management signed the BIVDA (1) Antimicrobial Resistance Declaration. In 2018, bioMérieux organised a day of discussion in the presence of Lord Jim O'Neill, an eminent economist, politician and philanthropist who chaired The Review on Antimicrobial Resistance. Finally, Christine Ginocchio, bioMérieux's Director of Medical Affairs was appointed for a 4-year term to the US President's Advisory Council on Combating Antibiotic-Resistant Bacteria.

(1) British In Vitro Diagnostics Association.

As part of this drive, the Company has regularly organised the World HAI/Resistance Forum since 2007, bringing together world-renowned experts in the field of antimicrobial resistance and healthcare-associated infections. This forum led to the first global prevalence survey on the use of antibiotics and resistant bacteria in hospitals (Global Point Prevalence Survey). This unprecedentedly broad study was coordinated by Professor Hermann Goossens and Dr Ann Versporten of the University of Antwerp in Belgium and supported by bioMérieux. It helped collect data from more than 100,000 patients in 335 hospitals in 53 countries. The results obtained highlight the need to optimise prescription habits. This investigation quickly established itself as a major element in the measurement and monitoring of corrective actions and has resulted, in some countries, in national improvement programs. It also highlights the importance of the *in vitro* diagnostic, as well as the need to use more diagnostic tests and improve antibiotic prescribing practices in all countries. More recently, the Global Point Prevalence Survey was conducted by the WHO with the CDDEP (1), IDS (2) and GARP (3). bioMérieux has since renewed its support for conducting more surveys in 2017 which, with over 75 countries represented, will focus more specifically on education and low to medium income countries, particularly through online training developed by the BSAC(4). This training module, along with other tools, will enable hospitals to develop tailored action plans based on the results of the survey in their hospital and on local priorities.

The results of the second Global PPS were presented for the first time at the ECCMID Congress in 2018. To go further in its commitment towards and support for countries with limited income, bioMérieux has created a scholarship for 3 scientists from these countries; they will spend 2 weeks with Professor Goossens' team at the University of Antwerp to learn about how to get the most out of the Global PPS and implement appropriate local action plans to optimise the use of antibiotics and improve patient care.

In addition, continuing a collaboration with the pharmaceutical laboratory Pfizer, bioMérieux supports the multicentre surveillance study iCREST (infection-Carbapenem Resistance Evaluation Surveillance Trial). The objective of this project is to determine the prevalence of infections caused by bacteria resistant to the carbapenem class of antibiotics, and also to evaluate the efficacy of a new combination of antibiotics, bringing together ceftazidime and avibactam, in order to treat these serious and antimicrobial resistant infections. This study uses products developed by bioMérieux: the Chromogenic culture medium CHROMID® CARBA SMART and two ETEST® antibiotic susceptibility tests, ETEST® ceftazidime/avibactam (RUO) and ETEST® meropenem.

The Company also supports a number of initiatives to fight against microbial resistance in its host countries. bioMérieux participates every year in the "European Antibiotic Awareness Day", organised by the European Centre for Disease Prevention and Control (ECDC), and the "World Antibiotic Awareness Week" conducted by the WHO. In this context, bioMérieux is launching education and awareness-raising campaigns in regards to laboratories, clinicians, veterinarians and the general public to promote a more rational use of antibiotics. Thus, at World Antibiotic Awareness Week in 2017, at its Campus de l'Etoile site (Marcy l'Etoile (France)) bioMérieux presented an exhibition on antimicrobial resistance in the form of posters produced in conjunction with the Doctor Mérieux Biological Sciences Museum. This exhibition was used to raise awareness among Company employees about the proper use of antibiotics.

Finally, in Burkina Faso, bioMérieux has supported a cross-university degree in antibiology jointly organised by African and French experts through the funding of scholarships for six students from the University of Bobo-Dioulasso. The aim of this program is to train practitioners in public hospitals in prescribing antibiotics appropriately.

3.1.3.2 The fight against sepsis: early diagnosis in the front line

About 27 million people around the world are affected each year by sepsis. Making a diagnosis as quickly as possible is crucial for patients. The rate of survival is 60% when they receive the right treatment two hours after being accepted for treatment. It falls to 30% if administered 4 hours later. bioMérieux has the most comprehensive offering on the market for the diagnosis of sepsis, including tests covering immunoassays, bacteriology and molecular biology, based on both the response of the host with the VIDAS® procalcitonin test (PCT), and on the detection, identification and characterisation of the disease-causing organisms, notably with the BACT/ALERT®, VITEK® and FILMARRAY® ranges.

3.1.3.3 Managing the risk of epidemics due to emerging pathogens: providing an appropriate response in the countries concerned

bioMérieux has long been present in emerging countries and pays close attention to the emergence of new disease-causing organisms.

Solutions tested in the context of epidemics

Since 2014, bioMérieux has established a group of internal experts dedicated to threats from infections due to emerging pathogens (Zika, Ebola, MERS-CoV, Lassa fever, Marburg virus, Chikungunya, etc.) and which works to develop appropriate diagnostic tests. The aim is firstly to monitor the emergence of new epidemics, and secondly to develop and validate diagnostic tests for these emerging pathogens.

As such, in the face of the health crisis caused by the Ebola epidemic in West Africa in 2014, BioFire Defense, a bioMérieux subsidiary, obtained FDA (Food and Drug Administration) clearance for the emergency use of its clinical test to detect the Ebola virus: BIOFIRE® FILMARRAY® BioThreat-E test.

In 2015 the Company launched the ARGENE® MERS-HCoV r-gene® test, a new research-only RUO kit aimed at laboratories working on developing a tool for the diagnosis of the Middle East Respiratory Syndrome coronavirus (MERS-CoV). This molecular solution makes it possible to detect and screen for this pathogen which has a mortality rate of around 35% in humans.

In April 2017, the Company obtained CE marking for the BIOFIRE FILMARRAY® respiratory panel 2 Plus (RP2plus). It can test 22 pathogens (18 viruses and 4 bacteria) responsible for respiratory tract infections (including MERCS-CoV) simultaneously. This improved version, extended to the BIOFIRE® FILMARRAY® respiratory panel, offers

(1) The Center for Disease Dynamics, Economics & Policy.
(2) Infectious Diseases Society of America.
(3) Global Antibiotic Resistance Partnership.
(4) British Society for Antimicrobial Chemotherapy.

faster result times (45 minutes compared to around 1 hour previously) and greater sensitivity.

A centre of excellence on tropical infectious diseases and research programs

In 2016 the Company created a Centre of Excellence in Brazil, where local teams are conducting research projects on the diagnosis of tropical infectious diseases.

In April 2017, bioMérieux and its partner, the Institute of Tropical Medicine at the University of Sao Paulo, received the financial backing of the Sao Paolo State Research Foundation (FAPESP) for a program to research severity markers for viruses such as Dengue, Zika and Chikungunya.

3.1.4 Other contributions and charitable initiatives and activities

Pursuant to Act No. 2003-09 of August 1, 2003, the Company's Board of Directors decided to contribute a portion of sales to sponsorship activities. The table below shows the funds contributed to Corporate sponsorships and other donations:

Contributions, donations and sponsorships In thousands of euros	2018	2017	2016
Contributions	3,654	3,047	2,578
of which to the Mérieux Foundation	*350*	*33*	*191*
of which to the Christophe and Rodolphe Mérieux Foundation	*2,000*	*2,000*	*1,325*
Sponsorships, other donations, national heritage and acquisitions of living artists' works	854	372	260
TOTAL	**4,507**	**3,419**	**2,838**
As ‰ of sales	*3.8*	*3.0*	*2.7*

3.1.4.1 Working with local communities

The Group is involved in the life of the local communities around its sites and subsidiaries, taking part in social and cultural initiatives. As an example:

- The Company implements a policy promoting the employment of troubled youth and equal opportunities through **partnerships** with the *Sport dans la Ville* and Institut Télémaque associations.

Since 2007, bioMérieux is one of the main partners of the Sport dans la Ville association in France, whose purpose is to promote the social and professional integration of young people from underprivileged neighbourhoods through sport. In 2018, bioMérieux wanted to focus its work on plans to build a digital space on the association's Lyon campus. This dedicated space over 130 m2 is an innovative workspace for young people in the "Job dans la Ville" program and familiarises them with digital technologies. It opened in January 30, 2019 in the presence of Alexandre Mérieux.

in 2014 bioMérieux launched a partnership with the Institut Télémaque whose mission is to support social mobility by sponsoring deserving secondary pupils from modest backgrounds who are eager to succeed in school. For the 2017-2018 school year the Company funded mentoring by bioMérieux employees of young people selected by the Institut Télémaque.

THE "ENTREPRISE DES POSSIBLES":

At the beginning of 2019, Alain Mérieux officially launched the "ENTREPRISE DES POSSIBLES", a highly innovative corporate initiative to encourage companies in the Lyon metropolitan area and their employees to come to the assistance of the homeless and the most vulnerable. bioMérieux, along with other companies, has already responded to this initiative by becoming a founding company of this grouping. The practical arrangements for this commitment are being developed.

COURSE BIKE&RUN:

For two years, bioMérieux has been supporting and taking part in the Bike&Run race held each year on the campus of an educational institution in Lyon. Students from universities and educational institutions take part in this mixed race alongside companies from the Auvergne-Rhône-Alpes region. With student-company pairs competing, its aim was to enable manufacturers to share their values with under-graduates through a sporting event and to meet young talent in a different way.

- bioMérieux is a partner to **universities and educational institutions in France and overseas**, a situation that allows it to strengthen its cooperation with academic research. This initiative is aligned with the Company's human resources policy to attract the talent and scientific profiles bioMérieux will need to address ongoing changes in its occupations.

bioMérieux has had a partnership with **EMLYON Business School** since 2015. Through this agreement, bioMérieux became one of the first companies to join the Global Business Network of major international Corporate partners. Thus it is becoming the expert life sciences partner as part of the I.D.E.A program (Innovation, Design, Entrepreneurship & Arts), a new pedagogical approach implemented by EMLYON to train the innovative entrepreneurs of the future. In the area of research, bioMérieux supports the development of work carried out within the *Institut français de gouvernement des entreprises* (IFGE), the EMLYON research centre and social laboratory dedicated to Corporate governance issues. The partnership also includes the possibility of training for bioMérieux employees to help them enhance their skills, notably in relation to the digital transformation.

bioMérieux is also a founding member of the Fondation Université Grenoble Alpes, established in 2014. Set up in September 2014, the Foundation aims to support high-level research projects and promote equal opportunity. In 2018, the Company confirmed it wanted to extend its term with the Fondation UGA for a further five years.

Since 2015, bioMérieux has also been involved with the Université Grenoble Alpes's Biohealth Computing Program and has thus funded 27 grants for Master Excellence bioHC renamed Master Excellence Health4Life to enable the best students from this discipline to pursue their studies in an international environment. This masters from the Pharmacy Faculty of the Université Grenoble Alpes combines multidisciplinary approaches and is original in that it combines the disciplines of health, computer engineering and maths.

bioMérieux has been a partner of the INSA Lyon Foundation SA since 2010. In 2016, this partnership enabled a group of students from INSA Lyon to take part in the international iGEM(1) competition that took place in Boston in October 2016. On this occasion, they presented a project for the rapid diagnosis of sexually transmissible diseases, for which they won the best diagnostics project award. Every year, the Company also hosts interns from INSA, runs careers days at the school and takes part in its Company Forum.

Long-term partnerships also exist with ESTBB, a school in the Catholic University of Lyon's scientific cluster. Nearly 130 bioMérieux employees are former graduates and the Company welcomes young people as interns or on work-study programs every year. Since 2008 a bioMérieux human resources director has also been part of the school's Development Council – a forum for educational directors to collect professional opinions. In October 2017, bioMérieux renewed its commitment to the school by signing an agreement formalising its partnership over the next three years.

As part of the UNITECH programme, a partnership has been established with a network of 9 European Universities (INSA Lyon (France), Chalmers (Sweden), Trinity College (Dublin), Université d'Aachen, ETH Zûrich, Polytecnico de Milan, TU Delft, Loughborough University, UPC Barcelona). This program enables the Company to be involved in selecting the best engineering students and in their training, with a strong focus on new technologies, and to offer the students study projects or internships and recruit candidates throughout their course.

3.1.4.2 Commitments towards international organisations

bioMérieux works with many international organisations (Bill Clinton Foundation, United Nations, Doctors without Borders, etc.) as part of public health programs for the financing of global health and the development of *in vitro* diagnostic *tests*.

bioMérieux's Chairman and Chief Executive Officer takes part in the Gates-CEO Global Health Roundtable. This collaboration between health industry CEOs and Bill Gates aims to use innovation to address the major public health challenges facing disadvantaged populations. In particular, it seeks to foster initiatives to fight neglected tropical diseases in countries with limited resources.

Moreover, in 2013, bioMérieux formed a partnership with *Santé en entreprise* (SSE), an association of companies whose goal is to promote and implement field programs to fight HIV, malaria and chronic diseases, in particular. SEE operates in France, Africa and the Caribbean, and develops initiatives aimed at employees, their families and the general public.

3.1.4.3 Cultural philanthropy

bioMérieux supports the Museum of Grenoble and the Lyon Museum of Fine Arts, thus securing the acquisition of paintings of considerable historical importance.

For many years, bioMérieux has also supported diverse cultural events, including the Chaise Dieu music festival (Haute-Loire - France), a partnership of over 30 years, the Baroque Music Festival of Lyon (Rhône – France), and the Lumière cinema festival organised in Lyon (France) every year by the Institut Lumière.

3.2 Social consequences

3.2.1 Risks

As described in the chapter, "Risk factors", under section 2.3.2 "Human Resources Management", bioMérieux's success depends in particular on its human resources and its ability to adapt its resources and skills in a complex, changing environment.

Indeed, the Company may mainly be faced with the inability to attract or retain key employees or to anticipate its staff's skills requirements.

Nevertheless, there are other risks assessed as not material for the Company associated with occupational risks and accidents.

3.2.2 Policy, procedures and indicators

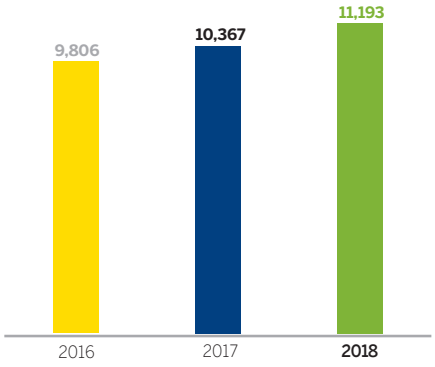
bioMérieux's employees are its most important asset. Around 70% of them are based in France and the United States. Thus, bioMérieux's activities are concentrated in these two countries. They act as reference points for the labour relations policy that bioMérieux strives to apply to all of its employees throughout the world, taking into account local regulations and customs. For example, the same recruitment procedures, pay policies, training policies and annual appraisals apply to all employees worldwide.

The importance of employees is reflected in a labour relations policy which is constantly evolving in order to best accompany employees through the three main phases of their professional careers:

- initial training: approximately 5% of bioMérieux's workforce in France are young people in work-study programs, providing them with their first professional experience. bioMérieux also maintains partnerships with colleges and universities in France's Rhône-Alpes region and funds scholarships;
- professional life: a social dialogue, carried on over several years, has helped create a policy shared by the social partners and illustrated by the establishment of quality employee benefits (mutual health insurance, pensions, profit sharing, organisation of working hours, equal opportunities, integration of people with disabilities, keeping seniors in work). To this is added an active policy of professional training, skills management and talent development;
- retirement: employee savings plans with matching contributions from the Company (PERCO) or with a Time Savings Account (CET), also matched, help employees anticipate and prepare for retirement.

3.2.2.1 Overall change in headcount

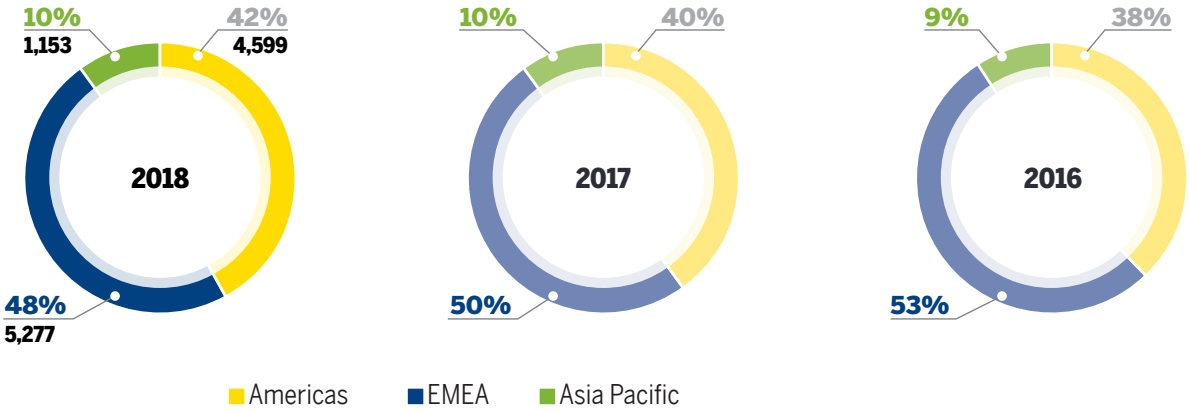
Change in headcount
(employees and temporary workers in FTE)



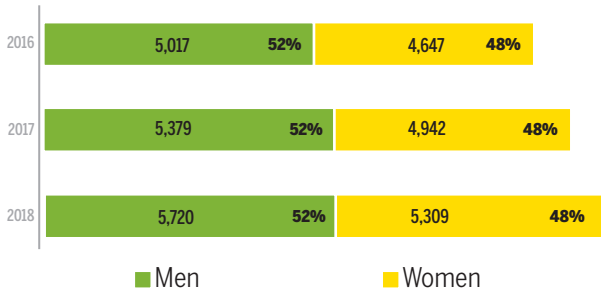
Expressed as employees on the payroll, the workforce comprised 11,029 employees (excluding, temporary employees, interns, international volunteers (VIE)).

The indicators presented below are based on employees on the payroll.

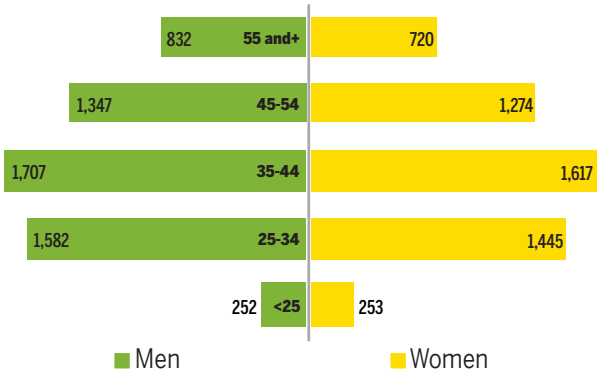
BREAKDOWN BY GEOGRAPHIC AREA (2018)



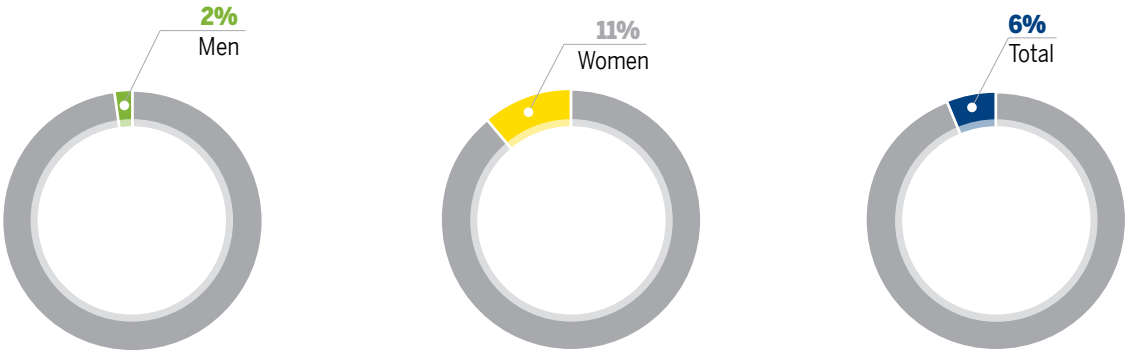
BREAKDOWN BY GENDER



BREAKDOWN BY AGE



BREAKDOWN BY WORKING TIME (PART TIME) 2018



The indicators below show the extent to which the Company's human resources policies affect its ability to attract and retain its employees.

NEW HIRES / DEPARTURES - TURNOVER

New hires = 2,119		Departures = 1,406	
Permanent	1,606	Voluntary	875
Fixed-term contracts	513	Involuntary	531

In 2018, the voluntary turnover rate for employees on permanent contracts was 7.5% and 4.2% for employees with less than three years of seniority (against 7.7% for women and 3.9% in 2017.

ABSENTEEISM

Absenteeism: Value/ theoretical working days	2018[c] No. of days absent	2018[c] Theoretical No. of days	2018[c] %	2017 No. of days absent	2017 Theoretical No. of days	2017 %
AMERICAS	12,564	992,319	1.3%			
ASPAC[a]	3,145	237,753	1.3%	6,137	192,067	3.2%
China	1,756	96,213	1.8%			
EMEA[b]	43,776	1,028,441	4.3%	7,217	211,636	3.4%
France	35,324	776,977	4.5%	32,517	752,644	4.3%

(a) Australia, China, India, Japan, Singapore, South Korea.
(b) Belgium, France, Germany, Italy, Poland, Spain, Turkey, United Kingdom.
(c) From 2018, Astute employees are included, following the acquisition of the company during the year.

3.2.2.2 Human resources policies to engage employees

bioMérieux strives to retain its employees and attract new talent. As such, it must offer them the best and most attractive working conditions In a constantly changing world, and in order to maintain an independent, people-focussed business model, bioMérieux does everything in its power to create a stable working environment that meets the needs of all its employees. In particular, bioMérieux aims to implement a global labour relations policy focussing on good social dialogue in support of ambitious economic performance with respect for local customs and legislation, attractive compensation and opportunities for internal mobility, whilst promoting diversity. Finally bioMérieux is keen to establish close links with universities and educational institutions worldwide in order to identify and attract young talent (see section 3.1.4.1).

Social dialogue

The Company considers that it maintains good social relations with its employees. There is a well-developed tradition of social dialogue with the employee representative bodies, in France but also within its subsidiaries.

As an example, in France, in 2015, an agreement concerning the status of employee representatives and social dialogue was approved unanimously. This agreement outlines the main principles of social dialogue and collective bargaining within the Company, clarifies the procedures for serving in different representative functions, and recognises the acquisition of skills and expertise through union activities.

In 2018, the bioMérieux SA Central Works Council held 11 Information or Consultation Meetings. Depending on the topics on the agenda, members of the Executive Committee attend these meetings which have been a forum for discussing, in particular, the Company's situation, its environment, its financial performance, the Company's five-year strategy, its R&D policy, its industrial strategy, vision, organisation and plans of the Innovation Department, organisational changes, social balance sheet and gender equality report, within the context of implementing the Company-level agreements.

Moreover, the European Works Council, established in 2008, met twice in the course of the year and had the opportunity to discuss the same topics.

Three company-level agreements and one site-level agreement were signed this year:

- a company-level agreement on the organisational structure of customer services which are available 7 days a week, making Saturday a working day. The agreement also sets out the arrangements for implementing this new organisational structure and compensation for employees;
- a company-level agreement on the Mandatory Annual Negotiations on salaries, working conditions and gender equality, which was unanimously signed;
- a company-level agreement on extending the terms of the employee representatives, unanimously signed. These terms were to come to an end in 2018 and were therefore extended to October 31, 2019 so as to be able to set up the new Social and Economic Committee;
- a site-level agreement at a Balme/Saint Vulbas introducing a shift between 4 pm and midnight to deliver to clients on time, unanimously signed.

Finally, an agreement on Quality of Worklife was signed in early 2019.

As a reminder, in 2017, five Company-wide agreements and addenda were signed in France, one site-level agreement in France and one Europe-wide agreement. These seven agreements were signed by all representative unions (CFDT and CGT in the case of France).

Moreover, the organisation of working time took form with new agreements since the introduction of the 35-hour working week. As such, bioMérieux, has always been keen to promote the quality of worklife of its employees and to ensure greater flexibility and a better work-life balance. As an example, flex time, staggered shifts, night shifts and substitution teams on Saturdays and Sundays have been introduced with compensation for the difficulty of these non standard working hours and for travels outside working hours.

The "Health in the workplace" agreement, signed in 2014, aimed at improving the health and welfare of employees at work, pays particular attention to workstations, organisation, night shifts and the prevention of psychosocial risks and harassment, in accordance with the non-discrimination principle. This agreement establishes alternate telecommuting for certain autonomous personnel, which can be applied in a constant manner, or during special events requiring a reduction of commuting between home and work (pregnancy, health rehabilitation after an accident).

The agreement establishes a Central HSWC (Health, Safety and Working Conditions) Committee, which meets twice a year and is headed by a site director and comprises the Employee Relations Manager, Company doctors, the Group Health, Safety and Environment (HSE) Manager and secretaries from the various HSWC Committees. This committee aims to bring all sites in line with best HSE practices, such as on occupational hazard assessment, the single assessment guidelines for occupational hazards (*Document Unique d'Evaluation des Risques Professionnels*, DUERP), and any HSE issue relevant to all sites. The Group's Italian and Spanish companies have their own equivalent of the HSWC Committee.

In 2016, Psychosocial Risks (PSR) were integrated into the DUERP. This project, which involves all employees, trained by working groups in PSR and in the identification of the various stress factors and the different resources provided to overcome these factors, was trialled in 2017 at the La Balme/IDC, Grenoble and Verniolle sites (France) before being rolled out across all other sites in 2018. PSR training, combined with change management training, is provided in parallel to Group managers and employee representatives, including in particular members of the HSWC.

Compensation

At December 31, 2018, total personnel costs (salaries and wages, payroll taxes, discretionary and non-discretionary profit-sharing plans) amounted to €933 million compared to €859 million at December 31, 2017 (see section 6.2.1, Note 20).

bioMérieux's policy provides for compensation in the form of a fixed and bonus salary and, emphasises fringe benefits such as retirement, death and disability insurance and health insurance.

Compensation structure	Compensation (fixed and variable) is set in each country on the basis of local conditions, the Company's results and individual performance. For executives, a worldwide grading of positions makes it possible to compare levels of responsibility and set compensation on the basis of local benchmarks. In order to align staff with bioMérieux values and strategic priorities, Group employees receive variable compensation. Moreover, employees in France, the United States and Global leaders benefit from a variable compensation weighted by indicators linked to the Company's perfomance which are communicated to the market. For example, the compensation of bioMérieux SA employees consists of both a basic compensation (base salary, seniority pay, various bonuses and extra pay) and a variable compensation, which includes the provisions required by law and performance-related bonus, decided unilaterally by the employer. Since 2016, the Company sends all French employees an individualised wage and benefits summary *(Bilan Social Individuel)*.
Employee share ownership	As a result of the Company's initial public offering as well as the introduction of the employee savings plans and several employee share ownership plans for Group employees over the last few years, one in two current employees are bioMérieux shareholders (see section 7.4.3). The Company wanted to reinvergorate this trend. Following a first plan in 2017, a new employee share ownership plan was implemented in 2018 accross all subsidiaries excluding France, the United States , Algeria and Russia. All employees with at least one year of service were given the option of joining this employee share ownership plan, which takes the form of a discount and a matching contribution related to the number of shares purchased. The take-up rate for the 2018 plan was 18% compared with 17% in 2017.
Profit-sharing, incentives and employee savings	bioMérieux SA has a non-discretionary profit-sharing plan calculated on the basis of the legal formula. The profit-sharing plan, from which the bioMérieux SA employees have benefitted since 2013, has been renewed for 2016 to 2018. This agreement was renewed at the beginning of 2019, including an increase in the main profit-sharing plan. An additional profit-sharing element of €1,000 gross will be allocated to each employee equally at the end of the 2018 financial year. The Company wants to closely involve its employees in the fruits of its growth through these different systems and the employee savings plans available to them, particularly in France: an employee savings plan (*Plan d'Epargne Entreprise*, PEE, established in 1987), a Company retirement savings plan (*Plan d'Epargne Retraite Collectif*, PERCO), and an employee shareholding plan. The Company encourages the saving of the collective variable compensation with these two latter plans through a matching contribution. The Company retirement plan (PERCO) benefits from a matching contribution by the Company, which can amount to up to 1.5% of the employee's gross annual compensation. In 2016, bioMérieux matched the contributions of its French employees placed on bioMérieux's Mutual Fund as part of the employee savings plan (PEE). Discretionary profit sharing, including the Corporate social contribution (forfait social), amounted to €21 million compared to €16 million in 2017.
Leave	Most of the subsidiaries worldwide have a policy of awarding more days of leave than the legal minimum and reward their employees with additional days of leave which are linked to length of service.
Supplementary pensions	The Company pays special attention to preparing for its employees' retirement: Article 83 in France, plan 401K in the US and similar mechanisms in other countries. This differentiating aspect is included in the overall compensation package presented to employees on recruitment and is instrumental in attracting talented people.
Supplementary pensions	In order to retain the Company's key people - the Global Leaders and the individuals identified during the Talent Pool process, bioMérieux has for several years been implementing a share grant policy.
On-site catering	The Company offers staff canteens at most of its sites and subsidises the price of meals in some countries. As such, some 75% of employees worldwide are able to have a balanced meal at work, thus preventing certain situations of food insecurity for its employees.

Promotions / internal mobility

With its global presence and diverse range of technology, the Company can offer its employees professional development and internal mobility opportunities. Furthermore, belonging to the Institut Mérieux Group offers options for mobility within the Institute and its subsidiaries. As such, in 2018, 68 employees had the opportunity of working in another entity of the Institut Mérieux Group.

bioMérieux's policy involves promoting internal promotions by offering the required support and training.

NUMBER OF EMPLOYEES WHO WERE PROMOTED DURING THE YEAR

	2018		2017		2016	
Geographic areas	Number of promotions	% of workforce	Number of promotions	% of workforce	Number of promotions	% of workforce
France	303	7.8%	246	6.4%	298	8.1%
EMEA	26	1.9%	26	2.0%	32	2.4%
Americas	307	6.7%	209	5.1%	215	5.8%
Asia-Pacific	33	2.9%	34	3.2%	31	3.3%
TOTAL	**669**	**6.0%**	**515**	**5.0%**	**576**	**6.0%**

Internal mobility is considered one of the key factors in the success of the employment policy. A number of bodies within bioMérieux (HR Committee, strategic planning) address the issue of skills and changing roles over the next three-five years. There are technological factors with the ever greater impact of digital technology, but also economic factors related to the changing customer base or competition.

One of the key challenges for mobility is training (see section 3.2.2.3).

Policy for attracting and retaining young people

bioMérieux is maintaining its commitment to recruiting and training under 28s by offering them the opportunity to volunteer overseas through the International Volunteers in Business program (*Volontariat International en Entreprise*) lasting between 6 and 24 months.

Applicants must be nationals of a country within the European Economic Area. In 2018, 11 candidates gained experience of key functions in bioMérieux subsidiaries such as information systems and marketing as part of the roll-out of new tools around BioFire, Finance or Human Resources. These placements were in the United States (Durham, Saint Louis, Salt Lake City), Asia (Philippines, Singapore) and Europe (Belgium, United Kingdom). In 2018, at the end of their placement, 5 volunteers were hired, 3 in France, 1 in Singapore and 1 in Australia.

In 2019, bioMérieux intends to continue to implement this program and thus give these volunteers the opportunity to join the Group workforce.

Diversity: promoting gender equality and promoting the employment and integration of employees with disabilities

Given that diversity is an undeniable factor in its economic performance, bioMérieux has introduced a policy to educate its employees and managers and to implement specific actions in terms of HR processes and monitor indicators to measure the Company's progress in this area.

Gender equality

bioMérieux's policy is based on "Gender Equality Agreements" that are renegotiated every three years. Through these measures have been introduced with the objective of ensuring equal pay and working conditions. bioMérieux has defined a policy for the Board of Directors and management bodies, described in section 4.2.5.3.

A new agreement was signed unanimously in October 2017 and applies to the years 2018 to 2020. It builds on previous work and focuses on the introduction of tools to monitor performance indicators reviewed by an ad hoc committee. Furthermore, it focuses on training all internal parties to prevent sexist comments and behaviour, with a gender equality training module for managers. Finally, this agreement includes specific provisions for employees undergoing fertility treatment. The Company has a non-discrimination policy whereby only the relevant skills are taken into account when assessing an internal or external application for a management position.

Example of the WoRLD network

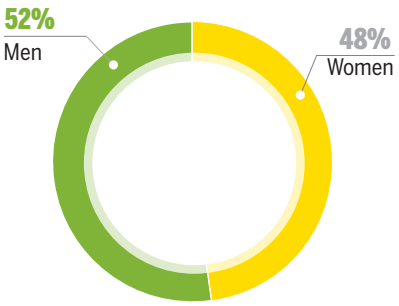
In parallel with the measures taken by the Human Resources department RD and with the support of thee Secretary General, since 2013 bioMérieux's WoRLD network has been working to promote greater diversity in management positions by organising awareness-raising and information-sharing events on the importance of diversity on management teams.

As such, the WoRLD network has established two major partnerships. bioMérieux is a partner of *l'Alliance pour la Mixité en Entreprise*, an association of networks of around fifteen companies operating in the Rhône-Alpes region which aims to bring more women into management positions and advance gender equality. The WoRLD network has also set up a partnership between bioMérieux and JUMP, a social enterprise working with organisations and individuals to eliminate gender inequality at work, create a sustainable economy and more egalitarian company. Through this partnership, in 2018 Mérieux Université hosted the one-day JUMP forum for the third year running. This forum is attended by international stakeholders and forward-thinking experts in the latest trends in gender equality.

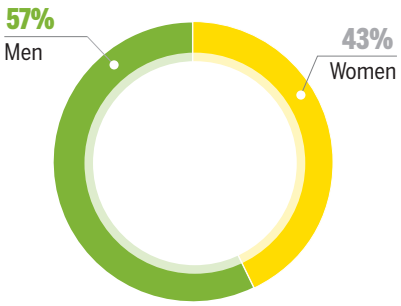
Moreover, the network is about to report back on the mentoring program put in place in 2017 in collaboration with HR departments. This program, open to men and women on a voluntary basis, offers participants the opportunity to benefit from the advice of managers who act as voluntary mentors. To supplement this program, the network also organises networking events which allow participants to meet bioMérieux colleagues and managers who they would not necessarily have the opportunity to meet in the course of their working day, which enables them to extend their personal network within the Company.

Finally, the WoRLD network is preparing to launch an e-learning training initiative aimed at management teams, with the aim of raising awareness of the issue of stereotypes and their impact on gender equality. This training is due to be trialled in 2019 with the aim of rolling it out subsequently based on the feedback.

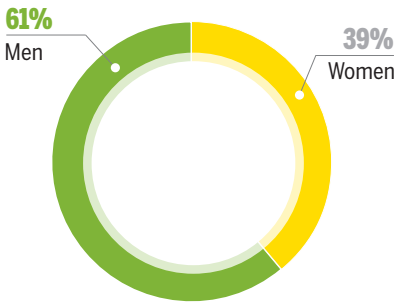
KEY DIVERSITY INDICATORS AT BIOMÉRIEUX



Total Headcount



Managers Headcount



Team Managers Headcount
In France, 43% of team managers are women

In 2018, the Group's policy led to a greater number of women being promoted.

	2018			2017		
	Number of promotions Women	% of promotions of female employees	Number of promotions total	Number of promotions Women	% of promotions of female employees	Number of promotions total
France	166	54.8%	303	137	55.7%	246
EMEA	14	53.8%	26	16	61.5%	26
Americas	146	47.6%	307	80	38.3%	209
Asia-Pacific	19	57.6%	33	17	50.0%	34
TOTAL	**345**	**51.6%**	**669**	**250**	**48.5%**	**515**

Measures taken to promote the employment and integration of employees with disabilities

A Company-level agreement covering all French sites is signed every four years and was renewed in 2017. This agreement contains a direct employment commitment, all types of contracts combined, and a budget to implement the agreement, divided between the various categories according to the actions arising from its implementation.

Through a voluntary contribution in particular, the Company funds, to the tune of €257,000 a policy to hire, integrate and train people with disabilities, and wishes to raise awareness among, and offer training to stakeholders involved in accommodating these people. It also helps to keep people in work through workplace adaptations (around 65% of the budget).

As part of its initiatives developed over many years to support persons with disabilities, "Handibio" days are organised in France. The aim is to raise awareness of disability among employees. As such, 3 one-day events were organised in 2018: "*Tous différents, tous performants*" (All different, all effective) in June and October in Grenoble, and "*Fais de ta vie... un rêve*" "Make your life a dream" in June at Ker Lann.

As part of our Disability agreement and our Corporate Social Responsibility, in 2018 the EMEA Recruitment Department renewed the #HandiBioRecrutement program. The aim of this program is to promote the recruitment of people with disabilities through two actions: on the one hand raising awareness among managers of #HandiBioRecrutement to prepare them for interviewing people with disabilities; on the other hand, a #HandiBioRecrutement day on 22 March at the Campus de l'Etoile with the support of local partners such as Cap' Emploi, *Groupements d'Employeurs Travailleurs Handicapés* (Associations of Young Workers with Disabilities - GETH) and the region's schools. This recruitment day resulted in a pool of candidates as well as offers of jobs, traineeships and work placements. Close contacts were made with various schools to recruit young people with disabilities.

In France bioMérieux's policy in this area is helping to increase the proportion of employees with disabilities as stated in the Mandatory employment of disabled persons declaration (*déclaration obligatoire d'emploi des travailleurs handicapés* - DOETH). In 2018 the percentage of employees with disabilities stands at 5.96% compared with 5.84% in 2017.

As part of its CSR, bioMérieux is also working with businesses in the sector to enable people with disabilities to gain employment in an adapted environment.

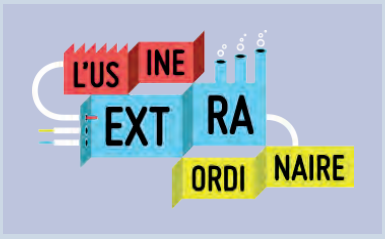
BREAKDOWN OF EMPLOYEES WITH DISABILITIES

Geographic areas	% employees with disabilities/2018 workforce	% employees with disabilities/2017 workforce
France	4.5%	3.7%
EMEA	1.1%	1.2%
Americas	2.1%	2.5%
Asia-Pacific	0.2%	0.2%

Other initiatives to boost bioMérieux's appeal and employee engagement

bioMérieux organises initiatives and events that bring employees together and offers them innovative services. This approach contributes to employee well-being by helping to open up organisations and promote partnerships between teams. The table below sets out the highlights in 2018.

iDay Idea Tank	A day for everyone to share their ideas. On 8 February bioMérieux held a one-day interactive event to allow every employee worldwide to post their ideas and "like" those of others based on 5 main themes: making bioMérieux the most attractive employer, working better together, being happy at work, simplifying our day-to-day work, learning and revealing one's potential. Almost 19,000 ideas collected, over 113,000 likes and 73% participation. The idea with the most backing: introducing a global collaborative platform to exchange homes, learn a new language or enable the children of employees to do the same. This initiative was introduced in July 2018 through the "Enjoy & Share" platform. Enjoy-and-Share.com
Service desk	At the Craponne, Marcy l'Etoile and Campus de l'Etoile sites, where around 25% of French staff work, bioMérieux has opened a service desk enabling employees to save time during their working days. This desk is funded by the Company. Access to the service is free for each employee who pays their own orders on the basis of a preferential price list. Number of registrations: 742 registrations at December 31, 2018. Breakdown of registrations: 70% women and 30% men. Breakdown of registrations by site: Marcy: 342 people, i.e. 46%; Campus: 225 people, i.e. 30%; Craponne: 176 people, i.e. 24%.
Summer day	Between June and July 2018 a summer fair was held at each of the French sites, enabling employees to get together and have fun.
Local organic market	At certain sites, bioMérieux offers its employees access to a farmers market promoting organic, environmentally friendly agriculture.
Family Days	bioMérieux sites regularly organise events for employees and their families. In 2018, these events took place in the United States, China and Belgium in particular.
Free flu vaccinations.	These are offered to employees on sites in France, the US and Asia-Pacific in particular.
Community action by employees	Cooking for the Ronald McDonald Foundation (Germany and the United States): bioMérieux employees help out by cooking for the Ronald McDonald Houses in Tübingen and St Louis several times a year. Renovation of a school (Turkey) Protecting animals (Poland): as a team-building activity, employees built kennels for an animal shelter charity. Recreational therapy for sick children (Italy): bioMérieux Italy decided to support Dynamo Camp, in response to an idea put forward on the iDay. Dynamo Camp, the first free recreational therapy camp in Italy, is aimed at children who are sick, undergoing treatment or in the post-hospitalisation stage. Cupcake Day for Alzheimers (United Kingdom): employees of the UK subsidiary organised a day to fundraise for the *Alzheimer's Society*. Opération Thermos (Belgium): preparing and distributing meals for over 100 people at the Botanique metro station in Brussels.



Furthermore, bioMérieux took part in the *"L'usine extraordinaire"* event organised at the Grand Palais by Fondation Usine Extraordinaire under the aegis of the Fondation Agir Contre l'Exclusion, with the aim of presenting its industrial activities to the general public and particularly younger generations. Almost 100 representative of bioMérieux's sites in France attended this event to present their commitment to tackling infectious diseases worldwide, their roles and their expertise.

All of these initiatives led to employees at the Marcy L'Etoile site being awarded the HR Initiative by l'Usine Nouvelle at its Trophées Usine 2018 awards. bioMérieux demonstrated its ability to mobilise its employees behind its quest for productivity and received the *"Trophée Usine 2018 - Initiative RH"* award for the best industrial strategy involving and valuing its employees.

bioMérieux also received an award at France's most attractive employers awards organised by Randstad. It won third place in 2018, one place higher than the previous year. This award recognises work to promote an ambitious mobility and training policy and develop internal initiatives to benefit work-life balance. It also illustrates the success of current actions in strengthening the Company's brand as an employer.

Conference with Thomas Pesquet

in 2018, bioMérieux was pleased to host Thomas Pesquet, the Proxima mission astronaut, for a conference on lessons learned from the Aquapad experiment, which is the fruit of the collaboration between the French Centre for Space Studies (CNES) and bioMérieux. Aquapad is a dry microbiology technology patented by bioMérieux. It was used by Thomas Pesquet during his mission on board the International Space Station (ISS) in order to test the microbiological quality of astronauts' drinking water. On the strength of promising results, Aquapad is seen as the system that will be used systematically in future aboard the ISS and exploration vehicles.

3.2.2.3 Skills management policy

Career and performance management

For a number of years, the Executive Committee and HR have been coordinating the Talent Pool & Succession Plan process in order to identify, develop and retain talent. In 2018, more than 98% of talent stayed with the company, a total of 198 identified. Identifying these high-potential employees allows succession plans to be developed for key posts, as identified during the Strategic Workforce Planning process. In collaboration with Mérieux Université, the Company has designed specific programs and courses to support their development and induction.

Based on the 5-year strategic plan, the Regions draw up their own forward-looking skills management agreements, taking into account the Group's priorities and their own specificities. The main strands for 2018 and the coming years include:

- Customer Relationship Management, supply chain, relationships with clinicians/doctors etc.responding to changing markets, technologies and digitalisation;
- improving management practices with the introduction of the *Leadership Competence Model*, and the intercultural approach.

The training plans drawn up in the countries in Corporate these themes as priorities for development and underpin the Company's major plans for transformation.

Professional development is a strategic and social concern for bioMérieux. It helps to support employees throughout their career. It is built on a relationship of trust and dialogue between employees and managers.

All Group employees take part in a specific Performance Management Process (PMP). This is made up of a tool to assess employees' performance over the past year (job proficiency and objectives met) as well as a development tool (employees' individual needs and aspirations are identified); and any action required to increase collective and individual performance is taken.

Training

bioMérieux's response to the development requirements of its employees is based on two pillars, on the one hand Mérieux Université, the Company's university which trains the Group's employees; and on the other hand a regional organisation to be close to local and regional requirements.

Mérieux Université's range of courses is rolled out across 4 regional hubs in France, the United States, China and Brazil and includes:

- courses for managers aimed at embedding a shared management culture across the entities of the Institut Mérieux Group:
  - a Manager and Leadership Essentials course is offered to all managers in the Group. In 2018, this program represented 11,160 hours of training and 960 managers trained,
  - the New Leader Induction program, started in 2015, allows participants to familiarise themselves with the Group's challenges and instils in them a shared management culture. The program was undertaken by 32 people in 2018,
  - the Fit for the Future program which is aimed at developing individuals identified as showing leadership potential also took place for the fourth time in December 2018, and was followed by 19 people;
- specific training courses to adapt the skills of each of the Company's business lines as major transformations affect them. These courses are designed in collaboration with the relevant department heads. As of 2018, 10 "Core" courses exist, including Finance, Marketing, Sales, Manufacturing, Supply Chain, Project Management, R&D process . In 2018, this training represented 38,598 hours;
- moreover, Mérieux Université offers coaching and team-building services.

Product training remains a key factor in responding effectively to the requirements of bioMérieux's clients. In 2018, this training represented 67,634 hours.

The new training platform rolled out in April 2017 and under constant development, enables each employee to consult the full range of bioMérieux's courses centrally, irrespective of the learning format (classroom-based, *e*-learning, blended learning, video etc.). The platform is accelerating the digitalisation of learning worldwide and responding to the new skill requirements of a wide audience such as adapting to new IT tools, new regulations or new working methods such as collaborative working. Training programs provided through e-learning represent 70% of training actions and 9% by number of hours.

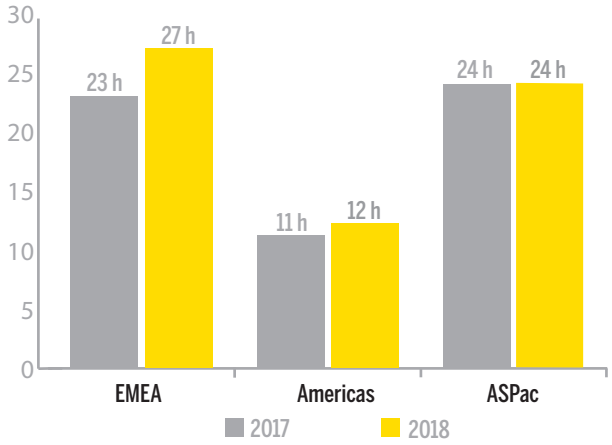
In 2018, employees underwent an average of more than 20 hours of training per person;

TRAINING HOURS FOR MÉRIEUX UNIVERSITY'S MAIN PROGRAMS

Indicators	2018	2017	2016
Number of training hours in the Manager & Leadership Essentials program	11,160	12,761	16,001
Number of training hours in quality	14,899	5,553	11,160
Number of training hours in sales/marketing	9,613	15,666	9,152
Number of training hours in the Ethics and Compliance program	10,413	7,215	14,174
Average number of training hours per employee in France	24	23	23
Average number of training hours per employee in the United States	11	10	11
Average number of training hours per employee in China	37	43	48
Number of training hours in the Products program	67,634	43,195	66,350

In 2018, employees underwent an average of more than 20 hours of training per person and total training hours amounted to 224,600 hours.

AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE AND BY GEOGRAPHIC AREA



3.2.2.4 Policy on occupational hazards and accidents

Health and Safety Policy and organisation

The Health and Safety initiative is part of a global Health, Safety and Environment (HSE) policy signed by the Company's General Management, which covers all activities of the product's value chain: sites, subsidiaries and activities managed by the Corporate department.

The HSE Department operates at Group level, in order to develop a harmonised and proactive approach aimed at preventing risks to individuals, property and the environment. This department reports to the Manufacturing & Supply Chain Director, a member of the Company's Executive Committee. The guidelines and the policy are discussed at quarterly HSE Committees, involving the Secretary General, the Manufacturing & Supply Chain Director and the Chief Executive Officer.

A network of HSE facilitators is in place at each site and subsidiary:

- for each site, an HSE manager reports to the site manager. This function can be supplemented by other people (HSE engineers, HSE technicians) depending on the site's size and risks;
- for each subsidiary, an HSE representative is appointed and is in charge of managing the process.

An HSE management system is in place within each site; it is based on continuous improvement by following the PDCA principle (Plan-*Do-Check-Act*). At the end of 2018, 9 sites had OHSAS 18001 certification (Marcy l'Etoile, Craponne, La Balme, Saint-Vulbas, Tres Cantos, Florence, Combourg, Grenoble and Verniolle).

2020 Objective: OHSAS 18001 certification for the main industrial sites.

Assessment, prevention and control of occupational hazards

The Company measures its rate of occupational accidents and occupational diseases across all its activities. These events are taken into account in order to prioritise areas for improvement over time and reduce the number of incidents.

2020 Objective: 30% reduction in frequency rate of lost-time occupational accidents, i.e. a rate of 1.3 or under.

bioMérieux has a "toolbox" for managing health and safety at work which inCorporates a number of processes and tools rolled out worldwide, such as:

- a reporting tool for hazardous situations and suggestions for improvements (about 5,000 cases reported annually by all employees);
- inspections and audits of activities to verify the adequacy of preventive measures;
- campaigns to raise awareness of the various risks, under the banner "Proud to be a daily hero" (falling in the stairs, falling on slippery surfaces, slip and fall accidents);
- bioMérieux is rolling out a program of specific courses;
- each new arrival is given HSE training appropriate to the site and their activities;
  - all employees with a specific activity must take the relevant accreditation courses (electrics, forklift operators, hot work, working at height);

- some employees take the HSE and ISO 14001 / OHSAS 18001 internal auditor training;
- other training may be provided on a case-by-case basis (transporting hazardous goods, biohazards, chemical hazards, good practice in movement and postures, fire safety officers, first aid officers).

In 2018, bioMérieux launched an online driving course across all of its sites and subsidiaries. This course is taken by around 2,000 employees worldwide. The aim of this course is to raise awareness among employees and improve their perception of road risk. Every month, employees log in and take a module that lasts a few minutes and is tailored to the conditions of the country where they are based, on a driving-related theme.

Well-being at work and promotion of healthy living

The Company integrates the prevention of psychosocial risks for its employees into its occupational hazards assessment process, and benefits, mainly in Europe, from many experiences and actions in their prevention and analysis. In France, for example, an agreement on occupational health has been signed with union representatives (see section 2.2.2).

In addition to the prevention of risks related to professional activities, the Company also takes into account the health of its employees:

- all Group employees benefit from health insurance coverage (public, private, or both);
- the sites promote sporting activity through the provision of sporting facilities or subsidies for subscriptions to gyms;
- the Company covers the cost of a seasonal influenza vaccination for its employees on most sites;
- the Company has rolled out a healthcare and health education pilot program at its North American sites, in the form of health days. These initiatives are deployed mainly through a medical centre dedicated to employees and their families in St. Louis. In this way, employees who so wish benefit from medical check-ups, early cancer screening and medical or nutritional advice given by professionals. The confidentiality of medical data is strictly observed and the Company does not have access to personal data;
- the St. Louis and Durham sites have introduced initiatives to raise awareness among employees and their families of top public health priorities (Health Center and RealAppeal programs). The bioMérieux Live Well Centre offers the site's 800 employees and their family primary healthcare services. Furthermore, a digital weight-loss program, Real Appeal, is offered to employees;
- in the United States, paternity and maternity leave have been extended to 2 and 12 weeks respectively.

The Company has organised a series of conferences on the theme of psychosocial risks at a number of sites in France. These lectures, led by a specialised teacher-trainer doctor, are part of a reflection on prevention and the improvement of the quality of life of employees. Moreover, internal training provision has been extended with a new one-day module entitled, "How to avoid burnout and to keep an eye on your employees" aimed at department heads. Moreover, a program for assessing PSRs is in the process of being rolled out. It is in 5 stages: creating a PSR Steering Committee, circulating a questionnaire to all employees, analysing, interpreting and reporting results, employee participation in targeted working groups on identified themes and developing and implementing an action plan.

Occupational Health and Safety performance indicators

Occupational *accidents* are reported and analysed each month by the Executive Committee and the information is disseminated throughout the Company.

Safety indicators[1]	2018	2017[2]	2016[2]
Number of fatal occupational accidents	0	0	1
Number of lost-time occupational accidents	40	52	37
Number of occupational accidents without lost time	39	28	60
Number of days lost	815	1,275	784
Frequency rate of lost-time occupational accidents	2.0	2.8	2.1
Frequency rate of total reportable occupational accidents	4.0	4.34	5.5
Severity rate	0.04	0.07	0.04
Number of occupational diseases	11	7	2
Number of reportable commuting accidents with or without lost time	22	24	15
Frequency rate of total reportable commuting accidents	1.1	1.3	0.8

(1) Refer to section 3.7 for the organisational scope covered.
(2) data modified following the decision of the local authorities to confirm the occupational accident status of the cases initially declared.

The number of training hours dedicated to HSE courses was 12,645 in 2018 compared with 9,749 in 2017.

3.3 Environmental consequences

3.3.1 Risks

As described in the Chapter "Risk factors", under section 2.5.6 "Industrial and environmental risks" and section 2.5.1, "Regulatory environment applicable to products", bioMérieux is exposed to environmental risks related to its operations. These risks are mainly related to legal and regulatory changes that may have an impact on the Company's operating income and financial position.

Furthermore, bioMérieux is faced with risks associated with climate change which are currently not considered to be material in terms of the risk map drawn up by the Company (as described in the methodology of the chapter "Risk factors"). These risks are essentially either physical or transitional in nature. Physical risks are the result of damages directly caused by meteorological and climate phenomena which are the consequences of a changing climate system. Transition risks are the result of adjustments made to transition towards a low-carbon economy (particularly those intended to limit GHG emissions) in particular where such adjustments are poorly planned or occur suddenly. bioMérieux has put in place a policy aimed at limiting its GHG emissions in particular. Thus, climate change may result in the discontinuation of activity on bioMérieux sites with negative consequences for its financial position and ability to meet its objectives. Nevertheless, the Company accounts for these risks in its risk analysis and management system by integrating them into the business continuity plans for each of its sites as described in section 2.3.3 "Industrial implantation policy".

Moreover, in order to respond to climate risk and protect its employees, emergency shelters exist on the American sites that are exposed to so-called extreme climate events.

The Company has no other provisions or coverage for environmental risks (see section 2.5.1).

3.3.2 Policy and procedures

With a view to managing this risk and minimising its environmental footprint, bioMérieux assesses its impacts on the environment (soil, water, air, noise, smells, energy, waste etc). The Company's initiatives are part of a circular economy approach based on non-wasteful and responsible use of natural resources and primary raw materials.

Environmental management is based on the principle of continuous improvement and includes planning environmental objectives, rolling out an action plan, an organisation empowering employee responsibility, the system of monitoring and measuring (indicators, inspections, audits) and the reviewing the achievement of objectives.

bioMérieux has introduced an Environmental, Health and Safety Management System. It covers the design, manufacture and maintenance of instruments and software, the design and manufacture of reagents enabling *in vitro* diagnosis, on bio-industrial sites, R&D centres and subsidiaries worldwide. This management system has been rolled out within each site and is based on continuous improvement following the PDCA principle (Plan-Do-Check-Act).

In accordance with this policy, bioMérieux has set out its ambitions in the "Vision 2020 Health, safety and the Environment" program. In environmental terms the targets are as follows:

- improve performance [(1)]: 20% reduction in energy consumption, 25% reduction in waste produced, 20% reduction in water consumption, compared with 2015. In 2018, the Company decided to set a target to reduce greenhouse gas emissions (scope 1 and 2) by 20%. Moreover, the Company is working towards ISO 14001 certification for all of its industrial sites;
- assessing the environmental impact of products and the materials associated with them at every stage of their life cycle, in order to take into account current best practice and to support an ambitious improvement plan;
- expanding the commitment to subsidiaries and sites, as well as to Group employees in order to ensure the program's success;
- introducing bioMérieux's HSE standards into its relationship with suppliers and supporting its implementation among logistics providers;

putting in place tools for employees to gather information, suggest improvements and efficiently implement the HSE policy (see section 3.2.2.4).

- As part of rolling out this policy, the Company offers a number of training courses on environmental protection:
- on the arrival of every new employee;
- in the context of the deployment of the environmental management system on the sites in accordance with ISO 14001: raising awareness of environmental impacts and good prevention practices, and training in internal environmental auditing;
- as part of projects to reduce waste and energy consumption: ad hoc training in the relevant functions (production operators, packaging teams) to reduce unwarranted product scrap (see section 3.3.3.3);
- in 2018, bioMérieux launched a campaign to raise awareness among employees of good environmental practice.

The Health, Safety and the Environment Department (HSE), supports and monitors the implementation of the environmental policy (see section 3.3.) It is approved and overseen by the Health, Safety and Environment Committee (HSE). Its implementation is the responsibility of each entity which is responsible for ensuring that the environmental consequences of bioMérieux's activities are managed.

(1) Reference year: 2015.

The HSE Department also monitors all regulatory requirements in this area (at the international, national and local levels) and develops and implements processes and procedures to guarantee their compliance. In particular, it monitors and ensures compliance with specific regulations concerning hazardous substances (REACH, Biocides, GHS, CLP and ROHS regulations). The HSE Department also participates in risk management at the production and the supply chain level. The procedures and processes are devised and implemented in order to identify major production risks and to manage them through business continuity plans.

In case of new investment projects (extensions, new sites, increase in production capacity, etc.), a preliminary analysis of environmental impact is conducted. For new constructions, detailed guidelines are provided in the document entitled "HSE requirements for new constructions and major renovations".

3.3.3 Initiatives developed and results of policies

3.3.3.1 Certifications

At the end of 2018, 9 sites had ISO 14001:2015 certification (Marcy l'Etoile, Craponne, La Balme, Saint-Vulbas, Tres Cantos, Florence, Combourg, Grenoble and Verniolle). Two commercial subsidiaries also have ISO 14001 certification (bioMérieux Spain and bioMérieux Italy).

3.3.3.2 Greenhouse gas emissions

The Company has carried out Group-wide annual assessments of greenhouse gas emissions since 2013. Its international transport and logistics contracts contain requirements on greenhouse gas emissions generated by the services provided by its contractors, as well as recommendations to reduce their environmental impact. Since 2017, it has been involved in the CDP (Carbon Disclosure Project) and uses the results to structure its approach to climate change.

2020 Objective: 20% reduction in the intensity of direct greenhouse gas emissions (Scope 1) and those from energy purchases (Scope 2) compared to 2015.

As part of the HSE policy and vision, bioMérieux has introduced initiatives to reduce its carbon footprint.

Commuting: bioMérieux promotes car-pooling and the use of public transport wherever possible, by paying subsidies to employees. The Marcy l'Etoile and Craponne (France) sites have been members of the Greater Lyon regional carpooling platform for several years. Similar arrangements are in place in the Company's other sites and subsidiaries.

For a number of years the Company has had a remote working policy which helps to reduce commuting.

Business Travel: the Company is pursuing an active policy of reducing and optimising travel; it has been deploying inter-site "telepresence" infrastructure allowing meetings to be conducted *via* video conference in conditions similar to those of actual meetings. Since end-2016 the main sites have been equipped.

Car fleet: employees with a company car are offered a range of hybrid vehicles. Furthermore, since 2018, the Company has been promoting this range by awarding an additional budget.

Remote maintenance and updating of instruments: The development of the VILINK™ IT solution, enabling bioMérieux customers to benefit from remote interventions for incident resolution as well as for maintenance and updates, continued in 2018. Thanks to a fast and secure connection, this solution helps limit travel by engineers in the field and increases the speed of problem solving for customers.

Carbon offsetting: since October 2018, bioMérieux, in partnership with its natural gas supplier in France, has been offsetting all emissions related to the consumption of this energy. As such bioMérieux is funding projects to reduce CO_2 emissions in developing countries.

Introduction of multi-modal transport: the Company has committed to increasing sea freight to 20% by 2020. bioMérieux is also working with its carriers to study multi-modal forms of transportation such the train. In September 2018, thirty units of equipment were transported by train from our distribution centre in France to Mongolia. This mode of transportation enabled us to reduce the CO_2 emissions issued compared with air freight.

The emissions categories assessed include Scopes 1, 2 and 3 of the GreenHouse *Gas* (GHG) Protocol, as described in section 3.7. The assessment, conducted every year, covers the consolidated data from the previous year (for example, 2017 covers the 2016 data).

The significant GHG emissions, over a scope extended to all of the Company's value chain, mainly consist of:

Scope	Significant emissions categories	Emissions in tCO2e (± uncertainty)	Emissions 2017 in tCO2e (± uncertainty)	Emissions 2016 in tCO2e (± uncertainty)
Scope 1	Direct emissions (Scope 1)	32,127 (±5%)	30,069 (±5%)	29,326 (±5%)
Scope 2	Energy purchases (Scope 2)	45,880 (±7%)	45,564 (±7%)	47,126 (±7%)
Scope 3	Commuting	17,490 (±8%)	17,435 (±8%)	16,624 (±8%)
	Business travel	26,603 (±15%)	19,707 (±15%)	10,470 (±15%)
	Downstream transport and distribution of goods	98,203 (±30%)	110,778 (±30%)	82,260 (±30%)
	Waste generated from operations	3,618 (±35%)	3,889 (±35%)	2,498 (±35%)
	Product use	31,034 (±55%)	26,289 (±55%)	27,557 (±55%)
	End of product life	63 (±31%)	57 (±31%)	55 (±31%)
	Purchase of goods and products	Not measured*	Not measured*	Not measured*
	Fixed assets	Not measured*	Not measured*	Not measured*

* *Under evaluation.*

3.3.3.3 Waste management

The Company is committed to optimising waste management, sorting waste at source and developing channels to recover and recycle materials and energy. As far as hazardous waste is concerned, the Company has implemented a strict policy of sorting at source and disposal by companies licensed to process such waste in an appropriate manner. All of the Company's sites have waste storage facilities.

2020 target: 25% reduction in waste generation compared to 2015.

As part of its continuous improvement, bioMérieux has introduced initiatives to improve its waste management.

Waste reduction: the Company strives to optimise the quantity of materials used for packaging. For example, the switch from printed to electronic format for instruction notices for reagents has made it possible to reduce the size of secondary packaging.

Waste recovery: the Company is striving to increase the proportion of recycled, composted, regenerated or incinerated waste from which energy can be recovered. The Marcy l'Etoile, Grenoble, Combourg, La Balme and Saint-Vulbas sites in France, and the subsidiaries in the United Kingdom and Germany are all "zero-landfill" sites. Furthermore, organic waste at the Corporate restaurants in Marcy l'Etoile, Durham, Craponne and La Balme is sorted and sent to a composting facility.

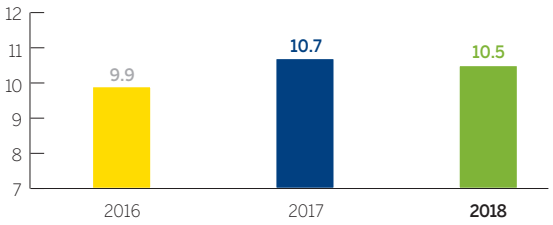
Sorting and recycling guides are available to employees. The Company raises awareness among employees of best waste management practices at events such as the National Sustainable Development Week in France.

Food waste: the Company contracts with a food services provider for the management of its Corporate restaurants, in particular for its sites in La Balme, Craponne and Marcy l'Etoile (France). As part of the fight against food waste, bioMérieux and its subcontractor periodically undertake an analysis of thrown-out food in order to assess its origins 3 and reduce the phenomenon.

GROSS INDICATORS

TOTAL AMOUNT OF WASTE GENERATED

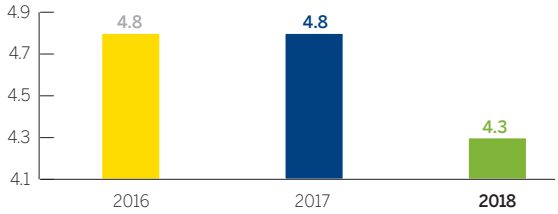
Waste.
Estimate in thousands of metric tons.



INDICATORS IN RELATION TO SALES IN €

TOTAL AMOUNT OF WASTE GENERATED

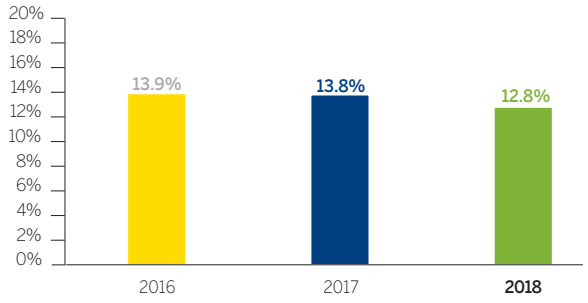
Waste in relation to sales.
metric tons per million euros of sales.



GROSS INDICATORS

OF WHICH HAZARDOUS WASTE

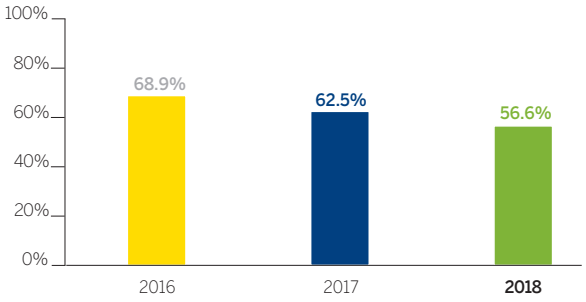
Percentage of hazardous waste.
estimate in pourcent.



GROSS INDICATORS

PERCENTAGE OF RECYCLED OR INCINERATED WASTE WITH ENERGY RECOVERY OR COMPOSTED

Percentage of recycled waste or incinerated waste
with energy recovery or composted.



3.3.3.4 Water management

Water is used by the Company in formulating its products. Water is also used in refrigerating facilities, such as cold storage rooms, in controlled atmosphere areas and as a coolant in the manufacturing process. For this type of use, the Company prioritises closed-circuit systems.

2020 target: 20% reduction in water consumption compared to 2015.

bioMérieux uses the local water supply for the water needs of its manufacturing sites. bioMérieux does not directly extract water from the natural environment, except for the cooling requirements of its logistics platform located in Saint-Vulbas (France). At this site, a heat exchanger makes it possible to use the temperature difference with the local groundwater for cooling purposes. Water extracted from the groundwater is discharged after heat exchange, and has no direct contact with process water. Official authorisation is required to use the groundwater in this way.

The Company is not subject to any specific local restrictions on water supply on a permanent basis. As regards possible seasonal restrictions, bioMérieux strives to comply with specific guidelines issued by local authorities in the event of drought (for example, limiting water use for lawn care).

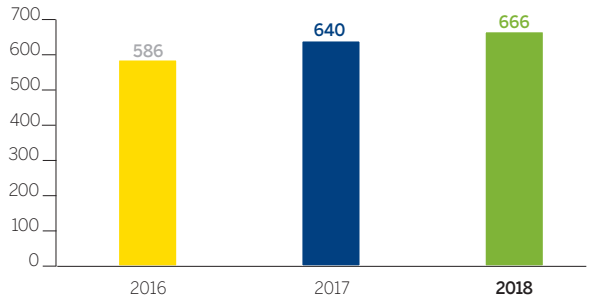
Water consumption is monitored on a regular basis, and steps are taken to reduce it.

GROSS INDICATORS

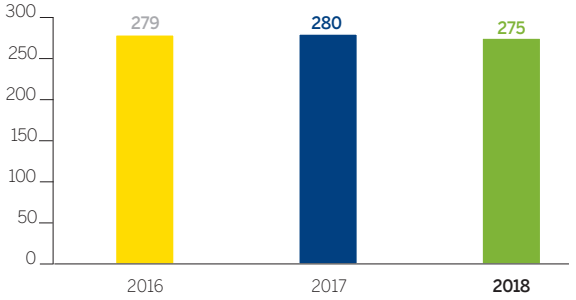
INDICATORS IN RELATION TO SALES IN €

CONSUMPTION OF PUBLIC WATER

Water consumption from pubic supply.
estimate in thousands of cubic meters.

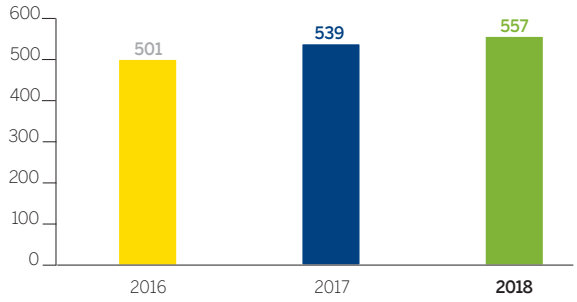


Water consumption from public supply in relation to sales.
cubic meters per million euros of sales.

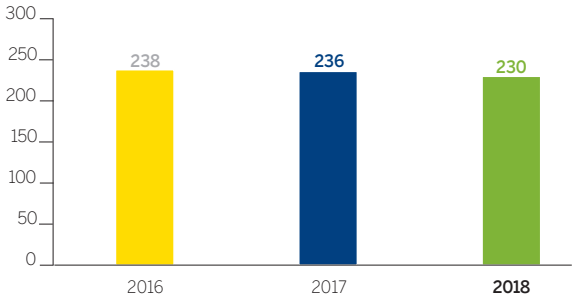


WASTEWATER DISCHARGED

Wastewater discharged.
Estimate in thousands of cubic meters.

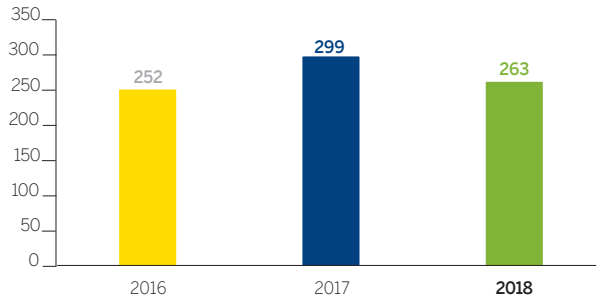


Wastewater discharged in relation to sales.
cubic meters per million euros of sales.

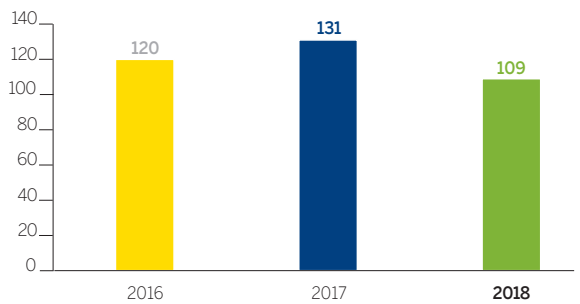


USE OF GROUNDWATER

Water from aquifer used.
estimate in thousands of cubic meters.



Water from aquifer used in relation to sales.
cubic meters per million euros of sales.



3.3.3.5 Energy management

In order to improve energy efficiency, the Company implements an energy optimisation and saving program. Prior to constructing or refurbishing buildings, simulations are performed to measure their energy efficiency (*e.g.*: lighting, heating, ventilation and summer climate control). Efforts are made to find ways of reducing energy consumption to a low or very low level through systems that are researched, promoted and gradually applied.

2020 target: 20% reduction in energy intensity compared to 2015.

Renewable energy: even where no target has been set, the Company promotes the use of renewable resources for its energy supply, in areas of the world that offer acceptable alternatives:

- since January 1, 2018, all of bioMérieux's French sites have received 50% of their electricity supply from certified "green" sources;
- the Company's Swiss, Austrian, Brazilian and Canadian subsidiaries only use hydropower and the Colombian subsidiary uses hydropower for 90% of its needs.

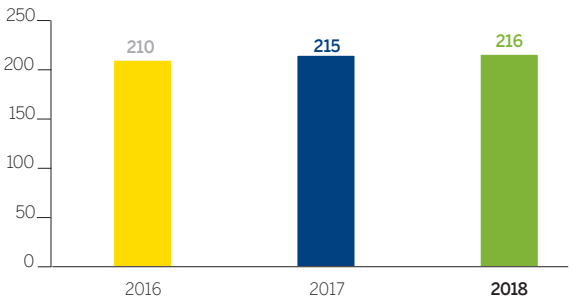
New eco-construction standards: the new buildings for tertiary activities of significant size are subject to HQE (La Balme), LEED (St. Louis) or BREEAM (Marcy l'Etoile) environmental certification.

Energy audits: audits were carried out on the Durham and St Louis sites in 2018, in addition to the 7 audits conducted since 2015. These audits are used as a starting point for an energy management system.

GROSS INDICATORS

TOTAL ENERGY CONSUMPTION

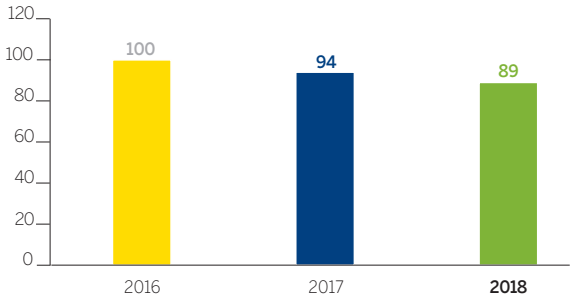
Total energy consumption.
In GWh.



INDICATORS IN RELATION TO SALES IN €

TOTAL ENERGY CONSUMPTION

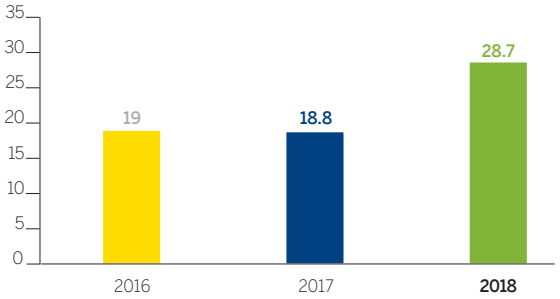
Total energy consumption in relation to sales.
MWh per million euros of sales.



GROSS INDICATORS

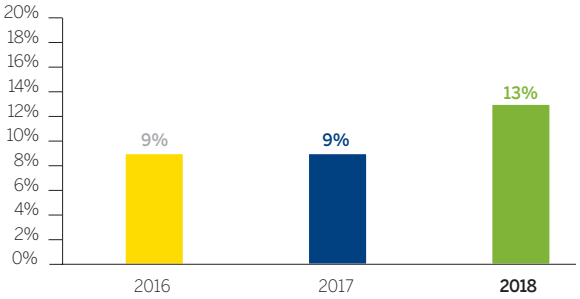
CONSUMPTION OF ENERGY FROM RENEWABLE SOURCES

Consumption of energy from renewable sources.
In GWh.



PERCENTAGE OF CONSUMPTION OF ENERGY FROM RENEWABLE SOURCES

Percentage of consumption of energy from renewable sources.



3.3.3.6 Eco-design of products

Eco-design involves incorporating environmental criteria from the product (or service) design stage. The aim is to reduce its impact and increase its performance throughout its life-cycle. This approach balances environmental, technical, economic and social requirements.

The product life-cycle refers to all the stages necessary for its production (extraction of raw materials, transport, processing, manufacture of materials and parts, product manufacture), its distribution, its use and end of life. Performance evaluation must be based on a multi-criteria approach and cover the categories of damages that are the most representative of the product or service under evaluation (health, climate change, resources and ecosystems). bioMérieux's aim is to determine the relevant criteria to inCorporate at each of the stages of the life-cycle of its products in order to support its ambitious improvement plan.

To this end, in 2019 an environmental effect analysis will be carried out when developing new products. This qualitative pre-diagnosis will be used to identify the main levers for improving the product from the design stage, covering the whole value chain. The identification of strengths and weaknesses and the main recommendations can then be used for other products.

A more in-depth quantitative diagnosis is in the pipeline. It would allow the categories with the biggest impacts to be identified and an Eco-Design roadmap to be created to enhance the environmental performance of bioMérieux's products.

bioMérieux has launched an assessment of the business lines covering the life-cycle of its products. The aim is to record existing good practice in order to mainstream it where appropriate.

bioMérieux is continuing its action plan with its raw materials suppliers to ensure compliance with REACH (Registration, Evaluation, Authorization, restriction of Chemicals) regulations and BPR (Biocidal Product regulation), and to anticipate potential future regulatory obligations.

3.3.3.7 Other initiatives

Pollution prevention

Discharges into water

- Tests are carried out regularly on the Company's biggest production sites, based on several parameters. The Craponne and Marcy l'Etoile sites in France have invested in facilities to neutralise their wastewater on site before discharging it into the network feeding the municipal treatment plants to which they are connected. This aims to improve water quality and ensure compliance with the parameters set in their discharge agreements.
- In connection with its contribution to the fight against antimicrobial resistance, bioMérieux has implemented measures at its industrial sites to collect at source and eliminate, through specialised channels, preparations containing antibiotics used in manufacturing or R&D.
- The Marcy l'Etoile site was monitored for mercury discharges by the French national program for the reduction of hazardous substances in water (RSDE). In 2015 a supplementary order from the local Prefect validated the effectiveness of the measures taken by bioMérieux to eliminate mercury in its discharges and ended the monitoring in place.

Discharges into the soil

- The Company's sites are equipped with systems designed to retain or confine fire-water runoff in order to prevent discharge into the natural environment.

Discharges into the air (1)

- The Company does not have any facilities that discharge significant levels of emissions into the air and therefore does not collect consolidated data on air emission indicators. SO2 and NOx emissions relating to the operation of boilers are monitored at each site in accordance with the applicable regulations.

Paper management

Initiatives are being implemented across all of the Company's sites and subsidiaries to reduce paper consumption, including incentives for greener printing practices.

- A new printing solution resulting in improved management of paper consumption was rolled out across the Company.
- The use of recycled paper is encouraged.
- More broadly, the Company is keen to modify its processes to replace hard copies with electronic media: an Electronic Document Management system with an electronic review and approval system has been in place since 2010. This solution enables all employees, regardless of where they are, to access original documents through a Web interface. Thanks to this system, the utilisation, circulation and archiving of paper-based documents has been significantly reduced.
- The use of paper consumables (notes, labels) to provide information on products to customers has been reduced. A project to eliminate instruction notices included with reagents is under way for all reagents when permitted by local regulations in the reagents' destination. Electronic instructions will instead be downloadable from the Company's technical library.

Biodiversity

The Company's facilities are located in industrial and urban areas and are not in places where nature, fauna and flora are protected. The Company puts special emphasis on the appearance of its facilities and on the landscaping and attractive architecture of its sites. It has also discontinued the use of pesticides at several sites.

In first-half 2016, bioMérieux acquired Hyglos, which owns an innovative endotoxin assay technique. Previously such assays required the use of the blood of horseshoe crabs, an endangered species. With this acquisition, bioMérieux can now offer an alternative solution, thereby preserving a protected species.

(1) Excluding greenhouse gas emissions, see section 3.3.3.2.

3.4 Business ethics

3.4.1 Main risks

As described in the chapter "Risk Factors" under section 2.3.3 "Good Business Practice", bioMérieux is exposed to risks of corruption associated with its activities. These risks are mainly related to the laws and regulations applicable to interactions with public officials and health professionals and any intermediaries used which may have impacts on the Company's image and financial position.

bioMérieux is also exposed to data protection-related risks, as described in section 2.5.3 "Managing the protection of personal data".

3.4.2 Policy and procedures

bioMérieux's commitment to public health is part of a broader approach to protect patients' interests while upholding its own reputation and looking out for its shareholders' best interests. bioMérieux's actions are governed by a set of principles, directives, standards and procedures that correspond to current ethical norms. Thus, bioMérieux is developing an anti-corruption program which reflects the principles of the Global Compact and current regulations. In particular, bioMérieux and its employees are committed to combating corruption in all its forms, including extortion and bribery.

This program is under the responsibility of the Secretary through the Ethics and Compliance Department. The Global Compliance Officer draws on regional and local managers for the 3 main subsidiaries, as well a team responsible for managing and monitoring exports.

bioMérieux's ethical principles extend to everywhere it operates. For this reason, teams of correspondents have been set up in each site and tasked with disseminating and applying the program's ethical and compliance-related principles at the local level. These teams also ensure that the Group's internal directives and all local laws and procedures are applied. Each site has a dedicated Local Compliance Team (LCT), which at minimum comprises the subsidiary manager or site director, human resources director, Chief Financial Officer and a training coordinator. This team acts as the central team's correspondent at the local level and is responsible for disseminating and applying the Ethics and Compliance program.

General Management, the Executive Committee and the Audit Committee of the Company are regularly apprised of the status of the program.

The Ethics and Compliance Department is in charge of drawing up, promoting and monitoring implementation of all compliance and ethical standards in accordance with applicable laws and the Company's Global Code of Conduct.

3.4.2.1 Ethics and Compliance program

Through the Ethics and Compliance program (the "Program"), bioMérieux places an emphasis on conducting business in compliance with all laws and regulation, as well as in line with the Company's own values and culture. bioMérieux expects its employees to embrace and share these values.

The program is intended to allow all bioMérieux employees to contribute to the Company's growth, in compliance with business ethics, Group culture and all applicable regulations. It is designed to prevent unethical conduct. The program also takes account of the rules that apply in the field of lobbying. The Company also complies with its obligations by declaring its French lobbying activities to the *Haute Autorité pour la Transparence de la Vie Publique* (French high authority for transparency in public life).

For this reason, staff training in the rules of business ethics is a central part of the program, which contributes to the prevention of risks. It draws on the Global Code of Conduct . the principles of which will be gradually developed in line with annually set priorities.

In 2018, the program's main priorities were to:

- enhance measures to prevent corruption, in accordance with the new requirements of the Sapin II law;
- secure the distribution network and other intermediaries;
- relations with health professionals;
- understand and effectively apply export regulations;
- the new EU General Data Protection Regulation (GDPR).

3.4.2.2 Global Code of Conduct

A new version of the Global Code of Conduct, supplemented and adapted to new risks arising mainly from new regulations (in particular the fight against corruption, money laundering, relationships with healthcare professionals, the protection of personal data), was updated and issued to all employees in late 2016. It is available in 9 languages (French, English, Chinese, Spanish, German, Portuguese, Italian, Russian and Turkish) and was the subject of a global staff training and awareness-raising campaign in 2017.

To ensure widespread circulation:

a training course on the content of the Global Code of Conduct is offered to all employees;

- the code has been uploaded to the Company's Corporate website and Intranet;
- references to the Global Code of Conduct and its content have been introduced into classroom and online ethics and compliance training.
- Furthermore, outside partners are made aware of the Global Code of Conduct, and the Group requests that they comply with the principles of business ethics.

3.4.2.3 Anti-corruption principles

bioMérieux's Corruption Prevention program is based on two components. The first is the Global Code of Conduct, which forms the basis of the Ethics and Compliance program. The second is the Corruption Prevention Manual, which can be accessed on the Company's Corporate website and intranet. The Manual sets out the Company's expectations in its relations with partners.

In addition, the Company has produced a document on "Business Principles for Third Parties" and a "Third Party Approval Form" to raise its partners' awareness of the importance of complying with the Company's ethical conduct rules when doing business.

The Corruption Prevention program is designed to:

- promote ethical conduct in business dealings;
- familiarise employees with the Company's rules and anti-corruption laws;
- give employees a forum in which to ask questions.

Finally, the Company has brought its anti-corruption program into compliance with the Sapin II law, by introducing appropriate procedures.

3.4.2.4 Whistle-blowing

Special structures comprising a dedicated hotline and e-mail address have been set up to listen to and advise employees so that they can express themselves freely and report situations of non-compliance.

Any employee who witnesses a breach of the Global Code of Conduct or of laws or regulations in general, should first report the issue to his or her manager or supervisor. Employees may also contact the Human Resources Department, the Legal Department or the Ethics and Compliance Department.

An ethics hotline has been rolled out in all of bioMérieux's host countries and is independently managed by an external provider. It provides employees with a local telephone hotline in the local language, as well as a website through which a report can be made online. To this end, in 2018 all Group employees received a card with the local contact details or website to submit their report.

The Company has a zero-tolerance policy concerning threats to employees who have reported something in good faith, refused to break the law, or taken part in an investigation.

Finally, the Company has made the necessary changes to its procedures and tools in order to inCorporate the status of whistleblower as defined by the Sapin II law.

3.4.3 Indicators

The Ethics and Compliance program provides for online training, with the schedule, content and target audience determined on a yearly basis. The training aims to raise employee awareness of applicable internal regulations and procedures so that team members can conduct themselves in an upright, ethical manner in their business and work relationships.

In 2018, over 15,000 online courses have been given to employees across all subsidiaries, including courses on conflicts of interest, anti-corruption, export controls and GDPR. Furthermore, courses on the AdvaMed ("Advanced Medical Technology Association") and MedTech Europe (European association of medical equipment suppliers) and Mecomed (for the Middle East and Africa) Codes of Conduct were also distributed to the employees concerned. Finally, since 2016, all new hires have systematically taken three compulsory courses (on the Global Code of Conduct, the fight against corruption and conflicts of interest).

In 2016, bioMérieux put in place a global training and awareness campaign on its Code of Conduct for all of its employees. In 2017 and 2018, the Company provided this training to all new recruits. This training was provided to almost 2,400 employees. In 2019, there will be a new global training campaign for all of its workforce.

Lastly, in 2018, the GDPR compliance campaign resulted in an inventory of more than 200 processes handling data of a personal nature within the Company. Assessing these processes led to 24 privacy impact assessments and to maintaining a processing register including more than 277 applications within the scope of the GDPR.

3.5 Human rights

3.5.1 Main risks

To the best of the Company's knowledge, at the time of preparing the Registration Document and based on the results of the risk assessment carried out during the financial year (as described in the methodology of the chapter "Risk factors"), no significant human rights risk has been identified. Indeed, over 95% of bioMérieux's production is in Europe and the United States and requires qualified, trained employees.

Despite this, and although around 90% of its purchases are in Europe and the United States, bioMérieux remains vigilant to these risks that may exist on the part of its suppliers, service providers or subcontractors. The Company has introduced procedures to ensure respect for fundamental human rights. These procedures are set out below.

3.5.2 A policy based on the principles of the Global Compact

Since 2003, bioMérieux has renewed its support for the Global Compact every year. This international initiative, under the auspices of the United Nations, invites signatory companies to commit to respecting a code of ten principles related to human rights, working conditions, the environment and the fight against corruption. Every year bioMérieux publishes the progress made through the various initiatives undertaken in line with the Compact's principles. For more information, see: http://www.biomerieux.com/en/global-compact.

bioMérieux is making a real commitment, with the implementation of initiatives to support the principles of the Global Pact, particularly around human rights. As such, bioMérieux and its employees commit to promoting and respecting the protection of international human rights law and ensuring they are not complicit in human rights violations.

3.5.3 Procedures and indicators

3.5.3.1 Global Code of Conduct and Training

bioMérieux's Global Code of Conduct inCorporates and clarifies human rights principles (see section 3.4.2.2).

This code is circulated to all employees and is covered in training sessions. Outside partners are also made aware of the code, and the Group requests that they comply with the principles of business ethics.

3.5.3.2 Responsible purchasing

For several years, bioMérieux has refocused on its core business that is undergoing profound changes due to progress in biology and *in vitro* Diagnostics technologies. The Company therefore works with numerous exterior partners: purchases of materials and services (see section 2.4.1).

To ensure CSR continuity, bioMérieux is committed to the sustainable management of its relationship with partners. bioMérieux inCorporates suppliers into its continuous improvement process and involves them in its sustainable growth strategy, based on environmental protection (see section 3.3.2) social progress and fundamental human rights.

bioMérieux's commitments and requirements with respect to its suppliers are described in the "Ethical and Sustainable Development Charter between bioMérieux and its suppliers". This charter, which was reviewed in 2018, highlights the crucial aspects of the Company's approach to responsible purchasing. It was signed by the Chairman and Chief Executive Officer and the Vice-President, Purchasing.

Every year, bioMérieux provides specific training to purchasing teams in the implementation of this policy.

Since 2015, bioMérieux has been intensifying its efforts in favour of responsible purchasing and includes in its new contracts clauses on ethics and compliance as well as those specific to health professionals.

In terms of responsible purchasing, bioMérieux has stepped up evaluation of its suppliers by incorporating CSR criteria connected with their activities in the selection process and monitoring the CSR performance of strategic suppliers annually.

Moreover, in 2018 bioMérieux launched a process to assess the CSR record of its suppliers with the help of a rating agency (Ecovadis).

Since 2016, bioMérieux SA has used a service provider to enhance its procedures for monitoring its French suppliers, in particular in relation to the client's obligations under undeclared work regulations.

Furthermore, bioMérieux uses raw materials of animal origin for some of its products (for example sheep's blood and horse's blood). As such, the Company asks its suppliers to ensure animal well-being by putting in place the necessary structures, procedures and authorisations. As an example:

- structure du Bien-Etre ANIMAL (SBEA) which ensures that animal treatment complies with current regulations, that approved protocols are properly followed, that where these protocols are put in place they are properly adapted from the point of view of animal pain, and finally that the animals are treated in the appropriate conditions (food, care, light, analgesia);
- ethics committee;
- authorisation for animal research issued by the Ministry in accordance with European regulation 2010/63.

As part of its veterinary activities, bioMérieux tests the effectiveness of its tests on animals. However, these studies are conducted ex vivo and do not affect the physical integrity of the animals tested.

Finally, insofar as possible bioMérieux strives not to use raw materials or components containing minerals that are known to prolong conflict (conflict minerals).

3.5.3.3 Application of the law on the duty of vigilance of parent companies and contracting companies (article L. 225-102-4 of the French Commercial Code)

bioMérieux and its direct and indirect subsidiaries has employed at least 10,000 employees since December 31, 2017. As such, from January 1, 2019, it must draw up and implement a vigilance plan under the French law on the Duty of Vigilance of parent companies and contracting companies.

The Company has taken measures to identify risks and prevent serious violations of human rights and fundamental freedoms, health and safety and the environment. In particular, in 2018 it extended the scope of its whistle-blowing line to include the serious violations covered by the vigilance plan. In 2020 the Company will communicate the vigilance plan it has put in place as well as the results of its actions.

3.6 Tax evasion

3.6.1 Risks

bioMérieux operates in over 160 countries worldwide and has its own distribution networks in over 40 countries. These countries have different tax systems. Tax risk lies in changes to laws and regulations, the interpretation of such laws and regulations and changes in case law in terms of the application of tax rules (as described in the chapter "Risk factors", in sections 2.4.2 "International Activities" and 2.5 "Legal and Regulatory RIsks").

3.6.2 Policy and procedures

bioMérieux's tax policies are responsible. bioMérieux's tax contribution includes wide range of direct and indirect taxes, corporation tax, social security contributions, as well as customs duties, paid in many countries. bioMérieux's tax approach is aimed at ensuring compliance with local legislation and regulations as well as with relevant international standards.

In accordance with bioMérieux's Code of Conduct, the Group's tax policy is defined according to the following principles:

- Taxation that reflects its activities: bioMérieux's taxation is the result of its activities and operational choices: bioMérieux does not use any off-shore structures, nor assign functions or risks to structures with no economic substance;
- Compliance: bioMérieux ensures that all taxes and contributions are declared and paid in compliance with local regulations, and in accordance with recognised international standards such as the OECD guidelines. Furthermore, subsidiaries in the bioMérieux Group are required to follow the Global Code of Conduct which promotes the financial integrity of staff and anti-money laundering measures in particular;
- International balance: bioMérieux has a transfer price policy, which is updated regularly and applies to all cross-border transactions within the Group. These transactions within the bioMérieux Group are subject to his policy or are reviewed on a case-by-case basis where appropriate;
- Cooperation with the tax authorities: bioMérieux promotes open, proactive communication with the tax authorities in all countries.

The Tax Department reports to the Group's Administrative and Financial Department. It draws on a network of internal contacts and on external consultants, depending on the issue. This coordinates, raises awareness and supports the financial departments of each Group subsidiary so as to ensure they meet the standards of compliance required according to the Group's policy and standards.

bioMérieux helps to draft the annual Country by Country Reporting (CbCR) which is submitted to the French tax administration by the ultimate parent Compagnie Mérieux Alliance, Institut Mérieux's parent company.

3.6.3 Initiatives developed and results of policies

The Taxation Department develops, coordinates and implements the Company's tax policy, in particular through the following measures:

- tax compliance awareness campaigns aimed at the relevant functions (directors of subsidiaries, financial officers, management controllers etc.);
- Involvement in the Company's various projects, particularly Business Development projects, integration of acquired companies and restructuring.

3.7 Methodology – indicator scope

3.7.1 Calculation scope of quantified indicators

The scope corresponds to the bioMérieux Group with the exception of Applied Maths , Hyglos, Astute and Hybiome acquired in 2015 and 2016 respectively, unless otherwise stated. BioFire, acquired in 2014, is included in the quantified data from that year onwards.

3.7.2 Collection and consolidation of data

Health and Safety data are collected on a monthly basis, and environmental data on a quarterly basis, from HSE representatives in the Company's entities. Data are consolidated by the Group HSE team.

With regard to occupational Health and Safety, all consolidated data comply with regulations for recording occupational accidents and diseases for each country in question.

Reporting covers all entities with 20 or more full-time equivalent employees. A total of 315 full-time equivalent employees are not covered.

Human resources data is collected at year end through the information system used by all Group entities, except for absenteeism data, which are consolidated on the basis of information managed locally.

3.7.3 Definition and method of calculating the indicators

Human resources

- Workforce applicants, new hires and departures: permanent and temporary employees (excluding interns, international volunteers (VIE) and agency staff).
- Training: all training hours recorded and delivered in the training management system used by all Group entities, whether *via* e-learning or classroom-based.
- Promotions: for an employee still employed by the Company at December 31 of year N, identification of career changes involving a change in level together with related reason, compared to December 31 of year N-1.
- Absenteeism: number of days of absence (excluding maternity leave, paternity leave and leave related to length of service) divided by the theoretical number of working days (excluding weekends, public holidays, paid vacation and workweek reduction time) and multiplied by the average annual FTEs. Only entities with more than 50 FTEs are considered.

Health and Safety

- Number of lost-time occupational accidents: number of accidents occurring in the workplace and resulting in more than one day's lost time (the day on which the accident occurs is not counted as lost time). The number of accidents includes those involving both permanent and temporary employees.
- Accidents are categorised as follows: lost-time occupational accident, occupational accident without lost time and non-reportable accident. The last category was created in 2017 to better standardise the way accidents are recorded across different countries and includes accidents for which bioMérieux considers it has no means of prevention (*e.g.*: injury during team activity off work premises or during personal activities carried out on work premises, sickness unrelated to work, food poisoning, etc.).
- Number of days lost: number of days lost following a lost-time occupational accident that occurred during the year. The day of the accident's occurrence is not counted as lost time. The extension to work stoppage days is counted in the month and the year the accident occurred.
- Frequency rate of lost-time occupational accidents: number of occupational accidents with lost time per million hours worked.
- Frequency rate of total reportable occupational accidents: number of occupational accidents with or without lost time per million hours worked.
- Severity rate: number of days off work per thousand hours worked.
- Number of occupational diseases: an occupational disease is the result of exposure, of any duration, to a risk existing in the normal practice of the profession.

Environment

Data for previous years may be modified following adjustments.

Indicators relating to water:

- water consumption (thousand m3);
- the performance indicator monitored is the total water consumption of the Company's entities in cubic meters in relation to the Company's sales (in m3 per €million);
- discharge of industrial effluents (thousand m3).

Indicators relating to energy:

- total energy consumption (GWh);
- consumption of energy from renewable sources (GWh);
- the performance indicator monitored is the total energy consumption (from all energy sources) of the Company's various entities in relation to the Company's sales (in MWh per €million).

Indicators relating to waste:

- total amount of waste produced (metric tons): one-off waste such as inert waste, construction/demolition waste and waste from contaminated soil is excluded from the scope;
- hazardous waste: Total amount of hazardous waste produced (metric tons). Hazardous waste is waste with one or more properties that poses a threat to human health or the environment, and requires special processing. This category includes chemical waste, infectious waste, or waste electrical and electronic equipment;
- recovery of materials or energy: the performance indicator monitored is the ratio, expressed as a percentage, of the total weight of waste composted, recycled or incinerated with energy recovery to the total weight of waste.

Indicators relating to greenhouse gas emissions:

- The annual balance sheet contains consolidated data for year y-1;
- greenhouse gas emissions are assessed using GreenHouse Gas Protocol and Bilan Carbone® methodologies.

The following indicators are assessed:

Scope	Type	Input data	Emission factors
Scope 1	Direct emissions from fixed combustion sources	Fossil fuel consumption collected *via* environmental reporting	GHG Protocol
	Direct emissions from mobile sources equipped with a thermal combustion engine	CO_2 data collected from our suppliers	N/A
	Fugitive direct emissions	Cooling gas emissions after accidental leak. This data is collected *via* environmental reporting	IPCC 2016, others
Scope 2	Indirect emissions related to electricity consumption	Electricity consumption collected *via* environmental reporting	ADEME
	Indirect emissions related to the use of steam, heat or cooling	Heated water consumption collected *via* environmental reporting	ADEME
Scope 3	Commuting	Calculation of average distances by site	ADEME
	Business travel	CO_2 data collected from our suppliers	N/A
	Car rentals	CO_2 data collected from our suppliers	N/A
	Global freight	CO_2 data collected from our suppliers	N/A
	Local freight	CO_2 or mass x distance result collected from our suppliers depending on the transport type (air, road, sea)	Air: GHG Protocol Road: ADEME Sea: GHG Protocol
	Product use	Average energy consumption of equipment	ADEME
	End of product life		

Uncertainties are calculated as follows:

- uncertainty for input data: assessment based on experience and practice;
- uncertainty about the emission factor: take value provided for the protocol used on the factor.

3.8 Report by the independent third party on the consolidated statement of non-financial performance that appears in the management report

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicablein France.

To the General Meeting,

In our capacity as an independent third party certified by COFRAC under number 3-1050 (scope of accreditation available at www.cofrac.fr) and member of the network of one of the Statutory Auditors of your Company (hereinafter the "entity"), we hereby report to you on the consolidated statement of non-financial performance (hereinafter the "Statement") for the year ended December 31, 2018, as presented in the management report in accordance with the legal and regulatory provisions of Articles L.225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (Code de Commerce).

Responsibility of the entity

The Board of Directors is responsible for preparing a Statement that complies with the legal and regulatory provisions, including presenting a business model, describing the principal non-financial risks, presenting the policies applied in response to the risks and the results of these policies, including key performance indicators.The Statement was prepared by applying the entity's procedures (hereinafter the "Guidelines") whose main features are presented in the Statement and available on request at the Company's registered office.

Independence and quality control

Our independence is defined by the provisions of Article L.822-11-3 of the French Commercial Code and the French Code of Ethics governing the audit profession. We have also implemented a quality control system comprising documented policies and procedures to ensure compliance with the codes of ethics, professional auditing standards and applicable legal and regulatory texts.

Responsibility of the independent third party

On the basis of our work, it is our responsibility to provide a duly reasoned opinion expressing limited assurance on:

- the Statement's compliance with the provisions set out in Article R. 225-105 of the French Commercial Code;
- the accuracy of the information provided pursuant to the third paragraph of part I and II of Article R. 225-105 of the French Commercial Code, namely, the results of policies, including key performance indicators, and actions, in relation to the principal risks, hereinafter the "Information".However, it is not our responsibility to determine:
- the entity's compliance with other legal and regulatory provisions that are applicable, in particular those relating to the vigilance plan and combating corruption and tax evasion;
- the compliance of products and services with the applicable regulations.

Nature and scope of our work

Our work described below was carried out in accordance with the provisions of Articles A 225-1 et seq. of the French Commercial Code which determines the terms and conditions under which the independent third party performs its engagement, and according to professional standards as well as the international standard ISAE 3000 - Assurance engagements other than audits or reviews of historical financial information.We carried out work enabling us to assess the Statement's compliance with the regulatory provisions and the accuracy of the Information:

- We were made aware of the activity of all of the companies included within the scope of consolidation, of the description of the principal social and environmental risks related to this activity and, where applicable, of their effects in terms of the respect for human rights and combating corruption and tax evasion, together with the corresponding policies and their results;
- We assessed the suitability of the Guidelines in the light of their relevance, completeness, reliability, impartiality and comprehensibility, taking good industry practice into account when necessary;
- We ensured that the Statement covers each category of information stipulated in part III of Article L. 225-102-1 on social and environmental information, respect for human rights and combating corruption and tax evasion;
- We ensured that the Statement presents the business model and the principal risks related to the activity of all the entities included in the scope of consolidation, including, where appropriate and proportionate, risks created by its business relationships, products or services together with policies, actions and results, including key performance indicators;
- We ensured, when information was relevant in the light of the principal risks or policies presented, that the Statement presents the information stipulated in part II of Article R. 225-105;
- We assessed the process for selecting and validating the principal risks;
- We enquired about the existence of internal control and risk management procedures implemented by the entity;we assessed

the consistency of the results and of the key performance indicators used in light of the principal risks and policies presented;

- We verified that the Statement covers the consolidated scope, namely, all of the entities included in the scope of consolidation in accordance with Article L. 233-16 within the limits specified in the Statement;
- We assessed the collection process put in place by the entity to ensure the completeness and accuracy of the Information;
- For the key performance indicators and other quantitative results that we considered to be most significant as presented in Appendix 1, we employed:
  - analytical procedures to verify that the data collected was consolidated correctly and the consistency of any changes,
  - detailed tests based on samples, to ensure that definitions and procedures were applied correctly and to reconcile the data in the supporting documents. This work was carried out at a selection of contributing entities listed hereafter: bioMérieux S.A. (La-Balme-les-Grottes site), bioMérieux Inc. (Saint-Louis and Chicago Lombard sites) covering between 13-20% of the consolidated data selected for these tests (20% of energy consumption, 13% of the workforce);
- We consulted the documentary sources and conducted interviews to corroborate the qualitative information (actions and results) that we considered to be the most important ones presented in Appendix 1;
- We assessed the consistency of the Statement as a whole in relation to our knowledge of all of the entities included within the consolidation scope.

We believe that the work that we have performed in exercising our professional judgement allows us to provide a conclusion of limited assurance; a higher level of assurance would have required more extensive verification work.

Means and resources

Our work drew on the skills of four people between October 2018 and February 2019 over a total period of activity of around five weeks.We conducted around 10 interviews with the people responsible for preparing the Statement who, in particular, represented the General Management and the Administration and Finance, Risk Management, Compliance, Human Resources, Health and Safety, Environment and Purchasing Departments.

Conclusion

Based on our work, no material irregularities came to light questioning the compliance of the statement of non-financial performance with the applicable regulatory provisions or questioning that the Information, taken as a whole, is presented fairly in accordance with the Guidelines.

Without bringing into question the conclusion expressed above and in accordance with the provisions of Article A. 225-3 of the French Commercial Code, we make the following comment:

- The identification of the principal non-financial risks is based on the corporate risk mapping exercise approved by the Audit Committee, but was not subject to a specific CSR assessment based on the industry guidelines generally accepted by stakeholders.

Paris-La Défense, February 27, 2019

The independent third party

ERNST & YOUNG & Associés

Eric Duvaud

Partner in charge of Sustainable Development

Jean-François Bélorgey

Partner

Appendix 1: information considered to be the most important

Human resources

Quantitative information (including key performance indicators)	*Qualitative information (actions or results)*
Change in employee numbers, breakdown of workforce by geographic area	New employment agreements
Overall voluntary turnover rate and for employees with less than three years of service	Take-up of the employee share ownership plan
Absenteeism	Profit-sharing, incentives and employee saving agreements
Promotion/internal mobility	Talent Pool and Succession PlanTraining policy and Mérieux University
Overall breakdown by gender and among managers	Health, safety and the environment policy, organisation and management system: "Vision 2020 Health, safety and the Environment"
Employment rate of people with disabilitiesFrequency rate of lost-time occupational accidents	
Severity rate of occupational accidents	
Number of occupational diseases	

Environmental information

Quantitative information (including key performance indicators)	*Qualitative information (actions or results)*
Number of ISO 14001 certified sites	Internal processes and procedures specific to hazardous substancesInvestment policy: "HSE requirements for new constructions and major renovations"Energy efficiency and consumption reduction program
Scope 1 and 2 greenhouse gas emissions	Qualitative information (actions or results)
Total waste and hazardous waste generated	
Consumption of public water and groundwater	
Discharges into waterTotal energy consumption and % of energy consumed from renewable sources	

Corporate information

Quantitative information (including key performance indicators)	*Qualitative information (actions or results)*
Number of hours of training on the Code of Conduct in 2018 and % of employees trained	Program for combating and preventing corruption (Code of Conduct, training and whistle-blowing system)
	Support for the Global Compact
	Supplier CSR assessment process (EcoVadis, compliance with REACH (Registration, Evaluation, Authorisation, restriction of CHemicals) and BPR (Biocidal Product Regulation)
Name of organisation in tax haven	Support for the Foundations

4

CORPORATE GOVERNANCE

4.1 Corporate governance: principles and framework for implementation

The Company complies with applicable Corporate governance requirements. It refers to the AFEP-MEDEF Corporate Governance Code, which summarises current Corporate governance principles applicable in France, revised in June 2018. This code may be viewed online on the MEDEF website:

https://www.medef.com/uploads/media/node/0001/14/38d096a7febd344f8bb9a71e53c557239bf80750.pdf

The provisions of the code that have not been applied and the reasons for such non-compliance are set out in the following table.

The recommendations of the HCGE, received by letter in 2015, and then in 2018, and to which the Company has responded, are listed in the table below where the Company has decided not to follow them or to comply with them during the financial year.

Shares held by the directors *Significant number of shares*	Each of the directors held a number of Company shares in accordance with the internal rules.
Independent directors	Harold Boël is a director of Mérieux NutriSciences Corporation, a company consolidated by the Institut Mérieux. The Board of Directors, after discussion with the Human Resources, Appointment and Compensation Committee, considers that he remains an independent director. bioMérieux and Mérieux NutriSciences have business relationships that are outside the competence of the Board of Directors. Harold Boël has no influence in this regard. There are thus no conflicts of interest.In addition, Harold Boël will abstain from discussions and votes held by the Board of Directors regarding any circumstances relating to Mérieux NutriSciences Corporation.
Annual variable compensation of executive corporate officers	bioMérieux will indicate with greater precision which indicators the Board of Directors, upon the recommendation of the Human Resources, Appointment and Compensation Committee, will use to determine and then assess the performance of executives. This will be done, while taking into account the confidentiality of some data, in order to account for the insufficient nature of the information related to the determination of variable compensation by the Board of Directors for both quantitative and qualitative criteria.

In addition, during the 2018 financial year, the Company has complied with the provisions of the AFEP-MEDEF Code, described below, that it had initially rejected.

Duration of directors' terms of office *Staggering of directors' terms of office*	The Company now staggers the terms of office of its directors. The 2018 General Meeting amended the Company's bylaws to allow it to appoint and/or renew one or several director(s) for a term of one, two, or three years.
Board of Directors' assessment of General Management *The Board of Directors assesses and evaluates the performance of General Management independently and collectively*	In view of Alexandre Mérieux's roles as a director and as Chairman and Chief Executive Officer, the members of the Board of Directors assess General Management's performance in the presence of General Management. In particular, the Human Resources, Appointment and Compensation Committee discusses the performance of Alexandre Mérieux, out of his presence, prior to sharing its analysis with the Board of Directors that Alexandre Mérieux chairs. Nevertheless, during the 2019 financial year, the Company will evaluate Alexandre Mérieux's 2018 performance, out of his presence.
Regular meetings of the non-executive directors without executive or internal directors present	In 2018, the Company organised a meeting of its non-executive directors. These meetings will continue at least once a year.

4.2 General Management, Board of Directors and Board committees

4.2.1 Summary presentation of Board of Directors

	Personal information				Experience		Position on the Board			
	Age	Sex	Nationality	Number of shares	Number of directorships in listed companies	Independence	Initial appointment date	Term expiration	Longevity on the Board	Participationin Board committees
Alexandre Mérieux *Chairman and Chief Executive Officer*	45 years old	H	French	60	6		04/16/2004	2021	14 years	
Philippe Archinard *Non-independent director*	59 years old	H	French	30	6		06/10/2010	2019	8 years	Member of the Audit Committee
Jean-Luc Belingard *Non-independent director*	70 years old	H	French	150	2		09/15/2006	2021	12 years	Chairman of Strategy Committee Member of the Human Resources, Appointment and Compensation Committee
Harold Boël *Independent director*	54 years old	H	Belgian	150	2	✓	05/30/2012	2020	6 years	Chairman of the Audit Committee
Philippe Gillet *Independent director*	61 years old	H	French	132	1	✓	05/28/2014	2019	4 years	Member of the Strategy Committee
Marie-Hélène Habert *Independent director*	53 years old	F	French	57	6	✓	05/30/2012	2020	6 years	Member of the Human Resources, Appointment and Compensation Committee
Marie-Paule Kieny *Independent director*	63 years old	F	French	180	0	✓	08/28/2017	2021	<1 year	Member of the Strategy Committee
Fanny Letier *Independent director*	39 years old	F	French	30	1	✓	06/30/2017	2021	1 year	Chairman of the Human Resources, Appointment and Compensation Committee
Agnès Lemarchand *Independent director*	64 years old	F	French	150	2	✓	05/28/2014	2019	4 years	Member of the Audit Committee
Michele Palladino *Non-Independent director*	78 years old	H	Italian	6,000	0		07/6/2004	2019	14 years	Member of the Strategy Committee
Frederic Besème *Employee director – CSR Manager*	62 years old	H	French	2,780	0		05/17/2018	2022	1 year	

4.2.2 Uniqueness of the functions and composition of the Board of Directors

The Board of Directors is composed of at least three members and up to the maximum number permitted by law.

At December 31, 2018, it had eleven members of whom six were independent and one was an employee director.

Uniqueness of the functions - The Chairman and Chief Executive Officer

The Company chose to entrust General Management to the Chairman of the Board of Directors. The Company believes that, as a controlled company, this method of governance is best suited to its operations and to protecting its interests.

Alexandre Mérieux has been Chairman and Chief Executive Officer since December 15, 2017.

The Chairman and Chief Executive Officer has the broadest powers to act in all circumstances in the name of the Company. He exercises his powers within the limits of the Corporate purpose and subject to the powers expressly granted by law to Shareholders' Meetings and to Board of Directors' meetings. He represents the Company in its dealings with third parties. He does not make any major decision without the agreement of the Board of Directors, which rules collectively. The Board of Directors has not specifically limited the powers of the Chief Executive Officer, except as regards certain provisions set out in its internal rules and defined in section 4.2.5.2.

The Company ensures that the prerogatives of each Corporate body (Annual General Meetings, the Board of Directors and General Management) are fully respected. Moreover, the Board of Directors' review of all major matters relating to the Company and the presence of six independent directors on the Board prevent any centralisation of powers and promote compliance with the rules of good governance.

The directors

The Annual General Meeting of May 17, 2018 renewed the terms of office of:

- Alexandre Mérieux and Jean-Luc Bélingard, for a four-year term, *i.e.* expiring at the close of the General Meeting to be held to approve the financial statements for the year ending December 31, 2021;
- Agnès Lemarchand and Philippe Archinard, Philippe Gillet and Michele Palladino for a term of office of one year, *i.e.* expiring at the close of the Annual General Meeting held to approve the financial statements for the year ended December 31, 2018.

The terms of office of Marie-Hélène Habert and Harold Boël were renewed by the Annual General Meeting of May 26, 2016 and will expire at the close of the Annual General Meeting to be held in 2020 to approve the financial statements for the year ending December 31, 2019.

Marie-Paule Kieny and Fanny Letier were also appointed directors during the Annual General Meeting of May 30, 2017 for a four-year term, *i.e.* until the close of the Annual General Meeting to be held in 2021 to approve the financial statements for the year ending December 31, 2020.

The Board of Directors will recommend that shareholders at the General Meeting on May 23, 2019 do not renew the terms of office of Philippe Gillet and Michele Palladino. It will also recommend that the terms of office of Agnès Lemarchand and Philippe Archinard be renewed for a period of four years, i.e. expiring at the close of the General Meeting that will take place in 2023 to approve the financial statements for the year ended December 31, 2022.

Agnès Lemarchand

Agnès Lemarchand, a French national, was born in Lille on December 29, 1954. She is a graduate of the National Chemical Engineering Institute in Paris (ENSCP), Massachusetts Institute of Technology (US) and INSEAD. She has spent her career in industry. She served as Chief Executive Officer of Industrie Biologique Française (a joint venture between the Rhône-Poulenc group and Institut Mérieux), Chairwoman and Chief Executive Officer of Prodical (a subsidiary of the Ciments Français group specialising in the mineral industries), and Chairwoman and Chief Executive Officer of the Lafarge group's lime business.

She was a member of the Lafarge operating committee. In 2005, she took over its lime business in the UK and founded Steetley Dolomite Ltd (UK), where she served as Executive Chairwoman. She was a member of the supervisory boards of Aréva, CGG Veritas and Vivescia Industries (SCA) (where she represented Bpifrance), and also of the French Economic, Social and Environmental Committee (economic activity section). She is a member of the Steering Committee of the "34 Plans de la Nouvelle France Industrielle", a committee under the auspices of the French Prime Minister. She is currently a member of the Saint-Gobain Board of Directors and the Solvay Board of Directors. She has been a director of bioMérieux since 2014.

The Board of Directors meeting on February 26, 2019, having debated the matter, concluded that Agnès Lemarchand is an independent director.

Philippe Archinard

Philippe Archinard, a French national, was born on November 21, 1959. He was the Chief Executive Officer of Innogenetics until 2004. He began his working career at bioMérieux in 1985 in various roles in France and the United States, where he managed the US subsidiary, bioMérieux Inc. Mr Archinard was appointed Chairman and Chief Executive Officer of Transgene in 2010; he had been Chief Executive Officer since 2004. Since 2014, Philippe Archinard has been Chairman of Bioaster (Foundation for scientific cooperation), a technology research institute focusing on infectious diseases and microbiology. He holds a chemical engineering degree and a PhD in biochemistry from Lyon University and has completed the Program for Management Development (PMD) at Harvard Business School. He chaired the Lyon competitiveness cluster, Lyon Biopôle, for 11 years. He is a director of Erytech Pharma SA and of the School of Chemistry, Chemical Engineering and Digital Sciences in Lyon (CPE), representing the University of Lyon Foundation (FPUL) in Lyon. He has been a director of bioMérieux since 2010.

Philippe Archinard is not an independent director.

The director representing employees

Frederic Besème was appointed director representing employees during 2018 for a period of four years. The General Meeting of May 17, 2018 amended the bylaws to allow for the terms and conditions of his appointment by the Central Works Council.

The Founding Chairman

Alain Mérieux was appointed the Founding Chairman by the Board of Directors, to take effect from August 28, 2017, for a four-year term expiring at the end of the Annual General Meeting called to approve the financial statements for the year ending December 31, 2020. The General Meeting of May 30, 2017 approved the amendment of the bylaws enabling the Board of Directors to "appoint an honorary Founding Chairman, a natural person, selected from among the former Chairpersons of the Company". The Founding Chairman is eligible indefinitely. He is invited to all Board meetings and attends the Board of Directors sessions in an advisory role. He must nevertheless comply with the internal rules of the Board of Directors. His right to information and communication is identical to that of the members of the Board of Directors.

The representatives of the Works Council

There are four representatives who participate in the Board of Directors meetings.

Changes in the composition of the Board of Directors and its committees during the financial year

Situation as of February 26, 2019.

	Departure	Appointment	Renewal
Board of Directors	N/A	Frédéric Besème (17 May 2018)	Alexandre Mérieux (May 17, 2018) Jean-Luc Belingard (May 17, 2018) Philippe Gillet (May 17, 2018) Agnès Lemarchand (May 17, 2018) Michele Palladino (May 17, 2018)
Audit Committee	N/A	N/A	Agnès Lemarchand (17 May 17, 2018) Philippe Archinard (17 May 2018)
Human Resources, Appointment and Compensation Committee	N/A	N/A	Jean-Luc Belingard (May 17, 2018)
Strategy Committee	N/A	n/a	Jean-Luc Belingard (May 17, 2018) Philippe Gillet (17 May 2018) Michele Palladino (May 17, 2018)

4.2.3 Description of the terms of office of the directors

The table below presents all of the directorships and positions held in other companies by each of the Company's corporate officers based on the information they have submitted.

Alexandre Mérieux

MAIN POSITION WITHIN THE COMPANY: CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Non-independent director 45 years old Born on 01/15/1974 Son of Alain Mérieux (Founding Chairman) Nationality: French First appointed on: 04/16/2004 Term expires: 2022 Number of bioMérieux shares held: **60**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[1]:* — Chief Operating Officer and Vice-President of the Institut Mérieux — Chairman of Mérieux Développement SAS, Mérieux NutriSciences Corp. (Chairman) (United States) — CEO of Compagnie Mérieux Alliance — Director of IM US Holding (US) — Manager of SCI ACCRA — Director of the Christophe and Rodolphe Mérieux Foundation and the Mérieux Foundation *Outside the Group[1]:* — Director of Plastic Omnium (France - listed company) — Permanent representative of Mérieux Participations 2, Director of Financière Senior Mendel SAS (France) **Directorships and positions that have expired in the past five years** *Within the Group[1]:* Permanent representative of Mérieux NutriSciences Corp (formerly Silliker Group Corp), bioMérieux India Private Ltd. (India), bioMérieux UK Ltd. (United Kingdom), bioMérieux Polska sp. z.o.o. (Poland), BTF (Australia), Skiva SAS, bioMérieux Canada, AES Laboratoire Groupe SA (term expired: 2012), AES Chemunex SA (term expired: 2013), bioMérieux Inc. (United States) (term expired: 2014), bioMérieux China Ltd. (China), bioMérieux Shanghai Ltd (China), Sysmex bioMérieux Ltd (Japan), SGH, Foncière de Montcelard SAS (term expired: 2015) *Outside the Group[1]:* N/A	**Other professional activities and past positions:** *Management experience and expertise:* - HEC Montréal - Marketing Director at Silliker Group Corporation (United States, Europe then France), Head of Business Unit, Chairman of Adriant SAS (1999 to 2004) - Corporate Vice-President of the Industrial Applications unit of bioMérieux from 2005 to 2011; - Corporate Vice-President of the Microbiology unit and Manufacturing and Supply Operations from 2011 to 2014.

(1) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Philippe Archinard

MAIN POSITION WITHIN THE COMPANY: MEMBER OF THE AUDIT COMMITTEE

Non-independent director 59 years old Born on 11/21/1959 Nationality: French First appointed on: 06/10/2010 Term expires: 2019 Number of bioMérieux shares held: **30**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[a]:* — Chairman and Chief Executive Officer of Transgene SA (France - listed company) — Chief Executive Officer of TSGH (France) — Permanent representative of TSGH, director of ABL Inc. (US) *Outside the Group[a]:* — Director of Erytech Pharma SA (France – listed company) — Director of CPE Lyon – Representative of FPUL — Chairman of BIOASTER (Foundation for scientific cooperation) **Directorships and positions that have expired in the past five years** N/A	**Other professional activities and past positions:** *Management experience and expertise:* — Graduate of Harvard Business School — Chief Executive Officer of Innogenetics (Belgium) from 2000 to 2004 — Chairman of the Immunotherapy Department of the Institut Mérieux

(a) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Jean-Luc Belingard

MAIN POSITION WITHIN THE COMPANY: CHAIRMAN OF THE STRATEGY COMMITTEE AND MEMBER OF THE HUMAN RESOURCES, APPOINTMENT AND COMPENSATION COMMITTEE

Non-independent director 70 years old Born on 10/28/48 Nationality: French First appointed on: 09/15/2006 Term expires: 2022 Number of bioMérieux shares held: **150**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[a]:* — Director of Institut Mérieux (France), Transgene SA (France – listed company), ABL Inc. (United States) (United States) *Outside the Group[a]:* — Director of Stallergenes Greer (UK – listed company), Pierre Fabre SA (France), LabCorp of America (US – listed company), Lupin (India – listed company) **Directorships and positions that have expired in the past five years** *Within the Group[a]:* Director of ABL Inc (end:2018), AES Laboratoire Groupe SA (term expired: 2012), AES Chemunex SA (term expired: 2013) *Outside the Group[a]:* N/A	**Other professional activities and past positions:** *Management experience and expertise:* — HEC Paris — MBA Cornell University (US) — CEO of Roche Diagnostic and Member of the Executive Committee of Roche Group (1990 to 1999) — Member of the Management Board and CEO of bioMérieux-Pierre Fabre from 1999 to 2001 — Chairman and Chief Executive Officer of IPSEN (2001 to 2010) — Chairman and Chief Executive Officer of bioMérieux (2011-2017)

(a) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Harold Boël

MAIN POSITION WITHIN THE COMPANY: CHAIRMAN OF THE AUDIT COMMITTEE

Independent director[a] 54 years old Born on 08/27/1964 Nationality: Belgian First appointed on: 05/30/2012 Term expires: 2020 Number of bioMérieux shares held: **150**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[b]:* — Director of Mérieux NutriSciences Corporation (US) *Outside the Group[b]:* — Deputy director of Sofina SA (Belgium – listed company), Société de Participations Industrielles (Belgium), Domanoy (Belgium), SODAVI (Belgium) **Directorships and positions that have expired in the past five years** *Within the Group[b]:* N/A. *Outside the Group[b]:* Member of the Supervisory Board of Eurazeo (France – listed company) (term expired: September 2017) Director of Caledonia Investment plc (UK – listed company (term expired: May 2017), Suez Environnement (France – listed company (term expired: 2016), Henex (term expired: 2014), Electrabel (term expired: 2014), François Charles Oberthur Fiduciaires (term expired: 2012)	**Other professional activities and past positions:** *Management experience and expertise:* — Bachelor degree in Chemistry from Brown University (US) and diploma in Materials Science Engineering from Ecole polytechnique fédérale de Lausanne — Various managerial positions in the steel industry within the Corus Group — Chief Executive Officer of Sofina (Belgium – listed company)

(a) Independent director, based on Board of Directors' evaluation, see Section 4.2.4.

(b) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Philippe Gillet

MAIN POSITION WITHIN THE COMPANY: MEMBER OF THE STRATEGY COMMITTEE

Independent director[a] 61 years old Born on 01/26/58 Nationality: French First appointed on: 05/28/2014 Term expires: 2019 Number of bioMérieux shares held: **132**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[b]:* N/A *Outside the Group[b]:* — Director of Berger, Van Berchem & Cie SA (Switzerland) **Directorships and positions that have expired in the past five years** N/A	**Other professional activities and past positions:** *Management experience and expertise:* — Chief Innovation Officer of SICPA — Vice-President for academic affairs (Provost) of the Federal Institute of Technology in Lausanne (Switzerland), from 2010 to 2016 — PhD in Geophysics and Geochemistry and a Doctorate in Earth Science (Ecole Normale Supérieure de Paris) — Director of Ecole Normale Supérieure de Lyon (2003-2007) — Secretary in the French Ministry of Research and Higher Education (2007-2010) *Other directorships and positions:* — Chairman of the Scientific Council of the Ile de France Region — Chairman of the Scientific Council of the INRA — President of the "International Risk Governance Council" Foundation (Switzerland) — Member of the Executive Committee of the BNP Paribas Foundation

(a) Independent director, based on Board of Dirctors' evaluation, see section (4.2.4) .

(b) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Marie-Hélène Habert

MAIN POSITION WITHIN THE COMPANY: MEMBER OF THE HUMAN RESOURCES, APPOINTMENT AND COMPENSATION COMMITTEE

Independent director[a] 53 years old Born on 04/04/1965 Nationality: French First appointed on: 05/30/2012 Term expires: 2020 Number of bioMérieux shares held: **57**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[b]:* N/A *Outside the Group[b]:* — Chair of the Supervisory Board of Groupe Industriel Marcel Dassault SAS[c] — Director of Communication and Patronage of Groupe Industriel Marcel Dassault — Director of Dassault Aviation SA[c] (France -listed company); Dassault Systèmes SA[c] (France-listed company) and Artcurial SA[c]: — Vice-President of the Serge Dassault Foundation — Vice-Chairman, on the Supervisory Board of Immobilière Dassault SA[c] (France-listed company); — Manager of H Investissements SARL and HDH (non-trading company); — Director de SIPAREX — Manager of SCI Duquesne — Member of the Strategy Committee of HDF (SAS) **Directorships and positions that have expired in the past five years** *Within the Group[b]:* N/A *Outside the Group[b]:* — Director of Dassault Développement SA[c] (term expired: 2014)	**Other professional activities and past positions:** *Management experience and expertise:* — Graduate of Université de Paris II (business law), post-graduate diploma in Business law and Taxation from Université de Paris I/La Sorbonne and post-graduate diploma in marketing from IEP Paris

(a) Independent director, based on Board of Directors' evaluation, see section 4.2.4.

(b) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

(c) Companies controlled by GIMD within the meaning of article L.233-16 of the French Commercial Code.

Marie-Paule Kieny

MAIN POSITION WITHIN THE COMPANY: MEMBER OF THE STRATEGY COMMITTEE

Independent director[a] 63 years old Born on 04/24/1955 Nationality: French First appointed on: 08/28/2017 Term expires: 2021 Number of bioMérieux shares held: **180**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[b]:* N/A *Outside the Group[b]:* N/A **Directorships and positions that have expired in the past five years** *Within the Group[b]:* N/A *Outside the Group[b]:* N/A	**Other professional activities and past positions:** *Management experience and expertise:* — Assistant director general of the WHO from 2010 to 2017 — High Performance Boards training at IMD, Lausanne, Switzerland, in 2016 *Other directorships and positions:* — Chair of the Board of the Foundation Drugs for Neglected Diseases Initiative, Geneva, Switzerland (since July 2017) — Chair of the Board of the Medicines Patent Pool; Foundation, Geneva, Switzerland (since September 2017) — Board member of the Human Vaccine Project, New York, US (since October 2017) — Board member of the Global Antibiotics Research & Development Partnership (GARDP), Geneva, Switzerland (since September 2018)

(a) Independent director, based on Board of Directors' evalulation, see section 4.2.4.

(b) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Agnès Lemarchand

MAIN POSITION WITHIN THE COMPANY: MEMBER OF THE AUDIT COMMITTEE

Independent director[a] 64 years old Born on 12/29/1954 Nationality: French First appointed on: 05/28/2014 Term expires: 2019 Number of bioMérieux shares held: **150**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[b]:* N/A *Outside the Group[b]:* — Director of Saint-Gobain (listed company) and Solvay SA (Belgium - listed company) — President of Orchad SAS **Directorships and positions that have expired in the past five years** *Within the Group[b]:* N/A *Outside the Group[b]:* — Member of the Supervisory Board of CGG (listed company – term expired: October 2017) — Member of the Supervisory Board of Areva (listed company – term expired: January 2015) — Member of the Supervisory Board of Vivescia Industries (SCA), representing Bpifrance Participations (term expired: 12/31/2015) — Executive Chairman of Steetley Dolomite Limited (term expired: 2014); — Member of the Economic, Social and Environmental Committee, working in the economic division (term expired: 2014) — Member of the Supervisory Board of Mersen (listed company – term expired: 2013)	**Other professional activities and past positions:** *Management experience and expertise:* — Graduate of the National Chemical Engineering Institute in Paris (ENSCP) and Massachusetts Institute of Technology (US) and holds an MBA from INSEAD — Chief Executive Officer of the French Organic Industry (*Industrie Biologique Française* – IBF) from 1986 to 1991 — Chief Executive Officer of Prodical (Ciments Français Group) from 1991 to 1996 — Strategy Director of Lafarge's specialty materials division from 1997 to 1999 — Chair and Chief Executive Officer of Lafarge's limestone division from 1999 to 2004 — Varied entrepreneurial experience including in management buy-out transactions

(a) Independent director, based on Board of Directors' evaluation, see section 4.2.4.

(b) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Fanny Letier

MAIN POSITION WITHIN THE COMPANY: CHAIR OF THE HUMAN RESOURCES, APPOINTMENT AND COMPENSATION COMMITTEE

Independent director[a] 39 years old Born on 03/15/1979 Nationality: French First appointed on: 05/30/2017 Term expires: 2021 Number of bioMérieux shares held: **30**	**Other directorships and positions held at 12/31/2018 (all companies)** *Within the Group[b]:* N/A *Outside the Group[b]:* — Director of Nexans (listed company) **Directorships and positions that have expired in the past five years** *Within the Group[b]:* N/A *Outside the Group[b]:* N/A	**Other professional activities and past positions:** *Management experience and expertise:* — Graduate of Sciences Politiques Paris, the ENA and the Institut français des administrateurs (IFA) — Civilian director at the French Treasury Department (Ministry of Finance) from 2004 to 2012 — Secretary General of the Inter-Ministry Committee on Industrial Restructuring (CIRI) from 2009 to 2012 — Deputy director of the office of the Minister of Industrial Recovery from 2012 to 2013 — Director then Executive Investment Direction of the SME funds of Bpifrance from 2013 to 2018 *Other directorships and positions:* — Co-founder of GENEO capital entrepreneur in 2019 — Director of Fabrique de l'Industrie — Director of Pacte PME

(a) Independent director, based on the Board of Directors' evaluation,see section 4.2.4.

(b) Any company controlled by Compagnie Mérieux Alliance SAS within the meaning of article L.233-16 of the French Commercial Code (Code de commerce).

Michele Palladino

MAIN POSITION WITHIN THE COMPANY: MEMBER OF THE STRATEGY COMMITTEE

Non-independent director 78 years old Born on 06/13/1940 Nationality: Italian First appointed on: 07/06/2004 Term expires: 2019 Number of bioMérieux shares held: **6,000**	**Other directorships and positions held at 12/31/2018 (all companies)** N/A **Directorships and positions that have expired in the past five years** President and Managing Partner of Michele Palladino & C SAS (term expired: 2010)	**Other professional activities and past positions:** *Management experience and expertise:* — Chief Executive Officer of bioMérieux until 1993

Frederic Besème

MAIN POSITION WITHIN THE COMPANY: CSR MANAGER

Director representing employees 62 years old Born on 09/23/56 Nationality: French First appointed on: 05/17/2018 Term expires: 2022 Number of bioMérieux shares held: **2,780**	**Other directorships and positions held at 12/31/2018 (all companies)** N/A **Directorships and positions that have expired in the past five years** N/A	**Other professional activities and past positions:** PhD in Biology, University of Montpellier INSERM from 1984 to 1987 Since 1987 — R&D Researcher for bioMérieux 1987 to 2002 — Personnel representative, Union delegate, social partner at bioMérieux 1997 to 2016 — CSR Manager since 2016

Professional address of directors

The members of the Board of Directors can be contacted at the Company's registered office in Marcy l'Étoile, France (Rhône).

Limit on directorships

The laws currently in force on the maximum number of directorships are applied within the Company.

Corporate officers' interests in the Company and the Group

In accordance with regulation (EC) No. 809-2004 of April 29, 2004, it is noted that Alexandre Mérieux is one of the main shareholders of Compagnie Mérieux Alliance, a holding of Institut Mérieux, majority shareholder of the Company, of which he holds the majority of the share capital and the voting rights (see section 7.4.1 and 7.4.2).

4.2.4 Independent directors, conflicts of interest and other declarations

Evaluation of the independence of directors

Criteria	Alexandre Mérieux	Philippe Archinard	Jean-Luc Belingard	Frederic Besème	Harold Boël	Philippe Gillet	M-Hélène Habert	M-Paule Kieny	Agnès Lemarchand	Fanny Letier	Michele Palladino
Criteria 1:					✓	✓	✓	✓	✓	✓	✓
Criteria 2:				✓	✓	✓	✓	✓	✓	✓	✓
Criteria 3:	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Criteria 4:	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Criteria 5:	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Criteria 6:		✓		✓	✓	✓	✓	✓	✓	✓	
Criteria 7:	NA	✓		✓	✓	✓	✓	✓	✓	✓	✓
Criteria 8:		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Table prepared based on the information provided by the relevant party.

Criteria 1: Employee corporate officer during the 5 preceding years

Not being or having been during the preceding five years:

° an employee or executive corporate officer of the Company;

° an employee, executive corporate officer, or director of a company that the Company consolidates;

° an employee or executive corporate officer or director of the parent company of the Company or of a company consolidated by this parent company.

Criteria 2: Cross-directorships

Not being an executive corporate officer of a company in which the Company directly or indirectly holds a director seat or within which an employee designated as such or an executive corporate officer of the Company (current or having been one within the last five years) holds the position of director.

Criteria 3: Material business relationships

Not being a customer, supplier, Corporate banker, investment banker, consultant:

° in a significant capacity for the Company or its group;

° or for whom the Company or its group represents a material share of business.

The assessment of the materiality or immateriality of the relationship between the Company or its group is discussed by the Board of Directors and the quantitative and qualitative criteria underlying this assessment (continuity, economic dependence, exclusivity, etc.) are explained in the annual report.

Criteria 4: Family ties

Not having any close family ties with a corporate officer.

Criteria 5: Statutory Auditor

Not having been a Statutory Auditor of the Company during the 5 preceding years.

Criteria 6: Being a director for more than 12 years

Not having been a director of the Company for over 12 years. The loss of status as an independent director occurs on the anniversary date of the twelve years.

Criteria 7: Status of non-executive corporate officer

A non-executive corporate officer cannot considered as being independent if receiving variable compensation in cash, or securities, or any type of compensation linked to the Company's or the Group's performance.

Criteria 8: Status of major shareholder

Directors representing major shareholders of the Company or the parent company may be considered independent as long as these shareholders do not participate in the control of the Company. However, beyond a threshold of 10% of the share capital or the voting rights, the Board, based on a report from the Appointment Committee, systematically evaluates the independence of the director, in view of the composition of the Company's share capital and the existence of a potential conflict of interest.

The Board of Directors, during its meeting of February 26, 2019, reviewed the analysis of the Human Resources, Appointment and Compensations Committee regarding the independence of directors, according to the criteria contained in the AFEP-MEDEF Code. Following deliberations, the Board of Directors confirmed the independence of the following six directors out of the 11 directors on the Board: Harold Boël, Philippe Gillet, Marie-Hélène Habert, Marie-Paule Kieny, Agnès Lemarchand and Fanny Letier.

In particular, the Board of Directors deemed Harold Boël to be independent, despite the fact that he is director of Mérieux NutriSciences Corporation, a US company held by the Institut Mérieux (see section 4.1).

Evaluation of conflicts of interest

The Board of Directors of February 26, 2019 evaluated the potential conflicts of interest that could arise from Harold Boël's directorship at Mérieux NutriSciences Corporation, and has concluded that no conflicts of interest exist. The two companies are independent and each act in different areas. The existing business relations are not likely to call into question their independence. Accordingly, Harold Boël will abstain from discussion and votes held by the Board of Directors regarding any circumstances relating to Mérieux NutriSciences Corporation.

Other than Harold Boël, since the independent directors have no relationship of any kind with the Company, the Group or the Management, there is no conflict of interest which the Board of Directors could be required to discuss.

Other declarations

To the best of the Company's knowledge:

- no member of the Board of Directors of the Company has been convicted of fraud in the past five years;
- no member of the Board of Directors has been involved, in the past five years, in any bankruptcy, court-ordered receivership or liquidation, in their capacity as member of an administrative, management or supervisory body or as Chief Executive Officer;
- no sentence has been pronounced in the past five years against any member of the Board of Directors of the Company barring them from serving on an issuer's administrative, management or supervisory body or from participating in the management or conduct of the affairs of an issuer;
- no member of the Board of Directors of the Company has been charged with an offence or had any official public disciplinary action taken against them by a statutory or regulatory authority (including recognised professional bodies).

To the best of the Company's knowledge, there is no potential conflict of interest between the duties to the Company of any member of the Board of Directors, and their private and/or other interests. The agreements involving certain directors are subject to the procedures concerning related-party agreements and are described in section 7.7.

To the best of the Company's knowledge, no commitments have been undertaken by members of the Board of Directors that restrict their freedom to dispose of their bioMérieux shares, other than the rules on insider trading and closed periods.

4.2.5 Practices and work of the Board of Directors and its committees

4.2.5.1 Participation of the directors in the meetings of the Board of Directors and the committees in 2018

	Board of Directors		Audit Committee		Human Resources, Appointment and Compensation Committee		Strategy Committee	
Directors	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings
Jean-Luc Belingard	100%	5/5	-	-	100%	3/3	100%	1/1
Alexandre Mérieux	100%	5/5	-	-	-	-	-	-
Philippe Archinard	100%	5/5	100%	7/7	-	-	-	-
Harold Boël	80%	4/5	100%	7/7	-	-	-	-
Philippe Gillet	80%	4/5	-	-	-	-	100%	1/1
Frederic Besème[(a)]	100%	2/2						
Marie-Hélène Habert	100%	5/5	-	-	100%	3/3	-	-
Agnès Lemarchand	80%	4/5	86%	6/7	-	-	-	-
Michele Palladino	100%	5/5	-	-			100%	1/1
Fanny Letier	100%	5/5	-	-	100%	3/3	-	-
Marie-Paule Kieny	80%	4/5	-	-	-	-	100%	1/1

(a) Director since May 17, 2018.

4.2.5.2 Practices of the Board of Directors and its internal regulations

The Board of Directors is responsible for defining and implementing the Company's strategies. It has powers to act on all questions concerning the smooth running of the Company and settles all matters affecting the Company by its deliberations, within the limits of the Corporate purpose and subject to the powers expressly granted to Shareholders' Meetings. The Board of Directors carries out all controls and procedures that it deems appropriate.

The Chairman organises and oversees the Board's work and reports thereon to the Shareholders' Meeting. He ensures that the Company's management bodies operate effectively and that the directors are able to perform their duties.

The Chairman of the Board of Directors is responsible for shareholder relations. He therefore works in close cooperation with the Company's Secretary General and the Investor Relations Department. The Chairman reports on his activities to the Board of Directors, where appropriate.

The committees of the Board of Directors are in charge of examining issues assigned to them by the Board of Directors or the Chairman of the Board, preparing the Board of Directors' work on these issues, and reporting their findings to the Board of Directors in the form of reports, proposals, communications or recommendations.

The committees act in an advisory capacity. The Board of Directors determines at its own discretion how to follow up on the findings reported by the committees. Each director remains free to vote as he wishes, without being bound by these studies, investigations or reports. Nor is he bound by any recommendations made by the committees.

At the filing date of this Registration Document, the Board of Directors of the Company had created three committees: the Audit Committee, the Human Resources, Appointment and Compensation Committee and the Strategy Committee, as described in section 4.2.5.6

Internal rules of the Board of Directors

The internal rules, adopted in 2004 by the Board of Directors and intended to define its operating procedures, in addition to legal, regulatory and statutory requirements, are regularly updated to reflect new legal provisions and the recommendations of the AFEP-MEDEF Corporate Governance Code. It is regularly updated. All Board members have agreed to comply with the internal rules.

The internal rules provide that directors must first ensure that they are fully informed of the general and specific obligations attached to their duties and are familiar with securities regulations pertaining to breaches of stock exchange regulations before accepting their duties. They must familiarise themselves and comply with the laws and regulations, the bylaws, the Board of Directors' internal rules and any additional information that the Board of Directors may provide to them, the rules concerning the Board provided for in the AFEP-MEDEF Corporate Governance Code (particularly the rules of ethics for directors) as well as the Global Code of Conduct adopted by the Company.

The internal rules also provide that directors:

(i) represent all the shareholders, even though they are shareholders themselves holding at least ten shares, and must act in the Company's interests in all circumstances;

(ii) must inform the Board of any actual or potential direct or indirect conflict of interest between the interests of the Company and their own interests or those of the shareholder or group of shareholders they represent, and must abstain from voting on the issues concerned;

(iii) undertake to devote the necessary time and attention to their duties;

(iv) undertake to remain independent in their analysis, judgement, decision-making and actions, and to resist all direct or indirect pressure that may be placed on them by directors, specific groups of shareholders, creditors, suppliers and other third parties. Similarly, if they believe that decisions taken by the Board are not in the interests of the Company, they undertake to clearly express their opposition and strive to convince the Board of the merits of their opinion;

(v) must be diligent and participate in all meetings of the Board of Directors and, if applicable, of the committees on which they serve;

(vi) are bound by a strict duty of confidentiality beyond the exercise of discretion required by law with respect to non-public information acquired in connection with their role as directors;

(vii) are bound by a duty of loyalty;

(viii) must trade in the Company's shares only in compliance with the Global Code of Conduct adopted by the Company; and

(ix) provide the Board with all relevant information concerning compensation and benefits-in-kind paid to them by the Company or a Group entity, and their directorships and positions held in all companies and other legal entities, including details on their attendance at all committees of French or foreign companies.

The Board of Directors' internal rules provide that the Board of Directors must decide on (i) the approval of the strategic plans of the Company and its subsidiaries, (ii) the approval of the annual budget and, on a quarterly basis, its implementation, and (iii) the authorisation of all key transactions (acquisitions, exchanges, settlements, granting of security interests, all financing arrangements, etc.) exceeding €30 million and not provided for in the strategic plan or the budget.

The internal rules also provide that the Board of Directors must be notified of any significant event affecting the operation of the Company and more specifically its financial and cash position and commitments.

4.2.5.3 Diversity policy within the Board of Directors and the management bodies

On the recommendation of the Human Resources, Appointment and Compensation Committee, the Board of Directors, pursuant to Article L. 225-37-4, paragraph 6, of the French Commercial Code, has defined a diversity policy that applies to the Board of Directors and management bodies.

Accordingly, the Board of Directors has established a policy of promoting cultural and cross-border diversity among its members; seeking a balance in the distribution of skills, both as regards the age and experience of its members, and their fields of expertise (management, medical or scientific, knowledge of listed companies); and, aiming for a balanced representation of women and men. The purpose of this policy is to provide a balanced and harmonious Board membership facilitating fruitful, varied and high quality discussions to support the Company's interests and strategy.

The Board will endeavour to implement this policy for every reappointment or new appointment.

Nonetheless, it should be noted that the Company does fulfil its legal obligations. In particular, in accordance with Article L. 225-18-1 of the French Commercial Code, the Board of Directors comprises 10 members (plus a director representing employees), of whom four are women: Marie-Hélène Habert, Marie-Paule Kieny, Agnès Lemarchand and Fanny Letier. In addition, in accordance with Article L 225-27-1 of the French Commercial Code, the Company amended its bylaws in 2018 in order to allow the Central Works Council to appoint a director representing employees. Frédéric Besème was appointed to this position during 2018.

Beyond this appointment of a director representing employees, there were no other changes to bioMérieux's governance arrangements during 2018. Nevertheless, the self-assessment process debated by the Board of Directors, demonstrates that the Board operates smoothly and that each director contributes in an effective way (see section 4.2.5.5).

In addition, the Company is committed to strengthening the representation of women within its Executive Committee. It is therefore seeking to develop the skills of women and to promote them, without discrimination, in order to enable them to take up senior positions. The Executive Committee will, as a matter of priority, be refreshed through the appointment of women until parity has been achieved, unless the skills required prevent this.

Finally, the Company supports the balanced representation of women and men in its senior management posts. In particular, women represent around 32% of bioMérieuxs 'employees in the most senior positions (levels 1-6), representing almost 10% of the workforce, compared with around 31% in 2017.

4.2.5.4 Work of the Board of Directors

During the financial year ended December 31, 2017, the Company's Board of Directors met five times and:

- approved the parent company financial statements and the consolidated financial statements for the year ended December 31, 2017 along with the related press release, and prepared the Annual General Meeting, namely by approving the various reports required by law and the description of the share buyback program; approved the interim financial statements and interim financial report, along with the related press release;
- approved the budget;
- reviewed and approved, where applicable, the Business Development opportunities;
- analysed the quarterly reviews of the Company's operations and affairs and major projects;
- took note of the reports and recommendations, if any, of its committees, particularly with regard to the Company's risks;
- studied the Company's sustainable development and CSR policies and met with the independent third party to discuss the CSR report;
- decided the principles and criteria for setting the compensation of the executive corporate officers for the 2018 financial year and the compensation of the corporate officers for the past financial year;
- discussed the Company's policy in terms of equality and equal pay in the workplace;
- heard presentations made to it by members of the Executive Committee regarding their activities (in particular, the Industrial Department);
- reviewed international expansion projects and approved the refinancing of some subsidiaries and the reasons for these transactions;
- reviewed the implementation of new relevant regulations, particularly the general data protection regulation and the Sapin II law; in this respect, it ensured that there was a system to prevent and identify corruption; members were also reminded of the obligations resulting from EU Regulation 596/2014 of April 16, 2014 on market abuse (also known as the "MAR");amended its Chairman and Chief Executive Officer's delegation of authority in relation to sureties, endorsements and guarantees for 2018 and renewed this same delegation for 2019;
- granted free shares to certain Group employees;
- implemented a new share buyback program;
- approved three related-party agreements and performed an annual review of any existing related-party agreements that remained in force during the year.

4.2.5.5 Self-assessment of the Board of Directors and assessment of the effectiveness of the contribution made by each director

In addition, as stipulated in its internal rules, each year the Board of Directors devotes an agenda item to the Board's operations in order to (i) evaluate the quality and effectiveness of the Board's deliberations, (ii) assess the Board of Directors' actual roles and duties, (iii) analyse the reasons for any shortcomings as perceived by the Chairman, directors or shareholders, and (iv) analyse the independence criteria applicable to directors.

At its meeting of February 26, 2019, the Board of Directors carried out a self-assessment based on a questionnaire in which each director was able to state his or her opinion.

- The Board of Directors discussed the responses received and confirmed that its responsibilities and duties were fulfilled and it was operating effectively, both in terms of the standard and effectiveness of its meetings. Areas of improvement are proposed by the Company and, the following year, the Board of Directors ensures they are addressed or continues its efforts, where applicable.
- The directors consider that their access to information concerning the Group and its environment is sufficient, and that such information is of a high quality and is sent to them in a timely manner. A new online resource helps the Board of Directors to communicate more quickly and easily.
- The majority of directors consider that the information provided for the discussion of topics on the agenda is presented with sufficient internal or external analysis on which to base decisions. The Audit Committee appreciates the presentation of the Company's approach to risks and proposes that this topic should also be shared with the Board on a regular basis. The directors appreciate the monitoring of the topics presented to the Board since 2018.
- The directors consider their training to be adequate and also emphasise the need for continued efforts by Management, throughout their term.
- With respect to General Management, directors believe they are fully independent and able to speak freely and appreciate the efforts made by members of the Executive Committee to explain and share knowledge as well as regularly attend meetings. They consider that they have sufficient access to other information than that provided by the General Management, and particularly at the Audit Committee level.

- They deem it important that the independent directors meet outside of these Board meetings, irrespective of the transparency and openness shown by the Management and the standard of discussion at those meetings. As a result, in 2018, a meeting of independent directors was held. These meetings will continue at a frequency to be determined and, at the very least, once a year. These meetings will continue to take place in 2019. They also consider that the independent directors are duly independent (see section 4.2.4).
- The members of the Board committees believe that the committees on which they sit function effectively, and that the frequency with which the committees are held and duration of committee meetings are fully satisfactory. They also express great satisfaction with the standard of work produced by the committees. They appreciate the division of work between the committees and the Board and the high standard of discussion within the committees as well as the effective communication of information. However, improvements in the preparatory work for the Human Resources, Appointment and Compensation Committee would be appreciated. In addition, the strategy presentation during the Strategy Committee meeting, to which all directors had been invited, was welcomed.

Finally, the Board of Directors debated the effectiveness of the contribution made by each director to the work of the Board. Having highlighted the individual and varied skills of each director (scientific, medical, technological, financial and management skills within both listed and unlisted companies) and the complementary nature of its members, the Board of Directors concluded that each member's involvement, in their field of expertise, led to high quality discussions. As a result, their significant personal contributions, as well as regular attendance, are criteria that ensure the smooth running of the Board and the appropriate membership.Moreover, new members consider the induction and training they receive to be satisfactory.

4.2.5.6 Practices and work of the committees of the Board of Directors

The Board of Directors' internal rules provide that the Board of Directors may set up one or more permanent or temporary committees to help it accomplish its work and contribute effectively to the preparation of its decisions.

The committees are in charge of examining issues referred to them by the Board of Directors or the Chairman of the Board, preparing the Board of Directors' work on these issues, and reporting their findings to the Board of Directors in the form of reports, proposals, communications or recommendations.

BIOMERIEUX The committees act in an advisory capacity. The Board of Directors determines at its own discretion how to follow up on the findings reported by the committees. The directors remain free to vote as they choose and are not bound by the committees' studies, investigations or reports, nor by any recommendations they may issue.

Audit Committee

Breakdown

The Audit Committee has three members appointed by the Board of Directors from among its members who are not members of the Company's Management. It consists of a majority of independent directors.

At December 31, 2018, the Audit Committee, which was created in 2002, had three members: Harold Boël, the Chairman, Agnès Lemarchand and Philippe Archinard. Harold Boël and Agnès Lemarchand are independent directors within the meaning of the Board of Directors' internal rules. Two-thirds of the committee are therefore independent members.

All of the committee's members have specialised financial or accounting expertise. Agnès Lemarchand, Harold Boël and Philippe Archinard each possess "financial or accounting expertise" as set out in article L.823-19 of the French Commercial Code (*Code de commerce*) and in the AMF's July 22, 2010 working group report on Audit Committees. They acquired this expertise through their general management experience in major industrial groups (in the case of Agnès Lemarchand and Harold Boël) and in pharmaceutical groups (in the case of Philippe Archinard).

Practices - Missions

The committee meets (including by conference calls) as often as it deems necessary and at least twice a year, before the review by the Board of Directors of the annual and interim financial statements. The Audit Committee appoints a Chairman from among its members, who may hold a directorship but no management or other position as corporate officer within the Company or the Group. Depending on the points on its agenda, the Audit Committee invites members of the Finance, Internal Audit, Risk and Compliance, and Investor Relations Departments, or the Statutory Auditors and exceptionally General Management, to its meetings. External experts may be called upon as required. In consultation with the Chairman of the Board of Directors, the Audit Committee is provided with all of the resources it considers necessary to properly perform its duties.

Pursuant to the Board of Directors' internal rules, as modified in 2016 to take into account the audit reform within the European Union applicable as of June 17, 2016, the Audit Committee's duties are to assist the Board of Directors. It is primarily responsible for (i) ensuring the monitoring of the preparation of financial information, (ii) ensuring the effectiveness of internal control and risk management systems as well as the internal audit, (iii) making a recommendation on the Statutory Auditors proposed for appointment by the Shareholders' Meeting, (iv) monitoring the Statutory Auditors' performance of their duties, (v) monitoring the independence of the Statutory Auditors, (vi) approving the provision of services other than the statutory audit and (vii) reviewing the draft financial press releases in particular relating to the interim financial statements and quarterly sales.

Work

The Audit Committee meets between one and four days before the Board of Directors' meeting held to approve the annual and interim financial statements and prepares a systematic report on its meeting. It met seven times in 2018.

The Audit Committee reviewed the annual and interim financial statements, including the notes thereto and the year-end accounting options and off-balance sheet commitments as well as the scope of the consolidated companies, as presented by the Company's Chief Financial Officer. It reviewed press releases relating to fourth-quarter 2017 sales, the annual financial statements for 2017, the 2018 interim financial statements and sales for the first, second and third quarters of 2018. The committee also reviewed the draft of the Registration Document including the management report, the Chairman's report

on the internal control procedures and the Company's CSR report as well as the work of the third party entity regarding CSR. The Audit Committee reviewed the Company's exchange rate policy and its implementation, as well as the strategy for managing excess cash. It also reviewed the budget process. It examined the results of internal audit assignments as well as the reports issued by the Internal Audit, Risk and Compliance Department. It also examined the action plan of the current year. It was informed about the 2018 action plan implemented by the Ethics and Compliance Department (including the roll-out of the Sapin II law and general data protection regulation). More generally, it regularly reviewed the structure of the Internal Audit, Risk and Compliance Department and the work it carries out. It also reviewed the crisis management process. It reviewed the updates to the risk map, including financial and non-financial risks and the methodology used. It studied the IT security system. It reviewed the refinancing of some subsidiaries and the reasons for these transactions. It also approved the changes to the investor calendar for 2019. It also studied the process office activities of the Financial Department. Having interviewed one of the joint Statutory Auditors whose appointment was coming to an end following the 2018 General Meeting, the Committee recommended that the Board renew the latter's appointment. Finally, the Audit Committee pre-approved the services performed by the Statutory Auditors other than the certification of the financial statements and approved, on a case-by-case basis, specific assignments.

The Audit Committee pre-approved the services performed by the Statutory Auditors other than the certification of the financial statements.

The Statutory Auditors issued a detailed report on their audit engagement relating to the annual and interim financial statements and on auditor independence, and regularly informed the Audit Committee of changes in accounting rules and legal regulations.

The Statutory Auditors also held private discussions with the members of the Audit Committee.

Human Resources, Appointment and Compensation Committee

Breakdown

Pursuant to the Board of Directors' internal rules, the Human Resources, Appointment and Compensation Committee comprises three members appointed by the Board of Directors from among its members. It consists of a majority of independent directors.

The Board of Directors set up the Compensation Committee in 2004 and changed the committee's roles and responsibilities in 2010 by including human resources functions. As a result, it became the Human Resources, Appointment and Compensation Committee.

At December 31, 2018, the Human Resources, Appointment and Compensation Committee was composed of Fanny Letier, who chairs the committee, and Marie-Hélène Habert and Jean-Luc Belingard. Marie-Hélène Habert and Fanny Letier are independent directors within the meaning of the Board of Directors' internal rules. Two-thirds of the Human Resources, Appointment and Compensation Committee are therefore independent members. In addition, the Chairman and Chief Executive Officer is involved in the committee's work on the selection and appointment of directors as well as on the compensation policy applicable to the main non-officer executives.

Practices - Missions

The Human Resources, Appointment and Compensation Committee meets at least once a year. Meetings are called by the Chairman of the Board of Directors.

With respect to appointments, the committee is responsible for making recommendations on the composition of the Board after considering all relevant information prior to making a decision: desirable balance in Board membership to reflect the Company's shareholding structure, identifying and evaluating possible candidates, and renewal or non-renewal of terms of office. In particular, the committee defines and implements the procedure for selecting future independent directors and reviews potential candidates before any action is taken in their regard.

The committee must establish a succession plan for executive corporate officers to fill any unforeseen vacancy.

With respect to the compensation, the Committee is primarily responsible for (i) making recommendations to the Board of Directors concerning fixed and variable compensation, supplementary and specific pension and personal protection plans, benefits in kind and other financial benefits to which the Chairman and Chief Executive Officer and, where applicable, the Chief Operating Officer, may be entitled; (ii) recommending to the Board an overall amount of directors' fees, as well as rules governing the distribution of such fees and the individual amounts payable to each director based on their attendance record at Board meetings and committee meetings; and (iii) where applicable, proposing to the Board of Directors the rules governing the variable portion of corporate officers' compensation and ensuring that these rules are applied. The Human Resources, Appointment and Compensation Committee is also informed of the compensation policy applicable to the main non-officer executives.

With respect to stock options and free share grants, where appropriate, the committee submits to the Board of Directors its observations regarding the Company's stock option and free share plans proposed by the Chairman and Chief Executive Officer and makes recommendations on the different categories of beneficiaries. The options or free shares granted to corporate officers are examined on a case-by-case basis by the committee.

Work

The Human Resources, Appointment and Compensation Committee met three times in 2018. The principal topics discussed during these meetings were as follows: the review of the renewal of the appointments of six directors and the introduction of staggered terms of office; the arrangements for appointing the director representing employees; succession plans, the review of the criteria for awarding variable compensation of executive corporate officers; the 2018 compensation policy of executive corporate officers; and the compensation policy for members of the Executive Committee (including the fixed and variable portions) used for 2018.

In addition, other topics were debated and approved by the Committee, including: annual salary negotiations; the Group's compensation policy (approval of the matrix of variable compensation applicable to employees in respect of the 2018 financial year and the application of a multiplier coefficient of 130% applicable in 2017); the amount of 2017 profit-sharing together with the additional profit-sharing element that will be distributed in a fair way; the introduction of retention plans, employee share ownership plan and share grant plans; the retention plan known as the long-term incentive

plan, the policy implemented for identified talent pool individuals and the succession plan; and the assessment of directors' independence.In 2018, there were no changes to the total budget for directors' fees and its allocation between the Committees.

The Strategy Committee

Breakdown

The Strategy Committee was created on December 15, 2017. Pursuant to the Board of Directors' internal rules, this committee comprises at least three members appointed by the Board of Directors from among its members. A Chairman ensures the proper operation of the committee.

At December 31, 2018, the members of this committee were Marie-Paule Kieny, Michele Palladino, Philippe Gillet and Jean-Luc Belingard, its Chairman.

Practices - Missions

The committee meets as often as it deems necessary and at least once a year, when convened by the Chairman. The committee may invite members of the Company's management and may also call upon external experts.

The Strategy Committee's purpose is to discuss the main strategic topics with General Management, particularly changes in the technological, medical and market environments, and to guide the strategic choices of the Company, both in terms of technologies and its business model.

Work

The committee met once during 2018 in a meeting including all directors to discuss the Company's strategic plan.

In accordance with its operating rules, the Strategy Committee reports to the Board of Directors regarding the performance of its tasks and will provide any observations it deems useful.

4.2.6 Mission and composition of the Executive Committee

The Executive Committee is responsible for implementing decisions validated by the Board of Directors regarding the Company's general strategy. The committee is responsible for overseeing strategic projects, deciding on priorities and implementing the necessary resources within the Company's various departments, such as deciding on significant capital expenditure (property, plant and equipment or intangible assets). It meets once every three months. At each meeting, the committee reviews the Company's operations as well as its regulatory and quality management, financial situation, and sales and workforce, and monitors the Group's major projects. It also meets every month using telepresence technology.

It is chaired by Alexandre Mérieux, Chairman and Chief Executive Officer, and consists of:

- Michel Baguenault – Corporate Vice President, Secretary General;
- Guillaume Bouhours – Corporate Vice President, Finance, Purchasing and Information Systems;
- Pierre Boulud – Corporate Vice President, Asia-Pacific Region, Investments and Strategic Planning;
- Nicolas Cartier – Corporate Vice President, Industrial Microbiology unit;
- Pierre Charbonnier – Corporate Vice President, Global Quality, Manufacturing & Supply Chain;
- François Lacoste – Corporate Vice President Clinical unit;
- Valérie Leyldé - Corporate Vice President of Human Resources and Communication;
- Mark Miller – Chief Medical Officer;
- Yasha Mitrotti – Corporate Vice President of the Europe, Middle East, Africa Region & Worldwide Sales Performance;
- Randy Rasmussen – Corporate Vice President, Molecular Biology;
- Kirk Ririe – Corporate Vice President, Innovation ; and
- Stefan Willemsen – Corporate Vice President, Americas Region.

4.3 Directors' compensation and benefits

The information and tables set out in this section were prepared in accordance with the AFEP-MEDEF Corporate Governance Code and its user guide and comply with AMF recommendation No. 2012-02 (updated November 30, 2018), "Corporate governance and executive compensation in companies referring to the AFEP-MEDEF Code – Consolidated presentation of the recommendations contained in the AMF annual reports" and AMF recommendation No. 2009-16 (updated April 13, 2015), "Guide for the preparation of Registration Documents".

4.3.1 Summary of directors' fees

The maximum amount of directors' fees paid to directors is €400,000 per year, in accordance with the 11th resolution of the Ordinary General Meeting of May 30, 2017 (for the financial year ended on December 31, 2017).

For the financial year ended December 31, 2018, the distribution rules for directors' fees, established by the Board of Directors meeting of December 15, 2017, upon the recommendation of the Human Resources, Appointment and Compensation Committee, are the following:

In euros	Annual fixed amount*	Variable amount *(per meeting and per director)*
Board of Directors	5,000	5,000
Audit Committee	2,000	4,000
Human Resources, Appointment and Compensation Committee	2,000	3,000
Strategy Committee	2,000	3,000

* *Calculated pro rata to the number of months in office of the directors.*

In accordance with the AFEP-MEDEF Corporate Governance Code, the variable portion linked to directors' rate of attendance or participation on the Board of Directors or a committee is greater than the fixed portion.

SUMMARY OF DIRECTORS' FEES (TABLE 3)

Board members	Directors' fees paid in 2018 (in euros)	Directors' fees paid in 2017 *(in euros)*
Alexandre Mérieux[(a)]	25,000	25,000
Philippe Archinard	55,000	51,000
Jean-Luc Belingard	41,000	25,000
Harold Boël	55,000	51,000
Philippe Gillet	30,000	27,000
Marie-Hélène Habert	36,000	28,000
Marie-Paule Kieny	30,000	11,667
Agnès Lemarchand	46,000	55,000
Fanny Letier	36,000	12,917
Alain Mérieux	Not applicable	17,667
Michele Palladino	30,000	33,000
Frédéric Besème[(b)]	13,123	Not applicable
TOTAL	**397,123**	**337,250**

(a) Alain Mérieux has been the Founding Chairman since August 28, 2017 and has not received any directors' fees since this date.
(b) Frédéric Beseme has been a director since May 17, 2018 as director representing the employees.

The directors did not receive any directors' fees in respect of any directorship held within Company subsidiaries.

4.3.2 Compensation policy

This section specifies (i) the principles and criteria for the determination, distribution and allocation of the fixed, variable and exceptional components of total compensation and the benefits-in-kind of the executive corporate officers of the Company for the 2019 financial year, namely the Chairman and Chief Executive Officer and the Chief Operating Officers, where applicable, as well as (ii) the variable or exceptional compensation components allocated during the financial year ended December 31, 2017 to the same executives. This section was written in application of the provisions of article L.225-37-2 of the French Commercial Code and is included in the report on Corporate governance referred to in articles L.225-100 *et seq.* of the French Commercial Code (*Code de commerce*). These principles were decided by the Board of Directors meeting of February 26, 2019, upon the recommendation of the Human Resources, Appointment and Compensation Committee. It will be subjected to a vote during the Annual General Meeting of May 23, 2019.

4.3.2.1 Principles and criteria for the determination of the compensation of executive corporate officers for the 2019 financial year

General principles

The Human Resources, Appointment and Compensation Committee and the Board of Directors analyse the overall compensation for executive corporate officers taking into account all of the components:

- fixed portion;
- annual variable portion;
- deferred variable portion;
- multi-annual variable portion;
- if applicable, extraordinary compensation;
- entirely conditional stock option plans and performance shares;
- directors' fees;
- benefits-in-kind;
- termination benefits; and
- supplementary pensions.

The Human Resources, Appointment and Compensation Committee and the Board of Directors take into account:

- the Company's interest and strategy;
- the performance and development of the Company and the executive, on an annual and multi-annual basis;
- the compensation policy for all the Group's senior executives;
- the compensation paid directly by Institut Mérieux, if any;
- analysis of market practices which allow them to compare the level and structure of executive compensation with that in force in other SBF 120 companies of a similar size (compensation level and trends, respective position and weight of each component of compensation) and in international companies operating in similar businesses; and
- if applicable, specific situations that may give rise in exceptional circumstances to extraordinary compensation.

The elements are reviewed on a yearly basis;

Moreover, the Human Resources, Appointment and Compensation Committee and the Board of Directors have decided:

- that no benefits in connection with a non-compete clause will be paid in the event of departure; and
- that no additional compensation will be paid by a Group subsidiary outside of directors' fees.

Fixed compensation

Fixed compensation for executive corporate officers is determined by taking into account the level and difficulty of responsibilities, experience in the function and area of the Company's business, seniority in the Group and practices in force in groups or companies of a similar size.

Fixed compensation may only be reviewed at fairly long intervals – in theory every two or three years – excluding the overall pay review for all Company employees and barring exceptional events.

In addition to their functions within the Company, the executive corporate officers can exercise functions within the Institut Mérieux, for which they may be paid under the terms of an employment contract or mandate. This compensation is not rebilled to bioMérieux. The compensation paid directly by Institut Mérieux is therefore excluded from the Shareholders' Meeting's vote.

Annual variable compensation

Principle applied in the Company

The same caps and rules apply to the variable portion of compensation payable to executive corporate officers as apply to compensation for all Company employees.

The variable portion is expressed as a percentage of basic pay at December 31 of the year. This percentage depends on the grade of the employee. It represents a theoretical target for the variable portion in the event that the employees achieve 100% of their objectives. For the purpose of calculating variable compensation, a maximum achievement rate of 120% is applied.

The Company's multiplier coefficient is then applied (applicable to all French and US employees excluding sales teams, and "Global Leaders") according to a matrix defined annually in accordance with the achievement of growth, revenue, and contributive operating income before non-recurring items objectives (MBO matrix). This matrix presents 10 levels of revenue growth and nine levels of contributive operating income before non-recurring items. The intersection of each of these variables defines the percentage of the multiplier coefficient. This matrix, which is approved by the Human Resources, Appointment and Compensation Committee and the Board of Directors, defines a minimum multiplier coefficient of 70% and a maximum of 150% in 2019.

This coefficient is approved by the Human Resources, Appointment and Compensation Committee and the Board of Directors, and may reach a maximum of 140% in 2018.

Thus, the amount of variable compensation cannot exceed 168% of the reference salary at December 31, 2018.

Variable compensation is calculated as follows:

Fixed compensation at December 31 x target bonus x % achievement rate x Company coefficient

Specific application to executive corporate officers

For executive corporate officers, objectives are set for the financial year. These objectives take into account the performance criteria selected based on the Company's strategy.

They comprise quantitative and qualitative targets which are reviewed each year and defined according to the strategic priorities set for the Group. In 2019, the targets will be as follows:

- the Group's quantitative financial targets, based on the budgeted growth of revenue and contributive operating income before non-recurring items, representing 60% of the variable target. The Board of Directors will assess the achievement criteria for this target by applying the MBO matrix; and
- the qualitative targets representing 40% of the variable target. They comprise criteria related to strategy for 60%, taking into account the implementation of the Company's roadmap (acquisitions and transformation projects, in particular Global Commercial Performance and Global Customer Service), to improving results in the CSR area (environment and diversity) for 15%, and progressing R&D projects for 25%. The Company considers the detail of these criteria to be confidential.

The extent to which the objectives have been met ("achievement rate") and the amount of variable compensation are determined by the Board of Directors based on a recommendation of the Human Resources, Appointment and Compensation Committee during the meeting held to approve the financial statements for the year. The Chairman and Chief Executive Officer is not present when the Board of Directors discusses his performance.

Deferred variable compensation

The Board of Directors may decide upon a variable compensation component that is based on qualitative and quantitative criteria and subject to continued employment by the Company. In 2019, no deferred variable compensation will be offered to the Chairman and Chief Executive Officer.

Multi-year variable compensation

Multi-year variable compensation may be granted to executive corporate officers. In 2019, no variable multi-year compensation will be offered to the Chief Executve Officer.

Extraordinary compensation

Executive corporate officers may benefit from extraordinary compensation in the event of specific performance or the particularly successful implementation of certain projects by these executives. In 2019, no extraordinary compensation will be offered to the Chief Executive Officer.

Stock option plans and performance shares

General principles

The level of shares awarded takes into account all of the elements used to determine the executive corporate officers' compensation as well as the market practices adopted by comparable listed companies.

Generally speaking, the respective proportion of stock options and performance shares awarded varies in line with the grade and performance of the beneficiaries, with the proportion of stock options increasing with the beneficiary's degree of responsibility and performance.

Under IFRS 2, the value of any share-based payment award is limited to one year of fixed and target variable compensation, with the target variable corresponding in this case to the compensation due when the beneficiary has an achievement rate of 100%. The total amount of annual awards to corporate officers must not exceed 2.5% of the total compensation pool approved by the Shareholders' Meeting for stock option and free share grants within the Group, or 5% of the annual total award (calculated where applicable in equivalent stock options for combined stock option and performance share grants).

Balance and proportionality

The conditions for the award and exercise of stock options and for the award and vesting of performance shares for executive corporate officers are contingent on demanding and appropriate internal and/or external performance criteria, which must be met over several consecutive years. The share-based payment plan formally states that executive corporate officers must be employed by the Group at the end of the vesting period in order to exercise their options or for their performance shares to vest.

Total stock option and performance share awards represent a low percentage of equity.

Mandatory holding period ("lock-up") for shares awarded by the Company

In accordance with French law and with the AFEP-MEDEF Corporate Governance Code, the Board of Directors sets the number of shares that corporate officers are required to hold:

- for performance shares, executive corporate officers must hold a number of shares equal to 40% of the performance shares, that will ultimately be awarded upon expiry of the vesting period;
- for stock options, executive corporate officers must hold a number of shares resulting from each exercise of options equal to 40% of the theoretical net capital gain (after tax and social security levies) calculated at the option exercise date.

The mandatory holding requirement will cease to apply three years after the award or at the end of the corporate officer's term of office.

Given the restrictive holding requirement set, it was not considered appropriate to require the executive corporate officers to purchase a specific quantity of shares in the Company when their performance shares become available, as recommended by the AFEP-MEDEF Corporate Governance Code.

The executive corporate officers are required to hold their shares in registered form, whether they are subject to the holding requirement or not.

The Group's internal Code of Conduct aimed at preventing insider trading forbids any sale of the Company's shares for a period of 30 calendar days preceding the date of publication of the Company's annual and interim financial statements (or 21 calendar days preceding the publication of quarterly information). This requirement to refrain from trading in the Company's shares expires one day after the clear publication of privileged information (*e.g.*, in an official press release). During authorised trading periods, the Legal Department should be

consulted in the event of any doubt about a possible transaction. In accordance with the AFEP-MEDEF Corporate Governance Code, executive corporate officers may not exercise the options allocated to them during these closed periods, even when the exercise of options is not followed by a sale of shares.

The directors' share grant plans, like all of those implemented within the Company, expressly state that it is prohibited to corporate officers to perform financial transactions that would have the effect of hedging the risk inherent to these shares. The ban applies for the whole vesting period and, if relevant, any lock-up period.

In 2019, no stock options or performance shares will be granted to the Chairman and Chief Executive Officer.

Other components of compensation and benefits-in-kind

Directors' fees

Directors' fees paid to executive corporate officers are part of the pool approved by the General Meeting and are the same as those paid to the other directors. Their allocation is defined by the Board of Directors and comprises a fixed portion, and a variable portion, specific to each Board and committee. Their payment depends on the executives' attendance on the Boards (they are not members of any committees).

Supplementary pensions

Supplementary pensions for executives are the same as those for Company managers, *i.e.* a so-called "article 83" defined contribution plan.

Benefits-in-kind

Executive corporate officers are provided with a Company car.

The Chairman and Chief Executive Officer receives a Company car provided by the Institut Mérieux that is not re-billed to bioMérieux. This item is therefore excluded from the vote of the 2019 Annual General Meeting.

Termination benefits

The Board of Directors may decide to allocate termination benefits according to market conditions and according to the rules of the AFEP-MEDEF Corporate Governance Code.

The Chairman and Chief Executive Officer does not benefit from termination benefits.

4.3.2.2 Components of the compensation of executive corporate officers for the 2018 financial year

Alexandre Mérieux in his role as Chairman and Chief Executive Officer

Components of compensation due or granted in respect of 2017	Amounts or accounting value subject to vote	Presentation
Fixed compensation	€504,202	The total fixed compensation for 2018 was paid by Institut Mérieux (€83,369 not subsequently re-billed) and bioMérieux (€420,833). This compensation was the re-assessed as at June 1, 2018.
Annual variable compensation	€756,000	The Chairman and Chief Executive Officer's variable compensation is reviewed annually by the Board of Directors, without him being present, on the basis of a recommendation from the Human Resources, Appointment and Compensation Committee and based on his performance. — The predefined quantitative targets are based on the Company's financial performance announced to the market at the beginning of the year (revenue growth and contributive recurring operating income). The Board of Directors, in light of the Company's performance compared with the information provided to the market, considered that this target had been met at a level of 120%. — The predefined qualitative targets are based on the individual performance of Alexandre Mérieux within the Company. They represent a portion of 50% of his annual variable compensation. In particular, three criteria were used by the Board of Directors in 2018: the completion of acquisitions for 50%, the improvement in the risk management process for 30% and CSR for 20%. The Board of Directors, which met in February 2019, considered that each of these three criteria had been fulfilled at a level of 120%, notably because of: • acquisitions: two were completed in 2018, one of which was highly complex; • risk management: regionalisation of risks (putting in place local officers and synchronisation with the Group's risk map), finalised crisis management process, overall risk management improved with the introduction of indicators and identification of emerging risks; • CSR: improvement in the environmental indicators, improvement in the EcoVadis rating. All variable compensation for a given year is paid during the following year by bioMérieux. The amount of variable compensation awarded to Alexandre Mérieux for 2018 in respect of his duties as Chairman and Chief Executive Officer was set at €756,000 (representing 168% of his fixed compensation at December 31, 2018 in respect of his duties within bioMérieux), calculated based on an achievement rate of 120% and application of the Company's 140% coefficient for 2018.
Deferred variable compensation	N/A	Alexandre Mérieux does not receive any deferred variable compensation.
Multi-year variable compensation	N/A	Alexandre Mérieux does not receive any multi-year variable compensation.
Extraordinary compensation	N/A	Alexandre Mérieux does not receive any extraordinary compensation.
Stock options, performance shares and other long-term compensation	Stock options = N/A Shares = N/A compensation = N/A	No stock options were granted during 2018. Alexandre Mérieux does not receive any performance shares.
Directors' fees	€25,000	Alexandre Mérieux receives directors' fees in accordance with the terms and conditions set by the Board of Directors.
Value of benefits-in-kind	€7,692	Alexandre Mérieux has the use of a Company car provided by Institut Mérieux.
Termination benefits	N/A	Alexandre Mérieux does not receive any termination benefits.
Benefits in connection with a non-compete clause	N/A	Alexandre Mérieux does not receive any benefits in connection with a non-compete clause.
Supplementary pension plan	€17,271	Alexandre Mérieux is eligible for a supplementary pension plan with the following characteristics: defined contribution pension in accordance with article 83 to which the Company contributes up to salary bracket C on behalf of bioMérieux (€16,360) and Institut Mérieux (€912).

4.3.2.3 Information required on the corporate officers for the Registration Document

SUMMARY OF COMPENSATION, STOCK OPTIONS AND FREE SHARES GRANTED (TABLE 1)

to Alexandre Mérieux, Chairman and Chief Executive Officer of bioMérieux

In euros	2018	2017
Compensation for the year	1,292,894	1,087,629
Value of stock options granted during the year	0	0
Value of performance shares granted during the year	0	0
Value of the other long-term compensation plans	0	0
TOTAL	**1,292,894**	**1,087,629**

SUMMARY OF COMPENSATION, STOCK OPTIONS AND FREE SHARES GRANTED (TABLE 2)

to Alexandre Mérieux, Chairman and Chief Executive Officer

	Amounts paid for 2018		Amounts paid for 2017	
	Due	Paid	Due	Paid
Fixed compensation (bioMérieux)	420,833	380,000[c]	380,000	380,000
Fixed compensaton (Institut Mérieux)	83,369	83,369	82,137	82,137
TOTAL FIXED COMPENSATION	504,202	463,369	462,137	462,137
Variable compensation (bioMérieux)[a]	756,000	592,800	592,800	592,800
Variable compensation (Institut Mérieux)	0	0	0	0
Extraordinary compensation	0	0	0	0
TOTAL VARIABLE COMPENSATION	756,000	592,800	592,800	592,800
Target variable compensation as a %i of total compensation (bioMérieux portion only)	100%	100%	100%	100%
Actual variable compensation in %	168%	156%	156%	156%
Maximum variable compensation	168%	168%	162%	156%
Directors' fees	25,000	25,000	25,000	25,000
Benefits-in-kind	7,692	7,692	7,692	7,692
TOTAL	1,292,894	1,088,861	1,087,629	1,087,629
Value of stock options granted during the year	N/A	N/A	N/A	N/A
Value of performance shares granted during the year	N/A	N/A	N/A	N/A

(a) Variable compensation is calculated based on the reference fixed compensation at December 31, i.e. €450,000. All percentages are calculated on this basis whe n they concern amounts payable for the financial year. Maximum variable compensation for 2018 takes into account the 2018 multiplier coefficient of 140% applicable to all employees.

(b) Company car provided by Institut Mérieux.

(c) The gross annual compensation approved by the General Meeting od May 26, 2018, of €450,000, was not implemented for 2018. It was subjected to a retroactive over the 2019 financial year.

SUMMARY OF THE INFORMATION PRESENTED ABOVE (TABLE 11)

	Employment contract[a]		Supplementary pension plan[b]		Indemnities or benefits due or likely to be due as a result of a termination or change of office		Indemnities relating to a non-compete clause	
Executive corporate Officers	Yes	No	Yes	No	Yes	No	Yes	No
Alexandre Mérieux Chairman and Chief Executive Officer First appointment as director: 04/16/2004 Term expires: at the end of the 2022 AM		✓	✓			✓		✓

(a) Alexandre Mérieux receives compensation paid by Institut Mérieux which is not re-billed to bioMérieux. He does not have an employment contract with bioMérieux for his compensation as executive corporate officer.

(b) Alexandre Mérieux benefits from a supplementary pension plan as part of his compensation paid by Institut Mérieux. This compensation has the following characteristics: defined contributions pension as per Article 83 to which the Company contributes up to salary bracket C. Alexandre Mérieux also benefits from a supplementary pension plan as part of his compensation paid by bioMérieux.

TABLE ON DIRECTORS' FEES AND OTHER COMPENSATION RECEIVED BY NON-EXECUTIVE CORPORATE OFFICES (TABLE 3)

to Philippe Archinard – director

As of April 1, 2015, a portion of Philippe Archinard's compensation is paid directly by Transgène, which explains the decrease in the portion paid by Institut Mérieux. The portion paid by Institut Mérieux, as the director of its Immunotherapy division, is rebilled in part to bioMérieux within the scope of the service agreement between the two companies.

His gross variable compensation is based on his individual performance assessed against objectives set at the beginning of the year and is paid in the following year.

In euros	Amounts paid for 2018	Amounts paid for 2017
Directors' fees[a]	55,000	51,000
Other compensation[b]	281,860	271,934
TOTAL	**336,860**	**322,934**

(a) As a director of bioMérieux. No directors' fees are paid to Philippe Archinard for his directorship within Institut Mérieux.

(b) Compensation paid by Institut Mérieux:

- *in 2018, €135,074 in fixed compensation, €135,000, in variable compensation, and €8,856 in benefits-in-kind, amd €2,929 for Article 83;*
- *in 2017, in fixed compensation, €133,078 in fixed compensation, € 130,000, in variable compensation and, 8,856 in benefits,*

to Jean-Luc Bélingard - director

Jean-Luc Bélingard is a director and Vice-Chairman of Institut Mérieux. The portion paid by Institut Mérieux is re-billed in part to bioMérieux within the scope of the service agreement between the two companies, because of its contribution to strengthening the role of medical diagnostics in France and abroad.

In euros	Amounts paid for the 2018 financial year	Amounts paid for the 2017 financial year
Directors' fees (a)	41,000	25,000
Other compensation (b)	132,848	1,252,424
TOTAL	**173,848**	**1,277,424**

(a) As a director of bioMérieux. No directors' fees are paid to Jean-Luc Bélingard for his directorship within Institut Mérieux.

(b) Compensation paid:

- *in 2018, by Institut Mérieux, €120,000 in fixed compensation, €10,433, as benefits in kind, €2,415 in respect of Article 83;*
- *in 2017 (i) by bioMérieux, in respect of his duties as Chairman and Chief Executive Officer up to December 15, 2017, €500,498 in fixed compensation, and €1,252,424 in variable compensation, and (ii) by Institut Mérieux, €375,323 in fixed compensation, and €16,468 as benefits in kind.*

It should also be noted that Jean-Luc Bélingard receives performance shares from the Company as described below.

Number and date of plan	Number of shares granted during the year	Value of shares according to the method used for the consolidated financial statements [a]	Acquisition date	Availability date
May 26, 2016	60,000 [b]	€2,394,000	May 26, 2019	At the end of Jean-Luc Bélingard's term of directorship

(a) At the share allocation date (May 26, 2016), according to IFRS 2 accounting method.

(b) Quantity updated from the 2016 Registration Document following the stock split that took place on September 20, 2017.

(c) Presence conditions and performance criteria. Performance criteria incorporate (i) 50% qualitative criteria, taking into account the integration of BioFire, and (ii) 50% quantitative criteria, relating to the improvement of the Group's contributive operating income before non-recurring items in 2016 and, as of 2017, free cash flow (FCF). If the 2016 contributive operating income before non-recurring items, on a like-for-like basis, is greater than or equal to the 2015 contributive operating income before non-recurring items, one third of the quantitative criteria will be validated; if the 2017 FCF, on a like-for-like basis, is higher than the 2016 FCF, one third of the quantitative criteria will be validated; if 2018 FCF, on a like-for-like basis, is higher than 2017 FCF, one third of the quantitative criteria will be validated. Certain qualitative performance criteria are kept confidential for strategic reasons.

The Board of Directors meeting on February 26, 2019 approved the presence and performance conditions set out above. The shares will be vested and accordingly delivered to Jean-Luc Bélingard on May 26, 2019.

to Frédéric Besème - director representing employees

Frédéric Besème is CSR Manager within bioMérieux.

In euros	Amounts paid for the 2018 financial year	Amounts paid for the 2017 financial year
Directors' fees (a)	13,123	Not applicable
Other compensation (b)	87,477	85,697
TOTAL	**100,600**	**85,697**

(a) As a director of bioMérieux.
(b) Compensation paid by bioMérieux in respect of his employment contract:
- *in 2018, €76,545 in fixed compensation, €9,878 in variable compensation and €1,054 for Article 83;*
- *in 2017, €75,731 in fixed compensation, €8,781 in variable compensation and €1,185 for Article 83.*

Other directors

In 2018, the Company's other directors did not receive any compensation or benefits-in-kind from the Company, companies controlled within the meaning of article L.233-16 of the French Commercial Code, or the company that controls the Company in which the director's term of office is served, within the meaning of said article, except for the above-mentioned directors' fees.

OTHER TABLES REFERRED TO IN AMF RECOMMENDATION NO. 2009-16 THAT ARE NOT INCLUDED IN THIS DOCUMENT

Table 4 (Subscription or purchase options awarded during the year to each executive corporate officer by the issuer and by any Group company), table 5 (Subscription or purchase options exercised during the year by each executive corporate officer), table 6 (Performance shares awarded during the financial year to each executive corporate officer by the issuer or any Group company) and table 7 (Performance shares that have become available during the year for each executive corporate officer) are not required as no stock options have been granted or exercised by the executive corporate officers and no performance shares became available during the year.

Table 8 (Past awards of subscription or purchase options) and table 9 (Subscription or purchase options granted to the top 10 grantees other than corporate officers and options exercised by them) are not required as no stock options or performance shares were awarded by the Company to corporate officers/executive corporate officers.

Table 10 (Past free share grants) is shown in section 7.4.3.3.

4.3.3 Commitments made in favour of corporate officers

In 2018, the Company made no other commitments whatsoever to its corporate officers regarding compensation, indemnities or benefits due or likely to be due in connection with their appointment, termination or change of office or subsequent thereto.

4.3.4 Loans and securities granted to corporate officers

N/A.

4.3.5 Amounts provisioned or recognised by the Company or its subsidiaries for the payment of pensions, retirement or other benefits

N/A.

4.4 Internal control and risk management procedures regarding the preparation and processing of accounting and financial information

Internal control is a process implemented by the Board of Directors, senior management and employees designed to provide reasonable assurance that the following objectives are achieved:

- consistency of operations with General Management's directives;
- reliability of financial information;
- compliance with applicable laws and regulations;
- management and control of operational and financial risks.

However, internal control does not provide absolute assurance that these objectives will be achieved.

The Group's internal control system is based on:

- the "Internal Control – Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO);
- the AMF Reference Framework: "Internal Control and Risk Management Systems";
- recommendations published by the AMF.

The internal control system applies to all of the companies included in the Group's scope of consolidation.

In particular, internal accounting and financial control applies to all Group processes relating to the preparation and reporting of financial and accounting information and ensures that such information is reliable and complies with statutory and regulatory requirements.

General Management and the Board of Directors, through the Audit Committee, help monitor and oversee the internal control system. For this purpose, General Management relies on audits carried out by the Internal Audit, Risk and Compliance Department, under the responsibility of the Institut Mérieux, as described below.

Under the authority of the Corporate Vice-President, Finance, Purchasing and Information Systems, who is a member of the Executive Committee, the Finance Department oversees Group-level functions and the administrative and financial functions of each Group entity.

4.4.1 Parties involved

Accounting/Finance

bioMérieux has compiled a manual of accounting and consolidation principles for use by the Group's entities. This manual lists the principal items in the consolidated financial statements and specifies their content. It also defines the valuation methods to be used.

For bioMérieux SA and its main subsidiaries, the accounting procedures required by the application of these principles and local regulations when recognising ordinary and recurring transactions are incorporated in the accounting software, in order to ensure that data are processed securely and automatically.

Management control

The annual budget is prepared by the Executive Committee and validated by the Board of Directors. This budget enables the Group's resources to be allocated to its various projects and activities.

bioMérieux and its subsidiaries all have a management control unit, the duties of which include verifying compliance with the budget. In addition, each function and each region has a dedicated management control unit in charge of drawing up and monitoring the annual budget.

Consolidation

The consolidation process is centralised within the Group. The consolidation team checks that the financial statements of the subsidiaries are prepared in accordance with the Group's accounting principles, as set forth in procedure manuals provided to all Group entities. It has a consolidation software package which includes all the financial statements of the subsidiaries and consolidates them in accordance with the Group's chart of accounts.

The consolidation process includes an in-depth analysis of the financial statements. A quarterly analysis report is prepared and provided to the General Management.

Cash Management and Finance

In light of the large number of countries in which bioMérieux operates, this function also plays a key role in the accounting and financial internal control system. As such, it has notably set up a system of cash pooling, for which bioMérieux SA is the leader, and implements a prudent management of temporary cash surpluses, which are invested in compliance with an investment procedure validated by the Audit Committee.

bioMérieux SA is responsible for managing exchange rate risks in accordance with the Group's policy set out in section 2.7. This involves, in a context of the billing of sales in customers' local currency, the setting up of currency hedges on the Group's net exposure for currencies that allow such hedging at a reasonable cost, and a monthly adjustment in hedges depending on transactions. This exchange rate policy aims to protect the exchange rate levels used in the budget.

Control of subsidiaries

Operational control of subsidiaries is achieved through:

- regional Finance Departments which verify the pertinence of the human, financial and business resources available locally with the assistance of support functions;
- the presence of members of certain operational and/or finance functions on the Boards or committees (Board of Directors or its equivalent) overseeing the activities of subsidiaries;

- the existence of financial and administrative support, particularly through shared service centres (see section 4.4.2);
- a monthly review of their reporting. The subsidiaries' main performance indicators, pertaining primarily to sales, contributive operating income and financial structure, are compared to the same indicators of the previous year and to the budget.

Investor Relations Department

The Company's financial publications (annual and interim reports, press releases, etc.) are drafted on the basis of specific discussions and are submitted to the Group's General Management and Finance, Purchasing and Information Systems Departments for review. Press releases relating to results and sales are reviewed by the Audit Committee.

4.4.2 Process

Control activities are put in place by the financial and operational departments based on Group procedures.

The Group has various written procedures (project management, investment management, processing of financial information, etc.), in French and in English which are accessible *via* its intranet and/or specific servers.

The Internal Audit, Risk and Compliance Department of Institut Mérieux supervises the mapping of the Company's risks and their identification, evaluation and regular monitoring, carried out by internal bioMérieux teams (see Chapter 2).

bioMérieux's internal control environment is based on the elements described below:

Internal control manual

The Finance Department has compiled an internal control manual which sets out the main rules and controls with which all Group companies must comply. Training sessions for the Group's local finance teams were organised to accompany the distribution of this manual. It was updated to strengthen controls for the fight against corruption.

This manual includes information on the rules governing the separation of duties, rules relating to commercial management and the management of spending commitments, banking flows and payments, payroll verification arrangements, the principles governing internal control, financial reporting and the approval of the financial statements.

Internal control in the regions and subsidiaries

The heads of each region and subsidiary and Chief Fiancial Officers are responsible for ensuring the effectiveness of internal control procedures within their organisation and undertake to implement a system that ensures operating efficiency, reliability of financial and accounting information and optimal use of resources, while safeguarding assets and combating fraud.

In order to combat the increase in attempted external fraud, bioMérieux has set up a process for centralising information about these attempts, and for managing corrective and preventive measures. In particular, the Company regularly informs employees about commonly used fraud techniques.

Introduction of shared service centres in Poland and Argentina

Shared service centres were set up in Poland and in Argentina in 2012. As at end-2018, these two centres help to manage the accounting and sales administration activities of 23 subsidiaries. They also help to harmonise internal processes and, through an improved separation of duties, to strengthen internal control in smaller Group companies.

Launch of an integrated management software application

The Company rolled out an integrated management software application in 36 of its subsidiaries. It aims to facilitate the definition of consistent procedures and the implementation of a more effective internal control system.

Introduction of a financial training course

The Finance Department trains all new finance managers or directors within the subsidiaries in procedures and tools (several sessions are held each year) and teaches financial skills to certain non-financial employees of the Company.

4.4.3 Implementation and monitoring of the internal control and risk management system

Implementation of internal control and risk management, under the responsibility of the General Management and the Board of Directors, is based on the audit work as described below.

Internal Audit and Risk Departments

In the Internal Audit, Risk and Compliance Department, the teams dedicated to internal audit ensure that the procedures defined by the Group are correctly applied in the subsidiaries and corporate departments. They conduct audits performed by thirty or so employees with different functions and skills.

The conclusions are shared with the Risk teams, thereby ensuring the continuous improvement of operational processes *via* a risk analysis system and advisory services.

A charter defines the role of internal audit, its duties, the scope of its authority and powers and the methodology used, which complies with professional standards.

From the basis of a central risk analysis, the Internal Audit and Risk teams establish an annual audit plan, updated regularly, as well as a summary and conclusions regarding the work carried out, which are regularly presented to the Audit Committee and the Executive Committee.

From January 1, 2019, internal audit activities have been transferred to Institut Mérieux which wanted to strengthen its Group Audit Department, including internal audit, risk management and compliance. This is in order to pursue the objective of consistency in the risk management and safeguarding processes in Institut Mérieux and its controlled companies, in order to meet all the legal and regulatory obligations that are incumbent upon it. This change was the subject of an amendment to the agreement for services provided by Institut Mérieux under a regulated agreement (see section 7.7)

External audits

The Company is subject to various types of external audits as described below. The Statutory Auditors, Ernst & Young et Autres and Grant Thornton and its network, audit the consolidated financial statements and the parent company financial statements of bioMérieux SA, as well as the individual financial statements of the vast majority of Group companies. For the other subsidiaries, the Statutory Auditors rely on the work carried out by these companies' external auditors.

In addition to the reports required by law, the audits by the Statutory Auditors are summarised in a report that covers material audit findings and the manner in which they have been resolved, as well as recommendations regarding the Group's internal control procedures. These recommendations are reviewed with the management of the subsidiaries concerned and their implementation is monitored.

The analysis and evaluation work of the internal control within the Company are carried out in close consultation with the Statutory Auditors. They are informed of the results of the work carried out by the Internal Audit, Risk and Compliance Department.

5

COMMENTS ON THE FINANCIAL YEAR

5.1 Selected financial information

CONSOLIDATED INCOME STATEMENT

In millions of euros	2018	2017	% Change as reported
Sales	2,421	2,288	+5.8%
Gross profit	1,302	1,212	+7.5%
Contributive operating income before non-recurring items[(a)]	361	335	+7.8%
Operating income[(b)]	344	315	+9.1%
Net income of consolidated companies	256	238	+7.6%
Earnings per share *(in euros)*	2.18	2.02	

(a) Contributive operating income before non-recurring items corresponds to operating income before non-recurring BioFire acquisition and integration costs and before accounting entries relating to the Company's purchase price allocation.
(b) Operating income is the sum of contributive operating income before non-recurring items, BioFire acquisition fees and purchase price amortisation expense and "material, extraordinary and non-recurring items" recognised in "Other non-recurring income and expenses from operations, net".

CONSOLIDATED BALANCE SHEET

In millions of euros	Net Dec. 31, 2018	Net Dec. 31, 2017
Assets		
Non-current assets	2,094	1,709
Current assets	1,296	1,279
Assets held for sale	0	2
Total assets	**3,390**	**2,990**
Shareholders' equity and liabilities		
Equity	2,003	1,737
Non-current liabilities	630	601
Current liabilities	756	652
Liabilities related to assets held for sale	0	0
Total shareholders' equity and liabilities	**3,390**	**2,990**

CONSOLIDATED STATEMENT OF NET CASH FLOWS AND CHANGES IN NET DEBT

In millions of euros	2018	2017
EBITDA[(a)] (before non-recurring items)	**519**	**475**
Net cash from operating activities	**387**	**357**
Net cash used in investing activities	(227)	(183)
Other cash flows	6	(9)
Free cash flow[(b)]	**166**	**165**
Net cash used in acquisitions	(197)	(16)
Dividends	(40)	(39)
Purchase and sale of own shares	(23)	(1)
Change in net cash (net debt)	**(94)**	**109**
Net cash and cash equivalents (net debt) at beginning of year	156	275
Change in net cash and cash equivalents (net debt) and currency impact	(111)	119
Net cash and cash equivalents (net debt) at year-end	**267**	**156**

(a) Contributive operating income before non-recurring items, depreciation and amortisation.
(b) Cash-flow before financial investments and dividends.

5.2 Operating and financial review

5.2.1 Sales

At December 31, 2018 bioMérieux revenue stood at €2,421 million versus €2,288 million at December 31, 2017, an increase at constant exchange rates and scope of 9.9%, slightly higher than the target of around 9.5%. As expected, the currency impact was negative, at €95 million in 2018. Growth published in euros was 5.8% compared to the previous year

Analysis of sales *(in millions of euros)*

Sales – twelve months ended December 31, 2017	**2,288**	
Currency impact	-95	-4.1%
Change in Group structure[(a)]	+1	0.0%
Organic growth (at constant exchange rates and scope of consolidation)	+227	+9.9%
SALES – TWELVE MONTHS ENDED DECEMBER 31, 2018	**2,421**	**+5.8%**

(a) Currency effects are established by converting actual numbers at the average rates of year y-1. In practice, those rates are either average rates communicated by the ECB, or hedged rates if hedging instruments have been set up.

(b) The effects of changes in scope of consolidation are determined:
for acquisitions during the period, deducting from sales during the period the sum of sales completed in that period by entities acquired as from their inclusion in the scope of consolidation;
. for acquisitions in the preceding period, deducting from sales during the period the sum of sales completed in the months during which the acquired entities were not consolidated in the preceding period;
. for disposals in the period, adding to the sales in the period the sum of sales completed by the entities disposed of in the preceding period, during the months in which these entities are no longer consolidated in the current period;
. for disposals in the preceding period, adding to the sales in the period the sales completed during the preceding period by the entities disposed of.

Year-on-year sales trends may be summarised **by geographic area** as follows:

Sales by region *(in millions of euros)*	12 months 2018	12 months 2017	% Change as reported	% Change Like-for-like
Americas	1,070.2	1,007.5	+6.2%	+12.5%
North America	929.6	851.2	+9.2%	+14.0%
Latin America	140.6	156.3	-10.0%	+4.1%
Europe*	921.6	883.5	+4.3%	+5.9%
Asia-Pacific	429.5	397.2	+8.1%	+12.4%
TOTAL GROUP	**2,421.3**	**2,288.2**	**+5.8%**	**+9.9%**

* *Including the Middle East and Africa.*

- Revenue in the Americas (44% of the Group's consolidated total) reached €1,070 million, an increase of 12.5% year-on-year.
  - In North America (38% of the consolidated total), revenue growth was driven by the development of the BIOFIRE® FILMARRAY® molecular biology line with a particularly intense flu season at the beginning of the year. In immunoassays, price pressure on procalcitonin continued to hamper revenue growth, despite an increase in volumes.
  - Latin America recorded robust growth in all countries except in Brazil, where business continued to slow in an unfavourable economic environment and with a change in the ERP software.
- Revenue in the Europe – Middle East – Africa region (38% of the consolidated total) came to €922 million, up 5.9% over the previous year.
  - In Europe (31% of the consolidated total), revenue growth was driven by all countries thanks to strong momentum in the molecular biology and industrial microbiology product lines.
  - bioMérieux's revenue in the Russia – Middle-East – Africa region grew by almost 20%. This dynamic growth was supported by both an increase in the activity of all product lines and by price increases.
- Sales in the Asia Pacific region (18% of total revenue) amounted to €429 million, up by more than 12% year-on-year, on the back of solid performances in China, India and countries in Southeast Asia. This positive trend was notably driven by the growth in clinical microbiology and immunoassays.

Year-on-year sales trends may be summarised **by application** as follows:

Sales by application *(in millions of euros)*	12 months 2018	12 months 2017	% Change as reported	% Change Like-for-like
Clinical applications	**1,987.8**	**1,875.6**	**+6.0%**	**+10.1%**
Microbiology	964.9	946.4	+2.0%	+6.0%
Immunoassays	441.8	457.3	-3.4%	+0.1%
Molecular Biology	549.0	440.4	+24.7%	+29.8%
Other lines[(a)]	32.1	31.6	-1.6%	+4.1%
Industrial Applications[(b)]	**433.5**	**412.5**	**+5.1%**	**+9.1%**
TOTAL GROUP	**2,421.3**	**2,288.2**	**+5.8%**	**+9.9%**

(a) Including Applied Maths, BioFire Defense and R&D collaborators in clinical applications
(b) Including R&D collaborators in industrial applications

- Clinical application revenue, which accounted for approximately 82% of the consolidated total, rose by 10% year-on-year to €1,988 million.
  - Growth in the microbiology area was principally led by the solid growth of the BACT/ALERT® blood culture line, by the increase in sales of the VITEK® range, and by the rapid development of lab automation systems.
  - In immunoassays, 2018 performance remained constrasted. Growth in sales volumes in China, the Middle East and Africa was more than offset by price pressure on procalcitonin assays in the United States and declining sales of manual serology tests. Full-year sales of VIDAS® reagents grew by around 2%.
  - In molecular biology, during the year, the BIOFIRE® FILMARRAY® product line increased its installed base of 2,100 units to a total of 8,200 units. The international roll-out of the line accelerated over the year, with sales outside the United States representing around 17% of its total sales. At the end of 2018, revenue from the BIOFIRE® FILMARRAY® product line came to €483 million, up 37% from 2017.
- Revenue from industrial applications, which represent around 18% of the Group's sales, amounted to €433 million. The year-on-year increase of 9.1% was driven by strong demand for product lines aimed at customers in the pharmaceutical industry and by rapid growth in molecular biology solutions for food applications.

5.2.2 Financial statement

5.2.2.1 Consolidated P&L statement

Gross profit

At the end of December 2018, gross profit stood at €1,302 million or 53.8% of revenue, up from 53.0% the year before, despite an unfavourable currency impact of around 90 basis points. The increase in gross margin at constant exchange rates stemmed primarily from an improvement in the product mix and solid growth in volumes. It was also lifted by the longer depreciation periods used for the installed base of instruments placed in the premises of Group customers, which more accurately reflect their useful lives.

Contributive operating income before non-recurring items

Contributive operating income before non-recurring items amounted to €361 million in 2018, compared with €335 million at December 31, 2017. Contributive operating income before non-recurring items as a percentage of revenue came to 14.9%, up from 14.6% the previous year. The Group's margins therefore improved, despite a significant negative currency impact of around €40 million year-on-year, and €17 million in expenses recognised on the consolidation of companies acquired in 2018. These negative impacts more than offset the positive €36 million year-on-year impact of certain variable compensation plans in the United States that are tied to the bioMérieux share price (phantom share plans) and therefore tracked the share's decline in the second half of the year.

- Selling, general and administrative expenses amounted to €646 million, or 26.7% of revenue, up 9.4% at constant exchange rates and up 7% as reported. The increase primarily reflected higher employee numbers in the sales teams dedicated to the BIOFIRE® FILMARRAY® product line and in teams in Asia, particularly in Japan, where distribution is now handled directly.
- R&D expenses amounted to €327 million in 2018, or 13.5% of revenue, versus €304 million or 13.3% of revenue in 2017. The 7% increase at constant exchange rates reflects, as expected, the additional R&D efforts made in particular to support the BIOFIRE® FILMARRAY® product line and certain microbiology lines, as well as the integration of Astute Medical's activities.

Other operating income, which includes research tax credits, grants and net income from royalties, came to €31 million in 2018, unchanged from the previous year.

Operating income

The depreciation/amortisation charged against assets valued at the date of acquisition of BioFire amounted to €18 million in 2018, stable year-on-year. As a result, in 2018, the Group's operating income was €343 million, up 9% on the €315 million reported in 2017.

Net income of consolidated companies

Net financial expense amounted to €23 million in 2018, up slightly from the €22 million expense recorded in 2017. The cost of net debt came to €18.5 million, versus €16.2 million in the previous year, and other financial income and expenses totalled €4.5 million, down from €6.2 million in 2017, thanks to a decline in the cost of foreign exchange hedges.

At December 31, 2018, the Group's effective tax rate stood at 20.3%, versus 18.6% at the end of 2017, when it benefited from non-recurring items relating to U.S. tax reform. The effective tax rate in 2018 reflects the positive recurring impact of this same reform, as well as a one-off payment to the U.S. pension fund and the favourable resolution of a tax dispute in Sweden.

Net income of consolidated companies amounted to €257 million in 2018, up 8.3% from €238 million in 2017.

5.2.2.2 Cash flows

Free cash flow

EBITDA reached €519 million at the end of December 2018, representing 21.4% of revenue, up by 9% compared to €475 million for 2017. This increase reflects the rise in contributive operating income before non-recurring items and depreciation, amortisation and provisions for operation. Income tax paid amounted to €65 million, a drop from the €91 million paid in the previous year, following the implementation of the U.S. tax reform, which lowered federal tax rates from 35% to 21%. Working capital requirement rose by just €3 million in 2018, despite sustained growth in Group sales over the period. This change is primarily due to the following factors:

- the level of stock increased at the same rate as the sales, with an increase of €27 million in 2018 and with practically stable rotation periods;
- trade receivables were up by €30 million, mainly reflecting growth in sales and stable days of sales outstanding;
- variations related to trade payables increased by €14 million, in line with sales;
- other working capital requirement items improved by €41 million, chiefly as a result of an increase in accrued taxes and payroll liabilities; the latter now includes the provision in relation to variable compensation indexed to the bioMérieux share price (phantom share plans), whereas it was previously recorded as a debt.

Furthermore, in the first half of 2018, bioMérieux recorded an exceptional payment to the American pension fund for €56 million, classified in "other variations related to the activity". As expected, capital expenditure outlays represented around 9% of revenues or €227 million in 2018, versus €183 million in 2017.

Change in net debt

Acquisitions of non-current financial assets, net of disposals, stood at €197 million in 2018, mainly related to the acquisition of Astute Medical Inc. and the majority stake taken in the capital of Hybiome in China. In addition, the Company paid €40 million in dividends, virtually unchanged from the previous year, and bought back shares for €23 million under the share buyback program to cover employee share grant plans, compared with €1 million the previous year. As a result, consolidated net debt came to €267 million at December 31, 2018, versus €156 million at December 31, 2017.

5.2.2.3 Human resources

At December 31, 2018, the Company had approximately 11,200 full-time-equivalent employees and temporary staff, compared with 10,400 at December 31, 2017.

5.2.2.4 Operating highlights

Business development

In April 2018, bioMérieux announced the acquisition of Astute Medical Inc. for $90 million. Based in San Diego, United States, Astute Medical Inc. has notably developed the NEPHROCHECK® test, a CE-marked test cleared by the U.S. authorities for the early risk assessment of acute kidney injury based on the level of two biomarkers, IGFBP-7 (Insulin-like Growth Factor-Binding Protein-7) and TIMP-2 (Tissue Inhibitor Metalloproteinases-2). During the second quarter, the biomarkers in the NEPHROCHECK® test were included in guidelines issued by the ERAS® Cardiac Surgery Society and in consensus recommendations published by the Acute Dialysis Quality Initiative (ADQI), an international organisation that brings together more than 150 members who specialise in the diagnosis and management of acute kidney injury (AKI) and other conditions that require dialysis.

In November 2018, bioMérieux acquired a majority stake in the capital of Suzhou Hybiome Biomedical Engineering Co. Ltd ("Hybiome"), in order to consolidate its long-term presence in China and in the field of immunoassays. This transaction followed the acquisition of a non-controlling interest in the company in July 2018. Hybiome is based in Suzhou, China, and specialises in automated immunoassay analysers. Founded in 2009, it develops, produces and markets a comprehensive range of diagnostic solutions (reagents, instruments and software) cleared by the China Food and Drug Administration (CFDA). Hybiome employs around 300 people, including close to 80 employees in R&D.

Commercial offer

During 2018, bioMérieux enhanced its commercial offer in several areas:

- in microbiology, CE marking and FDA clearance of the expanded VITEK® MS database. This innovative solution further improves the performance of the VITEK® MS mass spectrometry system by adding 272 new species to its database, including 217 bacteria species and 55 fungal species. The VITEK® MS database now contains around 16,000 strains. In addition, bioMérieux has enhanced its ETEST® manual antibiotic susceptibility testing product line, launching ETEST® Piperacillin/Tazobactam in Europe in late 2018 and ETEST® Telavancin in the United States in early 2019;
- in immunoassays, the Company launched VIDAS® PTH (1-84), a quantitative test for parathyroid hormone, mainly used in the monitoring of chronic kidney disease patients. This new test is the latest addition to bioMérieux's range of solutions dedicated to bone and mineral metabolism, which already includes VIDAS® Vitamine D and VIDAS® Ferritine;
- in molecular biology, the new BIOFIRE® FILMARRAY® Pneumonia Panel received FDA 510(k) clearance and was CE-marked. The panel can identify 33 targets in several types of samples, such as bronchoalveolar lavage fluids and sputum (including endotracheal aspirate). The target list includes 18 bacteria, 8 viruses and 7 antibiotic resistance genes. For bacterial targets, 15 tests will provide information about the abundance of microorganisms in a given sample;
- in industrial microbiological control, the innovative ENDOZYME® II GO test was launched for the detection of endotoxins in pharmaceutical microbiology control. Based on recombinant horseshoe crab Factor C (rFC), this new assay enables endotoxin testing in pharmaceutical grade water, injectable drugs and other pharmaceutical products. It is the result of the combined expertise of bioMérieux in microbiology and Hyglos GmbH, acquired by bioMérieux in 2016 and specialized in endotoxin detection.

5.3 Capital resources

5.3.1 Share capital

See the consolidated statement of changes in equity in section 6.1.1 and Note 14.1 in section 6.1.2

5.3.2 Sources and amounts of cash flow

Net debt amounted to €267 million at December 31, 2018, *versus* €156 million at December 31, 2017.

Further information relating to cash flow is presented in section 5.2.2.2.

The consolidated cash flow statement is presented in section 6.1.1.

5.3.3 Borrowing conditions and financing structure

The Company has issued €300 million in seven-year bonds, which were placed with institutional investors in October 2013. It also has an undrawn €500 million syndicated line of credit expiring on January 26, 2024, which includes an option to extend the term for a further year. Lastly, in 2015, it signed a 12-year, €45 million lease financing agreement to fund the extension of the Marcy l'Étoile site. In order to meet the general financing needs of bioMérieux SA and its subsidiaries, the Company can use a programme for the issuance of short-term marketable securities in the amount of €500 million.

The details and terms and conditions of these financing facilities are provided in Note 16 of section 6.1.2.

5.3.4 Restrictions on the use of the share capital

See Note 16.4 of section 6.1.2.

5.3.5 Expected financing sources

Current industrial capital expenditure is generally financed by the Company's equity (see the consolidated statement of cash flows in section 6.1.1).

5.4 Significant change in financial or trading position

To the best of the Company's knowledge, no significant change in its financial or trading position has occurred since the end of 2018, with the exception of the information described in section 5.6 of this Registration Document.

5.5 Investments

5.5.1 Principal investments

The year 2018 was shaped by the completion of several major projects:

- Salt Lake City (Utah, United States) site: acquisition of land for construction of a new production building;
- Marcy l'Étoile (France) site: move to a new building for immunoassay R&D activities;
- Shanghai (China): move to a new campus.

As a result, investment amounted to €222 million. In all, they represented 9% of revenue. As of December 31, 2017, capital expenditure totalled €183 million (including changes in debt on acquisition of fixed assets).

5.5.2 Principal investments in progress

In 2019, the Company anticipates an overall investment effort of around 10% of sales for the financial year.

The main projects include the ongoing roll-out of the Global ERP project, including its latest acquisitions, along with the launch of the Global CRM project.

- Salt Lake City (Utah, United States) site: continuation of projects to automate production of BIOFIRE® FILMARRAY® reagents in order to increase capacity.
- Salt Lake City (Utah, United States) site: launch of a construction project at a new site to increase production capacity of BIOFIRE® FILMARRAY® reagents. It will be located in a different industrial park from the current location of production and R&D activities.
- St. Louis (Missouri, United States) site: continuation of plan to automate and increase capacity of production lines for VITEK® 2 cards.
- Craponne (France) site: restructuring of the site to improve and increase its hosting capacity.

Current capital expenditure is generally financed by the Company's equity (see the consolidated statement of cash flows in section 6.1.1).

5.5.3 Principal future investments

In addition to current projects, bioMérieux will continue to adapt and upgrade its production resources.

5.6 Overview and current trends and objectives

5.6.1 Subsequent events

Acquisition of Invisible Sentinel Inc.

On February 7, 2019, bioMérieux announced the acquisition of Invisible Sentinel Inc. This company, based in Philadelphia (United States) develops, manufactures and markets innovative and user-friendly molecular diagnostic tools for the detection of pathogens and spoilage organisms in food and beverages. bioMérieux has acquired all of the shares of Invisible Sentinel Inc. for approximately $75 million in cash, subject to customary adjustments. The company has 40 employees (on a full-time equivalent basis) and generated revenues of about $9 million in 2018, with very strong double-digit growth year-on-year.

Appointment of Valérie Leyldé as Executive Vice President, Human Resources & Communication

bioMérieux announced the appointment of Valérie Leyldé as Executive Vice President, Human Resources & Communication and member of the Executive Committee. These functions were previously overseen by Michel Baguenault, who continues to serve as Secretary General and is notably in charge of internal audit, public relations and corporate social responsibility. Valérie Leyldé is a graduate of HEC Paris and Sciences Po Paris. Prior to her recent appointment, she served as Vice President, Corporate Human Resources, Communication & Customer Excellence at Mérieux NutriSciences, after serving in various positions in bioMérieux's Human Resources Department. This appointment took effect on January 1, 2019.

5.6.2 Outlook for financial year 2019

In 2019, bioMérieux will endeavour to maintain the strong sales momentum achieved in recent years and has set a target of organic growth in sales of between 7.0% and 8.5% at constant exchange rates and scope of consolidation. Growth reported in euros is expected to be close to organic growth. These objectives reflect a flu season of normal intensity in 2019, compared to a particularly intense season in 2018. bioMérieux therefore expects sales growth to be weaker in first-quarter 2019 than in the other quarters. bioMérieux also aims to further improve its margins while investing to strengthen its positions. The Company is targeting contributive operating income before non-recurring items of between €385 million and €400 million, at current exchange rates. This range includes a negative currency impact of around €5 million, as well as the €10 million dilutive impact of integrating recently acquired companies Astute Medical, Hybiome and Invisible Sentinel. Note that variable compensation plans in the United States tied to the share price (phantom share plans) will continue in 2019. These objectives do not take into account the potentially negative effects of uncertain events that are beyond the Company's control, such as the application of a hard Brexit, heightened trade tensions between the United States and China, or greater-than-expected declines in emerging-market currencies.

6

FINANCIAL STATEMENTS

6.1 Consolidated financial statements

6.1.1 Consolidated financial statements for the financial year ending on December 31, 2017 and 2018

Consolidated income statement

In millions of euros	Notes	Dec 31, 2018	Dec 31, 2017
SALES		**2,421.3**	**2,288.2**
Cost of sales		(1,119.1)	(1,076.4)
GROSS PROFIT		**1,302.2**	**1,211.8**
OTHER OPERATING INCOME AND EXPENSES	**19**	**31.2**	**31.2**
Selling and marketing expenses		(480.3)	(447.5)
General and administrative expenses		(165.2)	(156.4)
Research and development expenses		(326.9)	(304.4)
TOTAL OPERATING EXPENSES		**(972.4)**	**(908.3)**
CONTRIBUTIVE OPERATING INCOME BEFORE NON-RECURRING ITEMS		**361.0**	**334.7**
BioFire acquisition fees and depreciation costs[(a)]	23	(17.5)	(18.2)
OPERATING INCOME BEFORE NON-RECURRING ITEMS		**343.5**	**316.5**
Other non-recurring income and expenses from operations	24	0.2	(1.6)
OPERATING INCOME		**343.6**	**314.9**
Cost of net financial debt	22.2	(18.5)	(16.2)
Other financial income and expenses, net	22.3	(4.5)	(6.2)
Income tax	25	(65.2)	(54.5)
Share in earnings (losses) of equity-accounted companies		0.2	(0.4)
NET INCOME OF CONSOLIDATED COMPANIES		**255.6**	**237.6**
Non- controlling interests		(1.1)	(0.6)
ATTRIBUTABLE TO OWNERS OF THE PARENT		**256.6**	**238.1**
Basic earnings per share		€2.18	€2.02
Diluted earnings per share		€2.17	€2.01

(a) In order to improve the understanding of operating income and in view of BioFire's size, the amortisation of the assets acquired and valued during the purchase price allocation, are presented on a separate line of operating income before non-recurring items.

Total comprehensive income

In millions of euros	Notes	Dec 31, 2018	Dec 31, 2017 restated[e]
Net income for the period		**255.6**	**237.6**
Items to be reclassified to income		**24.1**	**(80.0)**
Fair value gains (losses) on financial hedging instruments	(a)	(3.1)	2.4
Tax effect		0.7	(0.9)
Movements in cumulative translation adjustments	(b)	26.5	(81.5)
Items not to be reclassified to income		**9.4**	**(0.5)**
Fair value gains (losses) on financial assets	(c)	2.4	6.9
Tax effect		(0.4)	0.4
Remeasurement of employee benefits	(d)	10.1	2.6
Tax effect		(2.7)	(10.4)
TOTAL OTHER COMPREHENSIVE INCOME		**33.5**	**(80.6)**
TOTAL COMPREHENSIVE INCOME		**289.1**	**157.0**
Non- controlling interests		(1.3)	(0.6)
ATTRIBUTABLE TO OWNERS OF THE PARENT		**290.4**	**157.5**

(a) Variation in the effective share of financial hedging instruments
(b) The change in translation differences in 2018 is mainly related to the increase in the euro rate against other currencies and in particular the dollar.
(c) Changes in the fair value of financial instruments concern shares in non-consolidated companies for which the Group has opted for a change in the fair value in other comprehensive income not recyclable in profit and loss (see Note 7).
(d) See Note 15.3.
(e) The Group has applied the IFRS 9 standard since January 1, 2018 (see Note 2). The application has not had an impact on consolidated net income, but on other components of comprehensive income. The statement of comprehensive income above presents the impact of the retrospective application of the standard on the classification of changes in fair value of non- consolidated equity investments in non-recyclable components.

The first application of IFRS15 had no impact on the consolidated income statement.

Consolidated balance sheet

Assets

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017
Intangible assets	4	507.3	430.7
Goodwill	5	616.5	442.7
Property, plant and equipment	6	807.5	711.4
Non-current financial assets	7	71.8	57.9
Net income for the period - Investments in associates		0.3	0.1
Other non-current assets		16.2	14.1
Deferred tax assets	25.3	74.3	51.6
NON-CURRENT ASSETS		**2,093.9**	**1,708.5**
Inventories and work-in progress	8	414.9	380.3
Trade receivables and assets related to contracts with customers	9	490.0	460.1
Other operating receivables	11	61.7	75.1
Current tax receivables	11	39.2	36.1
Non-operating receivables	11	9.6	15.7
Cash and cash equivalents	12	280.1	312.1
CURRENT ASSETS		**1,295.6**	**1,279.4**
ASSETS HELD FOR SALE	**13**	**0.1**	**2.1**
TOTAL ASSETS		**3,389.6**	**2,990.0**

Shareholders' equity and liabilities

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017
• Share capital	14	12.0	12.0
• additional paid-in capital and reserves	14	1,660.6	1,487.5
• Attributable net income for the period		256.6	238.1
EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT		**1,929.3**	**1,737.6**
NON-CONTROLLING INTERESTS		**74.0**	**(0.9)**
TOTAL EQUITY		**2,003.3**	**1,736.7**
• Long-term borrowings and debt	16	446.8	391.1
• Deferred tax liabilities	25.3	136.0	103.8
• Impairment	15	47.1	106.7
NON-CURRENT LIABILITIES		**629.9**	**601.5**
• Short-term borrowings and debt	16	100.2	76.9
• Impairment	15	45.0	34.1
• Trade payables	17	176.9	161.3
• Other operating payables	17	345.1	300.7
• Current tax payables	17	33.5	24.2
• Non-operating payables	17	55.8	54.6
CURRENT LIABILITIES		**756.4**	**651.8**
LIABILITIES RELATED TO ASSETS HELD FOR SALE	**13**	**0.0**	**0.0**
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		**3,389.6**	**2,990.0**

The first application of the IFRS 9 and 15 standards had no impact on the consolidated balance sheet.

Consolidated statement of cash flows

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017
Net income of consolidated companies		**255.5**	**237.5**
• Net income for the period - Investments in associates		(0.2)	0.4
• Cost of net financial debt		18.5	16.2
• Other financial income and expenses, net		4.5	6.2
• Income tax expense		65.2	54.5
• Operating depreciation and provisions on assets		157.9	140.5
• Non-recurring items and BioFire acquisition fees and depreciation costs		17.4	19.9
EBITDA (before non-recurring items)	16	**518.8**	**475.2**
Other non-recurring income and expenses from operations *(excluding non-recurring provisions for impairment and capital gains and losses on disposal of capital assets)*		0.1	(1.1)
Other financial income and expenses, net *(excluding provisions and disposals of non-current financial assets)*		(4.6)	(6.1)
Net additions to operating provisions for contingencies and losses		(47.8)	5.5
Fair value gains (losses) on financial instruments		0.3	2.3
Share-based payment		6.7	7.5
Elimination of other non-cash/non-operating income and expenses		**(45.3)**	**8.1**
Change in inventories		(27.3)	(4.3)
Change in trade receivables		(30.3)	(25.6)
Change in trade payables		13.7	(4.1)
Change in other operating working capital		41.1	(3.8)
Change in operating working capital requirement[(a)]		**(2.8)**	**(37.8)**
Other non-operating working capital		2.7	1.5
Change in non-current non-financial assets and liabilities		(1.5)	2.0
Change in working capital requirement		**(1.6)**	**(34.3)**
Income tax paid		**(66.5)**	**(91.5)**
Cost of net financial debt	22	**(18.5)**	**(16.2)**
NET CASH FROM OPERATING ACTIVITIES		**386.9**	**341.3**
Purchases of property, plant and equipment and intangible assets		(226.8)	(183.5)
Proceeds from disposals of property, plant and equipment and intangible assets		5.4	7.9
Proceeds from other non-current financial assets		0.0	(0.4)
FREE CASH FLOW[(b)]		**165.5**	**165.3**
Disbursement / collection related to taking non-controlling interests		(5.4)	(13.7)
Impact of changes in Group structure		(191.4)	9.3
NET CASH USED IN INVESTING ACTIVITIES		**(418.2)**	**(180.4)**
Purchases and sales of treasury shares		(22.6)	(0.9)
Dividends paid to owners		(40.2)	(39.4)
Dividends paid to non-controlling interests		0.0	(0.1)
Change in committed debt		115.5	(0.6)
Change in interests without gain or loss of controlling interest		0.0	(11.5)
NET CASH USED IN FINANCING ACTIVITIES		**52.7**	**(52.5)**
NET CHANGE IN CASH AND CASH EQUIVALENTS		**21.4**	**108.4**
Net cash and cash equivalents at beginning of year		**260.4**	**146.6**
Impact of currency changes on net cash and cash equivalents		(11.8)	5.4
Net cash and cash equivalents at end of year		**270.0**	**260.4**

(a) Including allocations (reversals) of short-term provisions.
(b) Corresponds to the sum of flows related to the activity and those related to investments excluding the impact of changes in the scope of consolidation. It also includes flows on treasury shares and those relative to the cost of debt.

The first application of IFRS 9 has not had an impact on the consolidated statement of cash flows. Indeed, changes to the fair value of non-consolidated securities were already recognised in other comprehensive income and no impact was recognised in profit/loss in 2017.

The presentation of the consolidated cash flow statement has changed in order to better reflect the Group's cash generation. The comparative table is presented in Note 16.1.

Net cash generated from operating activities

The EBITDA reached €519 million at the end of December 2018, representing 21.4% of revenue, up by 9% compared to €475 million for 2017. This increase reflects the increase in the contributive operating income before non-recurring items and depreciation, amortisation and provisions for operation.

Income tax paid amounted to €66 million, a sharp drop from the €91 million paid in the prior year, following the implementation of the U.S. tax reform, which lowered federal tax rates from 35% to 21%.

During 2018, the operating working capital requirement only increased by €3 million, in spite of the sustained growth of the Group's activity over the period. Primarily as a result of the following factors:

- the level of stock increased at the same rate as the activity with an increase of €27 million in 2018 and with practically stable rotation periods;
- customer credits increased by €30 million, mainly reflecting the growth in the activity and sustained collection deadlines;
- variations related to trade payables increased by €14 million, in line with the activity;
- the other elements of the working capital requirement improved by €41 million, mainly due to the increase in tax and social-security debts, which now include the provision for variable compensation indexed on the price of the share (Phantom shares) as part of liabilities to personnel, while they were previously recorded under borrowings.

Furthermore, in the first half of 2018, bioMérieux recorded an exceptional payment to the American pension fund for €56 million, classified in "other variations related to the activity".

At the end of the 2018 financial year, cash generated from operating activities reached €387 million, up by nearly 13.3% compared to the €341 million recorded in the previous financial year, including the cost of financial debt reclassified as flows related to the activity.

Net cash used in investing activities

As expected, disbursements related to investments represented about 9.4% of revenue, namely €227 million in 2018, against €183 million during the previous financial year.

In this context, the free cash flow excluding the exceptional payment to the American pension fund reached €221 million in 2018, compared to €165 million in 2017, representing an increase of nearly 40%. Taking into account this exceptional payment, the published free cash flow stood at €165 million.

Net cash used in financing activities

Acquisitions of non-current financial assets, net of disposals, stood at €192 million in 2018, mainly related to the acquisition of Astute Medical Inc. and the majority stake in the capital of Hybiome in China.

Furthermore, the Company paid a dividend of €40 million, almost stable from one year to the other, and spent €23 million on its share buyback programme to cover the share grant plans, compared to €1 million the previous year.

Statement of changes in consolidated equity

	Attributable to owners of the parent										Non-controlling interests
In millions of euros	Share capital	Additional paid in capital and consolidated reserves[a]	Cumulative translation adjustments	Changes in fair value[b]	Actuarial gains and losses[c]	Treasury shares	Share-based payment	Total additional paid-in capital and reserves	Net income	Total	Total
EQUITY AT DECEMBER 31, 2016	**12.0**	**1,423.6**	**49.0**	**7.4**	**(46.3)**	**(14.2)**	**8.5**	**1,428.0**	**179.1**	**1,619.1**	**2.2**
Total comprehensive income for the period			(81.5)	8.7	(7.7)			(80.6)	238.1	157.5	(0.6)
Appropriation of prior-period net income		179.1						179.1	(179.1)	0.0	
Dividends paid[d]		(39.4)						(39.4)		(39.4)	(0.1)
Treasury shares		(1.4)				3.3		1.9		1.9	
Share-based payment[e]							7.5	7.5		7.5	
Changes in ownership interests[f]		(9.1)						(9.1)		(9.1)	(2.4)
Other changes[g]		5.5					(5.5)	0.0		0.0	
EQUITY AT DECEMBER 31, 2017	**12.0**	**1,558.4**	**(32.5)**	**16.1**	**(54.0)**	**(10.9)**	**10.5**	**1,487.5**	**238.1**	**1,737.6**	**(0.9)**
Total comprehensive income for the period			26.7	(0.4)	7.4			33.7	256.6	290.4	(1.3)
Appropriation of prior-period net income		238.1						238.1	(238.1)	0.0	
Dividends paid[d]		(40.2)						(40.2)		(40.2)	
Treasury shares		(2.7)				(21.9)		(24.6)		(24.6)	
Share-based payment[e]							6.7	6.7		6.7	
Changes in ownership interests[f]		(0.9)						(0.9)		(0.9)	76.1
Other changes[g]		(39.6)					(0.2)	(39.8)		(39.8)	
EQUITY AT DECEMBER 31, 2018	**12.0**	**1,713.2[h]**	**(5.9)[i]**	**15.7**	**(46.6)**	**(32.8)**	**17.0**	**1,660.6**	**256.6**	**1,929.3[h]**	**74.0[j]**

(a) Of which paid-in capital: €63.7 million
(b) Including changes in the fair value of Quanterix, Labtech and GNEH shares and hedging instruments
(c) Actuarial gains and losses on employee benefit obligations arising since the effective date of the revised IAS 19R
(d) Dividends per share: €0.34 in 2018 and €1 in 2017 (before stock split). Shares not qualifying for dividends amounted to 569,443 at December 31, 2018, compared with 234,074 at December 31, 2017.
(e) The fair value of benefits related to share grants is being recognised over the vesting period.
(f) The variation in percentages of interests corresponded in 2017 to the repurchase of shares of bioMérieux Japan from Sysmex, in 2018 to the acquisition of Hybiome and the repurchase of the minority interests of RAS Lifesciences
(g) Essentially corresponds to the recognition of the debt relating to the put on the Hybiome minority interest
(h) Of which distributable reserves of bioMérieux SA, including earnings for the financial year: €989.5 million
(i) See Note 14.2 Cumulative translation adjustments
(j) The variation in the share of minority interests comes from the repurchase of shares of RAS Lifesciences from minority shareholders and the acquisition of Hybiome, of which 45.52% goes to minority interests

The first application of IFRS 9 has not had an impact on the statement of changes in consolidated equity.

6.1.2 Notes

bioMérieux is a leading international diagnostics group that specialises in the field of *in vitro* diagnostics for clinical and industrial applications. The Group designs, develops, manufactures and markets diagnostic systems, *i.e.* reagents, instruments and software. bioMérieux is present in more than 160 countries through 43 subsidiaries and a large network of distributors.

These consolidated financial statements were approved by the Board of Directors on February 26, 2019.

The financial statements will only be considered definitive after approval by the Annual General Meeting on May 23, 2019.

The consolidated financial statements are presented in millions of euros.

Note 1. Changes in the scope of consolidation during the financial year and significant events

1.1 Changes in the scope of consolidation

1.1.1 Acquisition of Astute Medical Inc.

On April 4, 2018, bioMérieux acquired 100% of the shares in Astute Medical Inc., based in San Diego (USA). Astute is a company specialising in the identification and validation of biomarkers.

This acquisition follows an initial agreement signed in 2014 to develop and market the NephroCheck® test (identification of Acute Kidney Injury) for the VIDAS® platform.

The acquisition was carried out for an amount of €75.2 million in cash. The subsidiary was consolidated by the full consolidation method from the takeover date, giving mainly rise to the recognition of the technologies net of deferred tax liabilities for €25.9 million, deferred tax assets of €16.2 million and provisional goodwill of €28.4 million. This goodwill reflects the human capital acquired as well as the specific synergies expected by bioMérieux.

Since the acquisition date, Astute has generated an operating loss of €17.2 million including the depreciation of the technologies recognised during the purchase price allocation work.

1.1.2 Acquisition of Suzhou Hybiome Biomedical Engineering Co. Ltd

On November 3, 2018, bioMérieux took a 54.48% stake in the capital of Suzhou Hybiome Biomedical Engineering Co. Ltd, giving it exclusive control. Based in Suzhou (China), the Company specialises in automated immunoassay tests.

The acquisition was made for €115.6, of which €105.9 million came within the context of the business combination and €9.7 million was relative to the acquisition of the installed base from the main distributor.

Furthermore, the contract specifies cross call and put options relating to 37.32% of the interests of the Company. These options can be exercised in 5 years providing certain conditions are fulfilled. In this context, the Group considers that the exercise of the put by the minority interests is reasonably certain. Consequently, a debt to the minority interests was recognised for its current value, namely €39.2 million.

The consolidation of the Company through full consolidation gave rise to the recognition of a technology subject to amortisation for a provisional amount of €41.9 million after the tax effect, as well as provisional goodwill, recognised according to the full goodwill method, of €139.3 million, of which €83.1 million returns to the Group. This goodwill reflects the ability of the Group to grow market share in China.

The contributions to the revenue and contributive operating income before non-recurring items of the Group in 2018 are not significant.

1.2 Significant events of the financial year

1.2.1 Exceptional contribution to the US retirement plan

During the first half of 2018, bioMérieux Inc. made an exceptional payment of $67 million, representing €56 million to the fund for covering American post-employment benefit obligations. The liability was thus reduced from €56.2 million on December 31, 2017 to €5.1 million on December 31, 2018. The tax treatment of this payment generated tax savings of €4.9 million, recorded for the financial year.

1.3 Summary of significant events in 2017

The significant events for 2017 were the following:

- an additional stake was taken in Sysmex bioMérieux for €11.5 million, thus bringing bioMérieux's percentage of interest in its subsidiary to 100%;
- a stake was taken in Banyan Biomarkers for $7 million;
- took part in raising funds for Qvella for €6 million;
- impact of American tax reform on the valuation of deferred tax generating savings of €30 million in profit/loss and an expense of €10.5 million in other elements of comprehensive income;
- stock split by three.

These events had no significant impact on the annual financial statements for the 2018 financial year.

1.4 Pro forma information on changes in the scope of consolidation

No *pro forma* income statement information is given, since the acquisitions carried out in 2018 did not have a material impact on the Group's financial statements.

The impact of changes in the scope of consolidation is shown on a separate line of the statement of cash flows and tables showing year-on-year changes in the notes.

Note 2. General accounting principles

Standards, amendments and interpretations

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS), including all standards, amendments and interpretations adopted by the European Commission at December 31, 2018. These can be consulted on the European Commission's website at http://ec.europa.eu/internal_market/accounting/ias/index_fr.htm.

The new standards, amendments and interpretations adopted by the European Commission and applicable from January 1, 2018 are presented below.

Standard IFRS 15: The Group has retrospectively applied IFRS 15 including the amendments "Clarifications to IFRS 15 - Revenue from contracts with customers".

The standard establishes the principles for recognising revenue on the basis of a five-step analysis:

- identification of the agreement;
- the identification of the different performance obligations, *i.e.* the list of separate goods and services that the seller has undertaken to provide to the buyer;
- the determination of the overall price of the agreement;
- the allocation of the overall price of each performance obligation;
- the recognition of revenue when a performance obligation is satisfied.

The analysis carried out by the Group has not had an impact on the consolidated revenue, net income or consolidated equity. The analysis led to special attention being paid to the treatment of contracts for the provision of equipment when they are related to other services (provision of reagents, maintenance services, extended product warranties). For example, the Group studied the impacts of the standard on the criteria used for distinguishing contracts regarding the provision of equipment that have the characteristics of lease contracts. The application of the standard led to the statement in the notes to the consolidated financial statements of a breakdown of sales based on the various components of a multiple-element arrangement (reagent sales, implicit rent, etc.), without having to change the amount of revenue.

The breakdown of revenue as well as a reminder of the rules applied in terms of recognition of revenue according to contract types (disposals, provision, rental), are indicated in Note 3.1.1 of the appendix.

The other specific points of IFRS 15 have not had a material impact.

Consequently, bringing the Group into compliance with IFRS 15 has not had a material impact on the aggregates of the consolidated financial statements.

The analysis of IFRS 15 also led to the re-examination of the expected useful life of equipment provided, which in practice turns out to be significantly longer than the term of the contract which has the characteristics of a rental. The increased expected useful life was recognised prospectively in 2018 (see Note 6.1 hereafter).

Standard IFRS 9: bioMérieux also applies, from January 1, 2018, the IFRS 9 standard "Financial instruments". The standard was applied retrospectively.

Application of the standard led the Group to reallocate shares in non-consolidated companies from the "Assets available-for-sale" category, not taken up by IFRS 9, to the category of securities whose fair value is recognised in other comprehensive income not recyclable in profit and loss (see Note 7.2). This reclassification on January 1, 2017 was carried out without an impact on net income and consolidated equity. The reconciliation between the adjusted financial statements presented for comparison in the financial statements and the published financial statements is indicated in Note 7.2.

IFRS 9 did not have any other impacts. The analysis carried out did not lead to the recognition of any additional impairment of trade receivables in respect of expected losses (see Note 7.2), hedging contracts in the form of options are not significant, and the Company has not carried out any restructuring of borrowings.

The other amendments and interpretations applicable from January 1, 2018 for the financial years from January 1, 2018 have not had a significant impact on the consolidated financial statements or are not applicable. They mainly concern:

- amendments to IFRS 2 "Classification and evaluation of share-based payment transactions";
- IFRIC 22 - "Foreign currency transactions and advance consideration";
- 2014-2016 annual improvements cycle (amendments to IFRS 1 "First adoption of IFRS" and IAS 28 "Long-term interests in associates and joint ventures").

bioMérieux did not opt for the early application of the standards, amendments and interpretations adopted or awaiting adoption by the European Union, which will become effective after December 31, 2018 but which could have been applied early. They mainly concern:

Standards, amendments and interpretations applicable for the financial years open from January 1, 2019:

- IFRS 16 "Leases" (adopted in November 2017 by the European Commission);
- IFRIC 23 "Uncertainty over income tax treatments" (adopted in October 2018 by the European Commission);
- amendments to IFRS 9 "clause on prepayment features with negative compensation" (adopted in March 2018 by the European Commission);
- annual cycle of improvements 2015-2017 (IFRS 3, IFRS 11, IAS 12) subject to adoption by the European Commission, planned for the 1st quarter of 2019;
- amendments to IAS 19 "plan amendment, curtailment or settlement" subject to adoption by the European Commission, planned for the 1st-quarter 2019.

Amendments applicable for financial years open from January 1, 2020, subject to their adoption by the European Commission, planned for 2019:

- amendments to IFRS 3 "Definition of a business";
- amendments to IAS 1 and IAS 8 "Change to the definition of the term materiality".

Lastly, the Group has continued its analysis of the impact of IFRS 16 "Leases", adopted by the European Commission on November 9, 2017. This standard will be effective for the first time for periods beginning on or after January 1, 2019.

The application of this standard should lead to the recognition of assets concerning the usage rights for the leased assets, estimated at between €88 and €92 million on December 31, 2018 and between €84 and €88 million on December 31, 2017, as well as the recognition of a debt for estimated rents of between €94 and €98 million for 2018 and between €88 and €92 million on December 31, 2017. The rental expenses will be cancelled and replaced by depreciation, amortisation and provisions and financial expenses. The impact on the consolidated net earnings and the Group's equity should not be material.

For the record, the amount of leases recognised in expenses and commitments to pay are provided in Note 29.3.1. The Group has opted for a transition according to the full retrospective method.

The analysis of any impact of the application of IFRIC 23 is in progress.

The Group is not expecting the other standards, amendments and interpretations to have a material impact on the Group's consolidated financial statements.

There are no standards, amendments and interpretations published by the IASB, with mandatory application for the financial years opened on January 1, 2019, but not yet approved at the European level (and for which early application is not possible on a European level), which would have had a significant impact on the annual financial statements.

The financial statements of consolidated Group companies that are prepared in accordance with local accounting principles are restated to comply with the principles used for the consolidated financial statements.

General presentation methods used for the financial statements

The balance sheet is presented based on the distinction between "current" and "non-current" assets and liabilities as defined in the revised version of IAS 1. Consequently, the short-term portion of provisions, borrowings and financial assets (due within one year) is classified as "current" and the long-term portion (due beyond one year) is classified as "non-current".

The consolidated income statement is presented by function, with the exception of the presentation on a specific line, in the current operating income, of the net impact of expenses and accumulated depreciation of the acquisition price paid for BioFire.

The Group applies the indirect method of presenting cash flows.

Judgments and estimates

When preparing the consolidated financial statements, estimates and assumptions are made that affect the carrying amount of certain assets, liabilities, and income and expense items. They particularly concern the measurement and impairment of intangible assets (including goodwill); the measurement of employee benefit obligations; the measurement and impairment of non-current financial assets; provisions; deferred taxes; share-based payment; as well as the disclosures provided in certain notes to the financial statements. These estimates and assumptions are reviewed on a regular basis, taking into consideration past experience and other factors deemed relevant in light of prevailing economic conditions. Changes in those conditions could therefore lead to different estimates being used for the Group's future financial statements.

bioMérieux has not observed a significant change in the level of uncertainty related to these estimates and assumptions, except for the volatile discount rate used to measure employee benefit obligations (see Note 15.3), and assumptions related to translation adjustments.

2.1 Presentation of the consolidated income statement

The Group's key financial performance indicator is contributive operating income before non-recurring items. It corresponds to recurring income less recurring expenses. Non-current expenses and income are not included. As stated above, acquisition-related costs and valuation differences recognised for the BioFire purchase price allocation are presented on a specific line, in current operating income.

2.2 Basis of consolidation

Companies over which bioMérieux has exclusive control are fully consolidated.

The Group determines whether it controls an investee based on the criteria set out in IFRS 10 (direct or indirect power over the investee to direct the financial and operating policies of the relevant activities, exposure to variability of returns and ability to use its power to affect the amount of the returns). Control is generally deemed to exist when the Group directly or indirectly owns more than one half of the voting rights of the investee. In determining whether control exists, the Group considers any currently exercisable potential voting rights, including those held by another entity.

Companies over which bioMérieux exercises significant influence are accounted for by the equity method. Significant influence is the power to participate in the financial and operating policy decisions of an entity, without exercising control. It is deemed to exist when the Group holds between 20% and 50% of the voting rights either directly or indirectly.

The analysis of partnerships made according to the criteria defined by the IFRS 11 standard did not identify any joint ventures or joint operations. Joint ventures are accounted for using the equity method.

Subsidiaries are fully consolidated from the date on which control is effectively transferred to the Group.

The list of consolidated companies is provided in Note 33.

All significant intra-group balances and transactions are eliminated in consolidation (notably dividends and internal gains on inventories and non-current assets).

2.3 Financial year-end

All Group companies have a December 31 year-end, except for the Indian subsidiaries, for which interim accounts are drawn up and audited at the Group's reporting date.

2.4 Foreign currency translation

The reporting currency of bioMérieux is the euro and the consolidated financial statements are presented in millions of euros.

2.4.1 Translation of the financial statements of foreign companies

The financial statements of foreign subsidiaries whose functional currency is not the euro or the currency of a hyper-inflationary economy are translated as follows:

- balance-sheet items (except for equity) are translated using the official year-end exchange rate;
- income statement items are translated using the average exchange rate for the year;
- equity items are translated using the historical rate;
- cash flow statement items are translated using the average exchange rate for the year.

The main conversion rates used were the following:

Differences resulting from the translation of subsidiaries' financial statements are recognised in a separate heading in the statement of changes in equity ("cumulative translation adjustments") and movements during the year are presented on a separate line within other comprehensive income.

Argentina has been considered as a country subject to hyper-inflation since July 1, 2018 with regard to the criteria defined by the IAS 29 standard. Consequently, the Group analysed the treatment required by the standard, namely:

- retroactive restatement of January 1, 2018 without modification of the comparative financial year;
- conversion of the 2018 balance sheet and consolidated income statement at closure prices.

The impact of the restatement of the financial statements of bioMérieux Argentina was not significant at the consolidated level; the Group did not perform restatement.

When a foreign subsidiary is sold and the sale leads to a loss of control, translation differences previously recognised in other comprehensive income relating to that company are recognised in net income for the year. If shares in a subsidiary are sold without any loss of control over the subsidiary, the translation differences are reclassified between non-controlling interests and translation differences attributable to owners of the parent.

AVERAGE RATES

1 EURO =	USD	JPY	GBP	CNY	BRL
2018	**1.18**	**130**	**0.88**	**7.81**	**4.33**
2017	1.13	127	0.88	7.62	3.61
2016	1.11	120	0.82	7.35	3.86

YEAR-END RATES

1 EURO =	USD	JPY	GBP	CNY	BRL
2018	**1.15**	**126**	**0.89**	**7.88**	**4.44**
2017	1.20	135	0.89	7.80	3.97
2016	1.05	123	0.86	7.32	3.44

2.4.2 Translation of transactions in foreign currencies

As prescribed by IAS 21 "The Effect of Changes in Foreign Exchange Rates", each Group entity translates foreign currency transactions into its functional currency at the exchange rate prevailing on the transaction date. Exchange rate gains or losses resulting from differences in rates between the transaction date and the payment date are recognised under the corresponding lines in the income statement (sales and purchases for commercial transactions).

Foreign currency payables and receivables are translated at the year-end exchange rate and the resulting currency translation gain or loss is recognised in the income statement at the end of the reporting period.

Derivatives are recognised and measured in accordance with the general principles described in Note 27.1 "Recognition and measurement of financial instruments". Foreign exchange derivatives are recognised in the balance sheet at their fair value at the end of each reporting period.

Note 3. Operating income before non-recurring items and segment information

3.1 Recurring income

Revenue is recognised in application of the IFRS 15 standard "Income from contracts with customers". As specified above, the Company applied this standard retrospectively, including its amendments.

3.1.1 Sales

The principles for revenue recognition defined by the standard IFRS 15 are defined based on an analysis in five successive stages:

- identification of the agreement;
- the identification of the different performance obligations, *i.e.* the list of separate goods and services that the seller has undertaken to provide to the buyer;
- the determination of the overall price of the agreement;
- the allocation of the overall price of each performance obligation;
- The recognition of revenue when a performance obligation is satisfied.

In practice, the rules for the recognition of revenue according to the main performance obligations identified are presented below:

- Sales of reagents:

  Revenue from the sales of reagents is recognised when the Company has transferred control of assets which, in practice, corresponds to the date of dispatch;

- Sales of equipment:

  Revenue from sales of equipment is recognised when the Company has transferred control of the assets which, in practice, corresponds to the date of delivery or installation, depending on the complexity of the equipment.

- Equipment rental:

  Equipment rental is recognised as revenue in a straight-line manner over the period of the contract, for the updated value at the date of establishment of the contract.

  For information, the contracts have an average period of between 3 and 5 years.

- Finance leases:

  When the Group provides goods to third parties under leases with terms equivalent to a sale, the goods concerned are accounted for as if they had been sold, as prescribed by IAS 17 "Leases" (see Note 6.4).

- Contracts for the provision of equipment:

  Contracts for the provision of equipment are related to other services (supply of reagents, maintenance services, guarantee extensions). They are considered as multiple elements contracts.

  The analysis of the criteria defined by the standard led to contracts for the provision of equipment being considered as rental and not transfer contracts, without any change compared to the previous treatment.

  The application of the standard led to the statement in the notes to the consolidated financial statements of a breakdown of sales based on the various components of a multiple-element arrangement (reagent sales, implicit rent, etc.), without having to change the amount of revenue.

- Contracts for the provision of services:

  The services essentially correspond to training, after-sales service and maintenance. The training and after-sales services are recognised in revenue when the services are provided. The analysis performed according to the IFRS 15 standard led to maintenance services being recognised linearly over the period of the maintenance contract, without change in relation to the previous treatment. Deferred income is recognised when the maintenance services are invoiced in advance.

- Guarantees:

  The analysis of contracts did not show any performance obligations separate from the guarantees given. Consequently, the cost related to guarantees given is recognised in provisions for risks, in accordance with the provisions of the standard IAS 37 (see Note 15.2).

- Returns:

  There are no specific obligations in terms of returns when the products sold are not defective.

- Payment conditions:

  Operations related to sales of reagents and sales of equipment are paid for under the conditions defined in the contract, which may vary from one country to another. Payment deadlines are usually between 2 and 3 months.

  Customer contracts which have a financing component are operating leases, financial leasing and the provision of equipment. In these cases, the payments are made according to the payment schedule defined contractually.

The procedures for the recognition of revenue do not require significant judgements.

Also, the analysis carried out by the Group did not identify any assets in relation to marginal costs of obtaining the contract or contract performance costs, nor specific points pursuant to the distinction between agent and principal.

The Group acts as principal in its relationships with customers.

The table below presents the breakdown of sales according to the different revenue categories, in accordance with IFRS 15.

In millions of euros	Dec 31, 2018	Dec 31, 2017 Adjusted
Sales of equipment	217.4	213.6
Sales of reagents	1,989.1	1,877.2
Sales of services	157.8	146.9
Equipment rental*	34.9	31.8
Other revenue	22.2	18.7
SALES	**2,421.3**	**2,288.2**

* *Equipment leasing includes rent and the share of revenue due to the sale of the reagents reclassified as rent for equipment provision contracts (see above).*

Sales are measured at the fair value of the consideration received or receivable, net of any discounts and rebates granted to customers. Sales taxes and value-added taxes are not included in sales.

The sectoral breakdown of the revenue is given in Note 3.5. The breakdown by technology is given in Note 3.6. The analysis performed according to IFRS 15 did not lead to presenting other breakdowns of revenue.

3.1.2 Other operating income

The other income is essentially composed of licence fees and subsidies. The rules on the recognition of other income are presented below:

- other income related to customer contracts: it is composed of reassigned royalties; the analysis of licence contracts according to the IFRS 15 standard led to them being considered as giving a right of access to intellectual property. As the obligation for performance is fulfilled gradually, the revenue is recognised over the period of the contract;
- other income not related to customer contracts: this mainly corresponds to research subsidies received and research tax credits, considered equivalent to subsidies according to the IAS 20 standard (see Note 19).

3.2 Recurring expenses

Cost of sales includes the following:

- the cost of raw materials consumed, including freight, direct and indirect personnel expenses for production personnel, the depreciation of assets used in production, all external expenses related to manufacturing (utilities, maintenance, tools, etc.), as well as indirect expenses (the Group's share of expenses such as purchasing, human resources and IT). Expenses relating to areas such as quality control, production quality assurance, engineering, business processes and logistics are included in production costs;
- royalties paid in relation to marketed products;
- distribution expenses, including shipping and warehousing, as well as the cost of shipping finished products to distribution centres or end customers;
- depreciation of instruments placed with or leased to customers;
- technical support expenses, including the cost of installing and maintaining instruments placed or sold, irrespective of whether such services are billed separately. Also included under this heading are personnel expenses, travel expenses and the cost of spare parts, as well as movements in provisions for warranties granted at the time instruments are sold.

Operating expenses

Selling and marketing expenses include expenses incurred by the Strategy, Marketing, Sales and Sales Administration Departments. They also include sales bonuses and commissions paid to employees in the Group's Sales Departments and to independent sales agents. Advertising and promotional costs are also classified as selling and marketing expenses.

General and administrative expenses comprise the cost of general management and support services (Human Resources, Legal, Finance), excluding the portion of costs incurred by these departments that is allocated to the other departments that directly use their services.

Research & development expenses include all costs concerning in-house and outsourced research & development work on new products other than software (design costs) as well as expenses related to regulatory affairs, intellectual property, technological monitoring and research & development quality assurance. Subsidies received in connection with research programs are shown in other operating income (see Note 3.1.2).

Royalty payments (fixed or proportional) are included in the cost of sales of the corresponding products. If no product is marketed or marketable in the short term, these payments are classified as research & development expenses.

Other information relating to recurring expenses

Variable compensation (performance-related bonuses, commissions, discretionary and non-discretionary profit-sharing) as well as share-based payments are included in the personnel expenses of the departments concerned.

In the context of long-term employee benefits, current service costs and the interest cost net of the return on plan assets are recognised within operating income before non-recurring items.

CICE tax credits (*crédit d'impôt pour la compétitivité et l'emploi*) designed to promote competitiveness and employment in France are recognised as a deduction from personnel costs.

The C.V.A.E. Corporate value added tax (*cotisation sur la valeur ajoutée des entreprises*) and the C.F.E. Corporate real estate tax (*cotisation foncière des entreprises*) are classified under operating expenses given that the added value generated by the Group's French operations significantly exceeds their taxable income.

Foreign exchange gains and losses related to transactions are included in the income statement line corresponding to the category of the transaction concerned (primarily sales, cost of sales and financial expenses). The presentation of foreign exchange gains and losses related to derivative instruments is given in Note 28).

3.3 Contributive operating income before non-recurring items and operating income before non-recurring items

The Group uses contributive operating income before non-recurring items as one of its key financial performance indicators. It corresponds to recurring income less recurring expenses as defined in Notes 3.1 and 3.2. It excludes non-recurring income and expense from operations (as defined in Note 24.1) as well as acquisition fees and amortisation of the assets acquired and valued as part of the BioFire purchase price allocation.

The expenses relative to the acquisition of Biofire and amortisation of goodwill are presented on a separate line in current operating income. Depreciation and amortisation charges relating to other prior acquisitions have not been restated as they are not deemed to be material.

In 2018, operating income before non-recurring items is the sum of contributive operating income before non-recurring items and costs related to the amortisation of goodwill related to BioFire (see Note 23).

3.4 Segment information

Pursuant to IFRS 8 "Operating Segments", the Group has identified only one operating segment: the *in vitro* diagnostics segment and no geographic segments.

In accordance with IFRS 8, in Note 3.5 the Group discloses information on sales and assets broken down by geographical area, which has been prepared using the same accounting policies as those applied to prepare the consolidated financial statements.

3.5 Information by geographic area

Geographical areas have been determined by combining countries with similar economic characteristics and similar risk, profitability, strategy, and regulatory profiles. Group sales in the Middle East – Africa region are generated in a heterogeneous set of countries, mainly through distributors or agents, and in certain countries via local distribution subsidiaries. The distributors and agents are for the most part in direct contact with the French Company bioMérieux SA, which explains their being grouped with the Europe region.

The information by geographic area shown in the tables below has been prepared in accordance with the accounting principles used to prepare the consolidated financial statements.

DECEMBER 31, 2018 *In millions of euros*	Americas	EMEA	Aspac	Corporate	Group
Consolidated sales	**1,069.4**	**916.6**	**429.5**	**5.8**	**2,421.3**
Cost of sales	(396.0)	(420.1)	(208.8)	(94.2)	(1,119.1)
Gross profit	**673.4**	**496.5**	**220.7**	**(88.4)**	**1,302.2**
% of sales	*63%*	*54%*	*51%*		
Other operating income and expenses	(239.4)	(164.5)	(83.9)	(453.5)	(941.3)
CONTRIBUTIVE OPERATING INCOME BEFORE NON-RECURRING ITEMS	**434.0**	**331.9**	**136.8**	**(541.9)**	**360.9**
% of sales	*41%*	*36%*	*32%*		

DECEMBER 31, 2017 *In millions of euros*	Americas	EMEA	Aspac	Corporate	Group
Consolidated sales	**1,007.1**	**879.7**	**398.3**	**3.1**	**2,288.2**
Cost of sales	(411.8)	(448.1)	(182.3)	(34.2)	(1,076.4)
Gross profit	**595.3**	**431.6**	**216.0**	**(31.1)**	**1,211.8**
% of sales	*59%*	*49%*	*54%*		
Other operating income and expenses	(224.9)	(148.8)	(78.0)	(425.4)	(877.1)
CONTRIBUTIVE OPERATING INCOME BEFORE NON-RECURRING ITEMS	**370.4**	**282.8**	**138.0**	**(456.5)**	**334.7**
% of sales	*37%*	*32%*	*35%*		

DECEMBER 31, 2018 *In millions of euros*	Americas	EMEA	Aspac	Corporate	Group
Non-current assets					
Intangible assets	20.7	34.5	4.6	447.5	507.3
Goodwill				616.5	616.5
Property, plant and equipment	338.1	231.1	38.3	199.9	807.5
Working capital requirement					
Inventories and work-in progress	175.1	176.2	63.7		414.9
Trade receivables and assets related to contracts with customers	183.0	248.7	58.2		490.0
Trade payables	(42.2)	(39.1)	(95.6)		(176.9)
ASSETS HELD FOR SALE			**0.1**		**0.1**

DECEMBER 31, 2017 *In millions of euros*	Americas	EMEA	Aspac	Corporate	Group
Non-current assets					
Intangible assets	13.3	36.0	5.1	376.4	430.7
Goodwill				442.7	442.7
Property, plant and equipment	283.2	217.7	29.1	181.4	711.4
Working capital requirement					
Inventories and work-in progress	163.4	167.3	49.5		380.3
Trade receivables and assets related to contracts with customers	169.8	239.7	50.6		460.1
Trade payables	(63.1)	(39.8)	(58.3)		(161.3)
ASSETS HELD FOR SALE			**2.1**		**2.1**

The regional data include the commercial activities, corresponding mainly to the sales made in each of the geographic areas, the related cost of sales and the operating expenses necessary for these commercial activities. The regional data also include the non-allocated costs of the production sites in these geographical areas. The revenue is a net consolidated contribution (it does not include inter-company revenue with the other zones).

Corporate data mainly include the research costs incurred by the Clinical and Industrial units, as well as the costs incurred by the Group's Corporate functions and revenue from companion test research & development partnership agreements.

Intangible assets recorded in the Corporate column mainly correspond to goodwill and to technologies acquired by the Group.

3.6 Information by technology and application

The table below provides a breakdown of sales by technology and application:

In millions of euros	Dec 31, 2018	Dec 31, 2017
Clinical applications	**1,987.8**	**1,875.7**
Microbiology	964.9	946.4
Immunoassays	441.8	457.3
Molecular biology	549.0	440.4
Other lines	32.1	31.6
Industrial applications	**433.5**	**412.5**
TOTAL	**2,421.3**	**2,288.2**

The other ranges mainly include the activity of the subsidiary BioFire Defense for which the revenue stood at €21.1 million in 2018 and €19.7 million in 2017.

Note 4. Intangible assets

4.1 Accounting principles

4.1.1 Research & development expenses (excluding software development costs)

In accordance with IAS 38 "Intangible Assets", research expenses are not capitalised.

Under IAS 38, development expenses must be recognised as intangible assets whenever specific conditions are met, related to technical feasibility and marketing and profitability prospects. Given the high level of uncertainty attached to development projects carried out by the Group, these recognition criteria are not met until the regulatory procedures required for the sale of the products concerned have been finalised. As most costs are incurred before that stage, development expenses are recognised in the consolidated income statement in the period during which they are incurred.

Development costs are recognised as part of a business combination at the fair value of the projects identified in the balance sheet at acquisition, in accordance with the provisions of IFRS 3 (revised). These costs are amortised from the date of marketing of the lines affected by the projects in a linear fashion over their expected useful life.

Development expenses related to projects on going at the acquisition date continue to be capitalised until the date the corresponding product lines are marketed.

Development expenses incurred after the business combination date and related to new projects are recognised in accordance with IAS 38 as described previously. In practice, all subsequent costs are expensed.

4.1.2 Other intangible assets

Other intangible assets mainly include patents, licenses, elements of intellectual property and computer software. They all have finite useful lives and are initially recognised as follows:

- if purchased: at their purchase price;
- in the case of business combinations: at fair value, generally based on the price paid (where the price of the intangible asset is identified), or based on the discounted value of estimated future cash flows;
- in the case of internal production: at their cost price for the Group.

Significant costs directly attributable to the creation or improvement of software developed in-house are capitalised if it is considered probable that they will generate future economic benefits. Other development costs are expensed as incurred. In the case of software, only in-house and outsourced development costs related to organic analyses, programming, tests, trials and user documentation are capitalised.

Intangible assets are amortised in accordance with the expected pattern of consumption of future economic benefits embodied in the asset concerned, generally on a straight line basis over periods of:

- 5 to 20 years for patents, licences, technologies;
- 10 years for major integrated management software (such as ERP systems);
- 3 to 6 years for other computer software.

Software is amortised when it comes into operational effect in each subsidiary, on a phased basis where applicable.

Intangible assets are carried at their initial cost less accumulated amortisation and any accumulated impairment losses. Amortisation is recognised in the consolidated income statement based on the assets' function. Impairment losses are recognised under "Other non-recurring income and expenses from operations, net" if they meet the applicable definition (see Note 24.1). For ERP-type management software, any termination of a project or batch constitutes an indication that the asset is impaired.

4.2 Changes

Gross value *In millions of euros*	Patents Technology	Software	Other	Total
DECEMBER 31, 2016	**588.3**	**170.9**	**24.2**	**783.5**
Translation adjustments	(49.9)	(7.3)	(2.0)	(59.1)
Acquisitions/Increases	1.4	3.8	18.4	23.6
Changes in Group structure	0.0	0.0	0.0	0.0
Disposals/Decreases	0.0	0.1	(0.2)	0.0
Reclassifications	(1.0)	11.8	(7.4)	3.4
DECEMBER 31, 2017	**538.8**	**179.4**	**33.1**	**751.3**
Translation adjustments	18.5	1.7	1.0	21.2
Acquisitions/Increases	0.6	7.7	23.0	31.3
Changes in Group structure	90.3	0.0	0.0	90.3
Disposals/Decreases	(6.4)	(0.7)	(0.8)	(7.9)
Reclassifications	0.0	17.0	(15.1)	1.9
DECEMBER 31, 2018	**641.9**	**205.2**	**41.2**	**888.2**

Accumulated depreciation and impairments *In millions of euros*	Patents Technology	Software	Other	Total
DECEMBER 31, 2016	**176.5**	**111.6**	**2.8**	**291.0**
Translation adjustments	(14.4)	(5.1)	0.1	(19.4)
Additions	29.6	18.5	1.0	49.1
Changes in Group structure	0.0	0.0	0.0	0.0
Reversals/Disposals	0.0	-0.1	0.0	-0.1
Reclassifications	0.0	0.0	0.1	0.1
DECEMBER 31, 2017	**191.7**	**125.0**	**3.9**	**320.7**
Translation adjustments	5.4	1.4	0.1	6.9
Additions	40.8	19.7	0.8	61.3
Changes in Group structure	0.0	0.0	0.0	0.0
Reversals/Disposals	(6.3)	(0.8)	(0.8)	(8.0)
Reclassifications	0.0	0.0	0.0	0.0
DECEMBER 31, 2018	**231.5**	**145.3**	**4.0**	**380.9**

Carrying amount *In millions of euros*	Patents Technology	Software	Others[(d)]	Total
DECEMBER 31, 2016	**411.8**	**59.4**	**21.5**	**492.6**
DECEMBER 31, 2017	**347.1**	**54.4**	**29.2**	**430.7**
DECEMBER 31, 2018	**410.2**	**59.9**	**37.2**	**507.3**

The line "reclassifications" mainly corresponds to assets under construction put into service during the financial year.

The gross value of intangible assets increased by €144.4 million, mainly due to the entry into scope of Hybiome (€55.3 million) and Astute (€37.1 million).

The gross value of intangible assets in progress represents €41.6 million at December 31, 2018 compared to €26.5 million in 2017.

The review of impairment indices on assets with defined useful lives as defined in Note 5.2 led the Group to recognise depreciation on technology assets of €9.9 million in order to bring the net value of these assets to 0, given the development prospects for the Group.

Note 5 Goodwill

5.1 Accounting principles

In application of the revised version of IFRS 3, goodwill represents the excess of the cost of a business combination (excluding acquisition-related costs) and the fair value of the Group's share of the acquiree's identifiable assets, liabilities and contingent liabilities on the acquisition date. Goodwill is measured in the acquiree's functional currency. Provisional values may be assigned to fair values and goodwill during a "measurement period" which may not exceed one year from the acquisition date. Any changes made to provisional values after the end of the measurement period are recognised in income, including those concerning deferred tax assets.

The purchase price of a business combination includes the estimated impact of any contingent consideration. This consideration is measured by applying the criteria included in the acquisition agreement, such as sales or earnings targets, to forecasts that are deemed to be highly probable. It is then remeasured at the end of each reporting period, and any changes are recorded in income after the acquisition date (including during the measurement period). They are discounted if the impact is material. Any discounting adjustments to the carrying amount of the liability are recognised in "Cost of net debt".

Non-controlling interests are measured at the time of the acquisition either at fair value (full goodwill method) or at the non-controlling interest's proportionate share of the acquired Company's net assets (partial goodwill method). The option is taken for each acquisition.

When the Group purchases an additional interest in an acquired entity after the acquisition date, the difference between the consideration paid and the Group's share in the acquiree's net assets is recognised directly in consolidated reserves. Similarly, if the Group sells an interest in an acquired entity without losing control, the resulting impact is also recognised directly in consolidated reserves.

In case of a put option on minority interests, borrowing is recognised for its present value against reserves. At each closure, variations in fair value of the debt, determined according to contractual provisions, are recognised in financial profit/loss, including the impact of accretion. The minority interests currently subject to puts retain all of the rights and benefits associated with the shares until the possible exercise of the option. Recognition of the debt related to the put was done without changing the value of goodwill.

Goodwill is recognised on a separate line of the balance sheet at cost less any accumulated impairment losses. Any negative goodwill is recognised directly in income during the year in which the controlling interest was acquired.

In compliance with IFRS 3 "Business Combinations", goodwill is not amortised. On the acquisition date they are attached to a cash-generating unit depending on the synergies expected for the Group (see Note 5.2). They are tested at least once a year for impairment and whenever there is an indication that they may be impaired. The methods used for performing the tests and recognising any identified impairment losses are described in Note 5.2 "Impairment of non-current assets".

5.2 Impairment of non-current assets

The Group systematically carries out annual impairment tests on goodwill and other intangible assets with an indefinite useful life (the Group did not have any such assets in the years presented in these consolidated financial statements).

Property, plant and equipment and intangible assets with a finite useful life are tested for impairment whenever there is an indication that they may be impaired.

A cash-generating unit (CGU) corresponds either to a legal entity or to a product line (a group of property, plant and equipment [mainly production plants] and intangible assets [essentially technology] which generate cash flows as a result of products based on the same technology).

Impairment testing is used to determine the recoverable amount of a CGU or group of CGUs, representing the higher of their value in use and fair value less costs to sell.

In practice, the value in use of a CGU or group of CGUs is determined primarily on the basis of discounted operating cash flow projections covering a period of five years and based on the most recent business plan, and a terminal value.

The growth assumptions used to calculate the value in use for the business plan projection time horizon are consistent with available market information and conservative assumptions have been used for determining the terminal value, including a perpetuity growth rate typically corresponding to 1.5%, except for the molecular business for which a 2% growth rate was used.

Cash flow projections do not include any expansion investments or restructurings that have not already commenced.

The discount rate applied to cash flows corresponds to the Weighted Average Cost of Capital (WACC), calculated using a risk-free rate (French government OAT bond rate), the equity market risk premium and the beta ratio (which adjusts the overall equity market risk in relation to the specific industry risk). In certain cases, a specific risk premium is included, chiefly to reflect technology risk and the individual market risk, like a country risk premium to take account of the exposure of each CGU to macroeconomic risks. The WACC determined by the Group is compared with the figure calculated by analysts who track the Company's stock. The discount rates calculated for the main CGUs (technological product lines) were between 7.5% and 9.4% in 2018, and between 7.4% and 9.8% in 2017. These rates are understood after tax. The application of a pre-tax WACC to pre-tax cash flows would give an identical result.

Tests were performed to assess the sensitivity of the recoverable amounts to changes in certain actuarial and operating assumptions (see Note 5.3).

The Group recognises an impairment loss where the value in use of these CGUs falls below the carrying amount. The impairment loss is allocated first to reduce the carrying amount of any goodwill, with the

residual amount allocated to the other assets of the unit, except if this reduces the carrying amount of those assets below their fair value.

Impairment losses are recognised under "Other non-recurring income and expenses from operations, net" if they meet the applicable definition (see Note 24.1). Impairment losses against goodwill in respect of fully consolidated entities may not be reversed unless the asset is sold.

5.3 Changes

In 2018, in response to the expectations of its customers, the Group developed its commercial offering by including predictive Data Analytics solutions in the Bacteriology offer. Consequently, the "Data Analytics" CGU was merged with the Bacteriology CGU.

Movements in this caption can be analysed as follows:

CGU	*In millions of euros*	Dec 31, 2018	Dec 31, 2017
Hybiome	Hybiome*	**138.2**	**0.0**
Molecular biology		**156.8**	**150.6**
	BioFire	137.1	130.9
	Argène	19.3	19.3
	RAS Lifesciences	0.4	0.5
Industrial applications		**143.5**	**143.9**
	AES	117.1	117.1
	PML (US)	11.8	11.8
	BTF (Australia)	5.5	5.8
	Hyglos	5.7	5.7
	Advencis	2.9	2.9
	CEERAM	0.5	0.5
Bacteriology		**142.9**	**143.5**
	AB bioMérieux (Sweden)	60.2	62.7
	Organon Teknika	51.9	51.3
	Applied Maths	11.4	11.4
	Bacterial Barcodes (US)	8.5	8.1
	bioMérieux Inc. (Vitek)	5.8	4.9
	MDI (US)	1.9	1.9
	bioMérieux Spain	1.8	1.8
	bioMérieux Biological products	1.4	1.4
	Micro Diagnostics (Australia)[(b)]	0.0	0.0
Immunoassays	Astute Medical Inc.*	**30.5**	**0.0**
Entities		**4.6**	**4.8**
	bioMérieux Poland	1.7	1.7
	bioMérieux Greece	1.7	1.7
	bioMérieux South Africa	1.2	1.3
CARRYING AMOUNT		**616.5**	**442.7**

* *Provisional goodwill on December 31, 2018.*

Movements in this caption can be analysed as follows:

In millions of euros	Carrying amount
DECEMBER 31, 2016	**470.6**
Translation adjustments	(26.2)
Reclassifications[(a)]	(1.7)
DECEMBER 31, 2017	**442.7**
Translation adjustments	6.0
Changes in scope of consolidation[(b)]	167.7
DECEMBER 31, 2018	**616.5**

(a) A portion of the "Bacteriology" goodwill from the acquisition of Micro Diagnostics in Australia was reclassified as Assets held for sale for an amount of €1.7 million (see Note 13.2).
(b) Related to the acquisition of 100% of Astute Medical Inc. (€28.4 million) and 54.48% of Hybiome (€139.3 million). Goodwill calculated according to the full goodwill method.

There was no provisional goodwill in 2017. The provisional goodwill on December 31, 2018 corresponded to the goodwill for Hybiome and Astute Medical Inc. (see Note 1.1).

No impairment losses were recognised in 2018 or 2017 as a result of the impairment tests carried out as described in Note 5.1.

The inputs used in the impairment tests carried out on the Group's main CGUs are set out below:

	2018			2017		
CGU	Value net[(a)]	Rate Discount rate	Perpetual growth rate	Value net[(a)]	Rate Discount rate	Perpetual growth rate
Molecular biology	156.8	9.4%	2.0%	150.6	9.8%	2.0%
Industrial applications	143.5	7.5%	1.5%	143.9	7.4%	1.5%
Bacteriology	142.9	7.5%	1.5%	132.1	7.5%	1.5%
Immunoassays	30.5	7.8%	1.5%	0.0	8.0%	1.5%

(a) Net value of goodwill assigned to the CGU.

Sales and operating margin growth assumptions are set for each CGU in accordance with the best estimates at the test date. They take into account the level of maturity of our products and target markets, and also forecast development and innovation for our ranges.

An analysis was carried out to assess the sensitivity of the impairment tests to changes in discount rates (adverse change of 100 basis points), perpetuity growth rates (adverse change of 50 basis points) and the operating margin (fall of 500 basis points in the ratio of operating income before non-recurring items to terminal value). This analysis will not lead to the recognition of additional impairment losses for the cash generating units Molecular Biology, Immunoassays and Industrial Applications. Concerning the Bacteriology cash generating unit, depreciation will be recognised in the case of a drop in profitability greater than 318 basis points. This hypothesis is not reasonably probable.

Note 6 Property, plant and equipment – finance lease receivables

6.1 Accounting principles

As prescribed by IAS 16 "Property, Plant and Equipment", items of property, plant and equipment are initially recognised at their purchase or production cost or at their acquisition-date fair value if acquired as part of a business combination. They are not revalued. Any revaluations carried out by Group companies in their individual accounts are eliminated when preparing the consolidated financial statements.

Property, plant and equipment are recorded using the component approach. Under this approach, each component of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the asset and which has a different useful life to that of the asset as a whole is recognised and depreciated separately. The only Group assets to which this method is applied are buildings.

The Group's application of IAS 23 "Borrowing Costs" did not lead to the capitalisation of material borrowing costs as the Group does not have a material level of debt resulting from purchases of property, plant and equipment.

Routine maintenance and repair costs of property, plant and equipment is expensed as incurred. Other subsequent expenses are capitalised only if they satisfy the applicable recognition criteria, such as the replacement of an identified component.

Property, plant and equipment are carried at cost less accumulated depreciation and any accumulated impairment losses.

The depreciable value of property, plant and equipment corresponds to their acquisition cost as they are not considered to have any material residual value. The straight-line method of depreciation is used for these assets.

The assets are depreciated over their estimated useful lives as follows:

- machinery and equipment: 3 to 10 years
- instruments: 5 to 10 years
- shell: 30 to 40 years
- finishing work, fixtures and fittings: 10 to 20 years

Depreciation periods in respect of buildings are calculated separately for each component.

The useful lives of items of property, plant and equipment are reviewed periodically. The impact of any adjustments is accounted for prospectively as a change in accounting estimates.

In 2018, this review led the Group to extend the depreciation periods on instruments from durations of between three and ten years to durations of between five and ten years. The impact of this change is a reduction in the depreciation expense for instruments of around €11 million on the consolidated financial statements.

Impairment tests are carried out for property, plant and equipment whenever events or market developments indicate that an asset may have declined in value. If an asset's recoverable amount (see Note 5.2) is less than its carrying amount, either its useful life is adjusted or an impairment loss is recorded in "Other non-recurring income and expenses from operations, net", if the applicable definition is met (see Note 24.1).

Finance leases

***As lessee*:** leases are classified as finance leases whenever they transfer to the lessee substantially all of the risks and rewards incidental to ownership. Leases qualify as finance leases based on the substance of each contract, and notably when:

- ownership of the leased asset is transferred to the lessee at the end of the lease term;
- the lessee has the option to purchase the asset at a preferential price;
- the lease term covers the major part of the leased asset's economic life;
- the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset;
- the leased assets are of such a specialised nature that only the lessee can use them without making major modifications.

Whenever the Group leases property under an agreement classified as a finance lease, the fair value of the asset concerned or, if lower, the present value of the minimum lease payments, is capitalised and depreciated over the asset's useful life. A corresponding liability is recognised in the balance sheet. Lease payments are apportioned between the finance charge and the reduction of the outstanding liability.

Other leases are classified as operating leases and the lease payments are expensed on a straight-line basis over the term of the lease.

***As lessor*:** when the Group leases assets to third parties on terms equivalent to a sale, the assets are recorded as though they had been sold, as prescribed by IAS 17 "Leases". The long-term portion of the lease payments due is recorded under "Other non-current assets" and the short-term portion are recognised under "Trade receivables". The corresponding financial income is recognised in the income statement during the period in which it is received, under "Other financial income and expenses".

6.2 Analysis of movements in property, plant and equipment

GROSS VALUE *In millions of euros*	Land	Buildings	Materials and tools	Capitalised instruments	Other capital assets	Capital assets under construction	Total
DECEMBER 31, 2016	**39.9**	**456.6**	**380.5**	**360.1**	**158.2**	**196.4**	**1,591.7**
Translation adjustments	(1.4)	(23.8)	(24.0)	(15.4)	(10.0)	(13.5)	(88.2)
Changes in scope of consolidation[a]			0.0		0.0		0.0
Acquisitions/Increases	1.6	17.2	18.6	50.7	11.6	57.3	157.0
Disposals/Decreases	(0.1)	(8.1)	(3.8)	(30.9)	(6.7)	(0.3)	(49.9)
Reclassifications	0.7	107.2	54.8	(9.6)	4.8	(173.9)	(16.0)
DECEMBER 31, 2017	**40.6**	**549.2**	**426.1**	**354.8**	**157.9**	**65.9**	**1,594.5**
Translation adjustments	0.4	8.8	9.5	(0.5)	2.7	2.6	23.4
Changes in Group structure					2.5		2.5
Acquisitions/Increases		10.1	24.9	56.8	8.4	101.6	201.8
Disposals/Decreases	(0.1)	(5.9)	(7.1)	(31.5)	(9.9)		(54.4)
Reclassifications	0.4	19.7	13.7	0.1	5.3	(41.1)	(1.8)
DECEMBER 31, 2018	**41.3**	**582.0**	**467.1**	**379.6**	**166.9**	**129.0**	**1,765.9**

ACCUMULATED DEPRECIATION AND IMPAIRMENT *In millions of euros*	Land	Buildings	Materials and tools	Capitalised instruments	Other capital assets	Capital assets under construction	Total
DECEMBER 31, 2016	**1.8**	**233.3**	**248.1**	**263.4**	**110.6**		**857.1**
Translation adjustments	(0.1)	(10.0)	(13.5)	(10.1)	(6.6)		(40.3)
Changes in Group structure			0.0		0.0		0.0
Provisions for impairment[d]	0.2	29.5	34.4	32.1	13.5		109.7
Disposals/Decreases		(4.8)	(3.2)	(26.9)	(6.7)		(41.5)
Reclassifications		0.0	(1.5)	0.1	(0.4)		(1.8)
DECEMBER 31, 2017	**1.8**	**247.9**	**264.3**	**258.6**	**110.4**		**883.1**
Translation adjustments	0.0	3.1	5.1	(0.7)	1.8		9.3
Changes in Group structure					2.2		2.2
Additions	0.2	29.9	38.2	24.1	17.6	2.5	112.6
Disposals/Decreases	0.0	(5.1)	(7.0)	(26.8)	(9.6)		(48.4)
Reclassifications			0.3	(0.1)	(0.4)		(0.1)
DECEMBER 31, 2018	**2.1**	**275.8**	**300.9**	**255.2**	**122.1**	**2.5**	**958.4**

CARRYING AMOUNT *In millions of euros*	Land	Buildings	Materials and tools	Capitalised instruments	Other capital assets	Capital assets under construction	Total
DECEMBER 31, 2016	**38.1**	**223.3**	**132.4**	**96.6**	**47.7**	**196.4**	**734.6**
DECEMBER 31, 2017	**38.7**	**301.2**	**161.8**	**96.2**	**47.5**	**65.9**	**711.4**
DECEMBER 31, 2018	**39.2**	**306.2**	**166.2**	**124.5**	**44.8**	**126.5**	**807.5**

The assets under construction mainly concern the construction of a new warehouse in Salt Lake City, the extension of the Craponne site in France and the construction of a new building at Marcy l'Etoile for the R&D activities, for which commissioning is planned in 2019.

The impairment tests did not lead to the recognition of significant impairment over the financial years presented.

6.3 Property, plant and equipment acquired under finance leases

Where an asset is leased under a finance lease that transfers to the Group substantially all of the risks and rewards incidental to ownership of the leased asset, the asset is accounted for as property, plant and equipment as described in Note 6.1 "Property, plant and equipment".

The corresponding finance lease liability for these capitalised assets – which is included in the balance sheet under borrowings was €37.7 million at December 31, 2018 and €41.7 million at December 31, 2017 (see Note 16.6).

ASSETS HELD UNDER FINANCE LEASES RECOGNISED AS PROPERTY, PLANT AND EQUIPMENT

In millions of euros	Land	Buildings	Materials & tools	Other	Total
DECEMBER 31, 2016					
Gross value	2.7	52.0	0.8	2.3	57.8
Accumulated depreciation	0.0	(5.1)	(0.6)	(2.2)	(8.0)
Carrying amount	**2.7**	**46.8**	**0.1**	**0.1**	**49.8**
DECEMBER 31, 2017					
Gross value	2.7	53.5	0.7	2.3	59.3
Accumulated depreciation	0.0	(7.9)	(0.6)	(2.2)	(10.7)
Carrying amount	**2.7**	**45.6**	**0.1**	**0.1**	**48.6**
DECEMBER 31, 2018					
Gross value	2.7	53.5	0.7	2.2	59.1
Accumulated depreciation	0.0	(10.8)	(0.5)	(2.2)	(13.5)
CARRYING AMOUNT	**2.7**	**42.7**	**0.1**	**0.0**	**45.6**

The changes to the item come mainly from amortisation concerning the new Campus de l'Etoile site acquired in 2016 and the new building in Italy acquired in 2017.

6.4 Finance lease receivables

Certain instruments are sold *via* finance lease arrangements (see Note 6.1). The usual lease term is five years.

Finance lease receivables totalled €24.5 million at December 31, 2018.

In millions of euros	At least one year	Due in one to five years	At more than 5 years	TOTAL
Gross value of finance lease receivables	9.4	16.9	0.1	26.4
Accrued interest	(0.7)	(0.8)	0.0	(1.6)
Present value of minimum future lease payments	8.6	16.1	0.1	24.8
Impairment losses	(0.3)			(0.3)
NET PRESENT VALUE OF MINIMUM FUTURE LEASE PAYMENTS	**8.3**	**16.1**	**0.1**	**24.5**

The current portion of finance lease receivables is shown in trade receivables (see Note 9), while the non-current portion is carried in other non-current assets for €16.2 million.

The depreciation rules applied are presented in Note 9.

Note 7 Non-current financial assets

7.1 Accounting principles

Non-current financial assets include investments in non-consolidated companies, loans and receivables maturing in more than one year – including pension plan assets whenever these have not been definitively allocated to cover corresponding obligations – and deposits and guarantees. They are recognised and measured in compliance with the rules described in Note 27.

In application of the IFRS 9 standard, non-current financial assets are broken down into 3 categories:

- financial assets assessed at amortised cost:

  It concerns financial assets for which the objective of the economic model is to receive contractual flows, and for which the contractual conditions specify, at particular dates, flows corresponding only to repayments of capital and interest. They correspond to loans, deposits and sureties;
- financial assets valued at fair value, with recognition in other comprehensive income:
  - variations in fair value recyclable to profit/loss: these are financial assets for which the objective of the economic model is both to receive contractual flows and the sale of assets, and for which the contractual conditions specify, at particular dates, flows corresponding only to repayments of capital and interest. The Group has no significant assets within this category,
  - variations in fair value non-recyclable to profit/loss: these are assets that are strategic for the Group. They correspond to non-consolidated equity investments;
- financial assets valued at fair value through profit/loss: these are securities held by the group for transaction purposes. On December 31, 2018, this category was not used, the Group having decided to opt for recognition in other non-recyclable comprehensive income.

Assets valued at amortised cost

The amortised cost is determined according to the effective interest rate method, as defined by the IFRS 9 standard. This rate is determined when putting in place the related contract.

Financial assets valued at fair value

Fair value is determined according to the methodology defined by the standard IFRS 13, according to the 3 levels of fair value defined in Note 27.1.

In exceptional cases where fair value of financial assets cannot be determined reliably (lack of recent information, wide range of valuations...), the cost will be considered as the best estimate of the fair value.

No reclassification between the various categories occurred over the financial years presented.

The breakdown of other financial assets for which the Group has opted for this presentation is presented separately in the table below.

Impact of the application of IFRS 9

The implementation of IFRS 9 led to the disappearance of the concepts of financial assets available- for-sale and financial assets held-to-maturity. No financial asset was previously allocated to this latter category.

7.2 Changes

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Loans and receivables	13.0	7.0
Securities valued at fair value against other comprehensive income	58.9	50.9
TOTAL	**71.8**	**57.9**

The loans and receivables include a deposit on an escrow account made in the context of the acquisition of Hybiome in 2018 for €1.8 million, as well as a deposit guarantee intended to cover post-employment benefit obligations in Germany for €2.5 million.

In millions of euros	Gross value	Variation in fair value against other comprehensive income	Impairment losses	Carrying amount
DECEMBER 31, 2016	**40.5**	**(3.4)**	**(0.1)**	**36.9**
Translation adjustments	(0.6)		0.0	(0.6)
Acquisitions/Increases	15.1		(0.2)	14.9
Disposals/Decreases	(1.9)	0.9	0.0	(1.0)
Reclassifications	0.7			0.7
Changes in fair value of financial instruments		6.9		6.9
DECEMBER 31, 2017	**53.9**	**4.3**	**(0.3)**	**57.9**
Translation adjustments	0.0		0.0	0.0
Acquisitions/Increases	12.7		0.0	12.7
Disposals/Decreases	(1.2)		0.0	(1.2)
Reclassifications and changes in fair value				0.0
Changes in fair value of financial instruments		2.4		2.4
DECEMBER 31, 2018	**65.4**	**6.7**	**(0.3)**	**71.8**

There was no capital gain on sale of financial assets recognised at fair value through comprehensive income non-recyclable to profit/loss over the financial years presented.

There was no change in fair value recognised through profit/loss in 2018.

The acquisitions of the financial year essentially concerned the firm commitment to subscribe to the professional capital investment fund Sino-French Innovation for €5 million, and the deposit granted in the context of the acquisition of Hybiome.

bioMérieux SA contributed its GENEURO securities to GNEH, receiving GNEH securities of equal value in return. The GNEH securities are valued, at December 31, 2018, based on the market price of Geneuro because it is a transparent holding, the aim of which is to hold Geneuro securities.

The change in fair value recorded in other comprehensive income mainly concerns Quanterix, GNEH and Labtech securities.

In practice, the application of IFRS 9 had no impact on the consolidated profit/loss and the comprehensive income, but only on a reclassification within other comprehensive income of the variation in the fair value of non-consolidated securities.

The table below presents the impacts of IFRS 9 on the statement of other comprehensive income over comparable financial years:

In millions of euros	12/31/2017 restated	12/31/2017 reported
Net income for the period	**237.6**	**237.6**
Items to be reclassified to income	**(80.0)**	**(72.9)**
Fair value gains (losses) on financial hedging instruments	2.4	9.3
Tax effect	(0.9)	(0.6)
Movements in cumulative translation adjustments	(81.5)	(81.5)
Items not to be reclassified to income	**(0.5)**	**(7.7)**
Fair value gains (losses) on financial assets	6.9	
Tax effect	0.4	
Remeasurement of employee benefits	2.6	2.6
Tax effect	(10.4)	(10.4)
TOTAL OTHER COMPREHENSIVE INCOME	**(80.6)**	**(80.6)**
TOTAL COMPREHENSIVE INCOME	**157.0**	**157.0**
Non- controlling interests	(0.6)	(0.6)
ATTRIBUTABLE TO OWNERS OF THE PARENT	**157.5**	**157.5**

In the financial statements published in 2017, the change in the fair value of financial assets was brought together in the item "Changes in the fair value of financial hedging instruments" (the associated tax was processed in the same way).

The analysis carried out did not lead to the recognition of securities in the category of changes in fair value recognised in other comprehensive income recyclable in profit and loss.

Consequently, the Group reviewed all shares in non-consolidated companies, in order to define for each one the applicable recognition method. This analysis is presented in the table below:

	Category according to IAS 39	Category according to IFRS 9
In millions of euros	Definition	Definition
Quanterix	Available-for-sale financial assets assessed at fair value against other comprehensive income	Financial assets assessed at fair value against other comprehensive income
Labtech/LBT Innovations	Available-for-sale financial assets assessed at fair value against other comprehensive income	Financial assets assessed at fair value against other comprehensive income
Geneuro/GNEH	Available-for-sale financial assets assessed at fair value against other comprehensive income	Financial assets assessed at fair value against other comprehensive income
QVELLA	Available-for-sale financial assets assessed at cost through profit and loss	Financial assets assessed at fair value against other comprehensive income[(a)]
Banyan Biomarkers	Available-for-sale financial assets assessed at cost through profit and loss	Financial assets assessed at fair value against other comprehensive income[(a)]
Other securities	Available-for-sale financial assets assessed at cost through profit and loss	Financial assets assessed at fair value through profit and loss[(a)]

(a) In the exceptional cases provided by the standard (absence of recent and/or reliable information, estimated range of values too broad), the Group has selected the cost as the most appropriate estimate of fair value.

In the cases provided by IFRS 9 (securities not held for transaction purposes), the option for the recognition of changes in fair value not recyclable in profit and loss was irrevocably taken on January 1, 2017.

The retrospective application of IFRS 9 has not had an impact on consolidated net income and consolidated equity as the changes in the fair value of shares in non-consolidated companies were already mainly recorded in other comprehensive income, and no significant disposals were made after January 1, 2017. As indicated in the summary table below, the share of changes recorded in profit and loss was not significant.

	Jan. 01, 2017			Dec. 31, 2017			Dec. 31, 2018		
In millions of euros	NBV	Of which change in JV through profit and loss	Of which change in fair value through other comprehensive income	NBV	Of which change in JV through profit and loss	Of which change in fair value through other comprehensive income	NBV	Of which change in JV through profit and loss	Of which change in fair value through other comprehensive income
Quanterix	17.9			27.6		9.7	32.9		5.3
Labtech / LBT Innovations	2.4		1.7	1.2		(1.2)	0.5		(0.7)
Geneuro / GNEH	7.2		7.1	5.4		(1.8)	3.2		(2.2)
QVELLA				6.0			6.0		
Banyan Biomarkers				6.4			6.4		
Sino French Innovations							5.0		
Other securities	3.3	(0.9)		4.3	(0.1)		4.8		0.0
TOTAL	**30.7**	**(0.9)**	**8.8**	**50.9**	**(0.1)**	**6.8**	**58.9**	**0.0**	**2.4**

Note 8 Inventories and work-in progress

8.1 Accounting principles

As required under IAS 2 "Inventories", inventories are measured at the lower of cost and net realisable value.

Inventories of raw materials, goods held for resale and consumables are measured at their purchase price plus related expenses using the FIFO method. Work-in-progress and finished products are measured at their actual production cost, including direct and indirect costs.

Inventories are written down where necessary, taking into account selling prices, obsolescence, residual shelf life, product condition, sale prospects and, in the case of spare parts, changes in the corresponding instruments' installed base.

8.2 Changes

In millions of euros	Dec 31, 2018	Dec 31, 2017
Raw materials	162.9	143.1
Work-in-progress	45.8	45.6
Finished products and goods held for resale	238.2	222.5
GROSS VALUE	**446.9**	**411.2**
Raw materials	(13.3)	(11.8)
Work-in-progress	(1.6)	(1.5)
Finished products and goods held for resale	(17.1)	(17.6)
PROVISIONS FOR IMPAIRMENT	**(32.0)**	**(30.9)**
Raw materials	149.6	131.3
Work-in-progress	44.2	44.1
Finished products and goods held for resale	221.1	204.9
CARRYING AMOUNT	**414.9**	**380.3**

Inventories relating to instruments account for 29.6% of gross value.

No pledges of inventories had been granted at December 31, 2018.

Note 9 Trade receivables and assets related to contracts with customers

Trade receivables and finance leasing receivables

In millions of euros	Dec 31, 2018	Dec 31, 2017
Gross trade receivables	505.9	473.7
Impairment losses	(16.0)	(13.6)
CARRYING AMOUNT	**490.0**	**460.1**

In total, 20.5% of the Group's trade receivables are due from government agencies and may be paid later than the date shown on the invoice.

Trade Receivables are recognised at amortised cost, which in practice corresponds to cost. There are no other financial assets including a financially significant component.

The due dates are mainly below 6 months except for lease contracts, financial lease contracts and contracts for the provision of equipment.

Net receivables overdue by more than 60 days relative to private companies and public organisations represent 8% of outstanding trade receivables in 2018, against 11.5% in 2017.

The weight of net additions to doubtful debts and bad debts represents €5.4 million or 0.22% of revenue.

Trade receivables include the current portion of finance lease receivables (see section 6.4).

RECEIVABLES AND ASSETS RELATED TO CONTRACTS WITH CUSTOMERS	Dec. 31, 2017	Changes in Group structure	Change in gross values	Change in provision	Currency impact	Dec. 31, 2018
Long-term finance lease receivables	14.1		1.5		0.6	16.2
NON-CURRENT ASSETS	**14.1**		**1.5**	**0.0**	**0.6**	**16.2**
Finance lease receivables	10.4		(2.4)	0.0	0.4	8.3
Gross trade receivables	449.7	0.3	35.2	(2.5)	(1.0)	481.7
Other assets related to contracts with custo	0.0					0.0
CURRENT ASSETS	**460.1**	**0.3**	**32.8**	**(2.5)**	**(0.6)**	**490.0**

The share of provisions on financial leasing receivables is not material (see Note 6.4).

Depreciation of trade receivables

Provisions for depreciation of trade receivables are recognised to take into account expected losses and are recognised according to the following model:

- doubtful customers: provisioned case-by-case;
- customers for whom impairment indices have been identified (late payment, litigation...): individual and statistical provision;
- customers with no impairment loss index at the date of closure: a provision for expected losses is recognised case-by-case, taking into account qualitative and quantitative information (*e.g.*: information on the customer, rating of the customer...) in the context of the customer credit risk monthly review process, according to information obtained on the customer.

The credit risk is assessed at each closure, taking into account guarantees received, where applicable.

Netting agreements

N/A

Other assets related to contracts with customers

There are no assets related to the costs of obtaining or implementing contracts.

Note 10 Liabilities related to contracts with customers

Liabilities related to contracts with customers correspond essentially to advances of payment received and maintenance services invoiced in advance on service contracts (see Note 17). The associated revenue is recognised in income over the period that the service is rendered.

LIABILITIES RELATED TO CONTRACTS WITH CUSTOMERS	Notes	Dec 31, 2017	Changes in Group structure	Change in gross values	Change in provision	Changes in translation differences	Dec 31, 2018
Provisions for long-term guarantee	14	1.3			-0.1	0.0	1.2
NON-CURRENT LIABILITIES		**1.3**	**0.0**	**0.0**	**-0.1**	**0.0**	**1.2**
Provisions for short-term guarantee	14	5.1			1.5	0.1	6.8
Advances received on trade receivables	17	6.5		(0.5)		(0.3)	5.7
Credit note to be issued	17	1.4		(0.2)		0.0	1.2
Income invoiced in advance	17	53.3		0.2		1.2	54.7
CURRENT LIABILITIES		**66.3**	**0.0**	**(0.5)**	**1.5**	**1.1**	**68.4**

Note 11 Other receivables

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Advances and downpayments	4.8	6.7
Prepaid expenses	14.2	16.0
Other operating receivables	42.7	52.5
CARRYING AMOUNT OF OTHER OPERATING RECEIVABLES	**61.7**	**75.1**
CURRENT TAX RECEIVABLE	**39.2**	**36.1**
Non-operating receivables	9.6	15.7
CARRYING AMOUNT OF NON-OPERATING RECEIVABLES	**9.6**	**15.7**

The other receivables related to customer contracts are not material.

Other operating receivables chiefly comprise research tax credit receivables (€11.8 million at December 31, 2018 versus €23.1 million at end-2017), and other tax-related receivables.

The non-current portion of other operating receivables totals €5.4 million and includes research tax credits.

Non-operating receivables relate primarily to the fair value of derivative instruments carried in assets (€9.3 million in 2018 versus €15.3 million in 2017), see Note 27.2.

Note 12 Cash and cash equivalents

12.1 Accounting principles

Cash and cash equivalents includes cash and short-term highly liquid investments denominated in euros and subject to an insignificant risk of changes in value and counterparty default.

Investments meeting these criteria are measured at the end of the reporting period at their fair value, with fair value gains or losses recognised in income (see Note 27).

None of the Group's investments are pledged or subject to major restrictions.

Investment securities and other cash equivalents are valued at their fair value at each closure, according to the definition given in Note 7.

There are no other current financial assets.

12.2 Changes

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Cash at bank and in hand	231.7	214.4
Cash pooled with Institut Mérieux	23.6	23.2
Short-term investments	24.8	74.4
CASH AND CASH EQUIVALENTS	**280.1**	**312.1**

Some cash investments are in SICAV money-market funds (€17.6 million at December 31, 2018 versus €67.7 million at end-2017).

Investments are placed with leading credit institutions. No adjustments were recognised in respect of the risk of non-collection associated with these financial assets following the analysis carried out pursuant to IFRS 13 (see Note 28.5).

Cash investments in SICAV money-market funds are as follows:

	Dec 31, 2018	Dec 31, 2017
Designation	BNP Paribas Deposit money-market fund	BNP Paribas Deposit money-market fund
Amount	€17.6 million	€55.6 million
Classification	Short-term money-market fund	Short-term money-market fund
ISIN Code	FR0011046085	FR0011046085
Designation		SICAV AMUNDI
Amount		€12.1 million
Classification		Short-term money-market fund
ISIN Code		FR0007435920

The Group regularly reviews the investments made by each SICAV euro money-market fund as well as their past performance in order to ensure that they qualify as cash and cash equivalents in accordance with the recognition criteria in IAS 7.

Note 13 Assets and liabilities held for sale

13.1 Accounting principles

In accordance with IFRS 5, net assets and liabilities whose recovery is expected through a sale transaction rather than by continuous usage are reclassified as assets held for sale or as liabilities held for sale.

Impairment tests were carried out by comparing the value of the net assets to their fair value less costs to sell (see Note 5.2).

13.2 Changes

In millions of euros	Dec 31, 2018	Dec 31, 2017
ASSETS HELD FOR SALE	**0.1**	**2.1**
including goodwill	0.0	1.7
LIABILITIES RELATED TO ASSETS HELD FOR SALE	**0.0**	**0.0**

In December 2018, the Group signed an agreement to dispose of one of its production and marketing activities in Australia. Consequently, the value of the assets related to this activity was depreciated by €1.9 million, of which €1.7 million was related to goodwill.

Note 14 Shareholders' equity and earnings per share

14.1 Share capital

The Company's share capital amounted to €12,029,370 at December 31, 2018 and was divided into 118,361,220 shares, of which 78,060,118 carried double voting rights. Following a decision taken by the General Meeting of March 19, 2001, the Company's bylaws no longer refer to a par value for its shares.

Other than the free shares (see Note 18.2), there were no valid dilutive rights or securities on December 31, 2018.

There were no changes in the number of outstanding shares during the period.

The Company is not subject to any specific regulatory or contractual obligations in terms of its share capital.

The Group does not have any specific policy concerning equity financing. Decisions on whether to use debt or equity financing are made on a case-by-case basis for each proposed transaction. The equity used by the Group for its own operations corresponds to its consolidated equity.

14.2 Cumulative translation adjustments

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Dollars*	35.6	(2.3)
Latin America	(14.1)	(11.0)
Europe - Middle East - Africa	(30.8)	(23.5)
Other countries	3.3	4.2
TOTAL	**(6.1)**	**(32.6)**

* *U.S. and Hong Kong dollars.*

Cumulative translation adjustments attributable to non-controlling interests total -€0,2 million at December 31, 2018. In 2018, the variation in cumulative translation adjustments was mainly related to the appreciation of the dollar, compensated by the appreciation in the Turkish lira and the Swedish krona.

14.3 Treasury shares

The Company has entered into an agreement with an investment services provider for market-making purposes. It therefore sometimes has to buy, hold and resell a small number of its own shares in connection with this agreement. It also purchases treasury shares for the purpose of allocation under the share grant plans described in Note 18.

Treasury shares held under the liquidity agreement or for the purpose of allocation under share grant plans are recorded as a deduction from equity, and the impacts of all corresponding transactions recorded in the individual financial statements are also recognised directly in equity (disposal gains and losses, impairment etc.).

At December 31, 2018, the parent company held 27 of its own shares as part of this contract. During the financial year, it purchased 740,394 and sold 718,155 treasury shares.

During the financial year, the Company acquired 365 shares to cover free share grants and definitively allocated 143 free shares to employees (see Note 18.2).

At December 31, 2018, the Company held a total of 542 treasury shares intended for free share grants authorised by the Annual General Meeting.

14.4 Minority interests

The minority interests essentially cover the Company Suzhou Hybiome Biomedical Engineering for €74 million, representing 45.52%. The impact of the share of minorities on the key aggregates of the Group is not material over the financial year.

14.5 Other comprehensive income (expense)

The main elements making up comprehensive income are the changes in the fair value of financial instruments for which changes in fair value are recognised in this section (see Note 7), actuarial gains and losses on defined benefit pension plans, changes in fair value of cash flow hedges, changes in translation differences coming from subsidiaries whose accounts are denominated in foreign currencies and changes in the value of tangible or intangible assets (if the option has been exercised for fair value).

The Group presents other comprehensive income showing the components of other comprehensive income that may be subsequently reclassified to income separately from components not subsequently declassifiable.

14.6 Earnings per share

Basic earnings per share is calculated by dividing net income attributable to owners of the parent by the weighted average number of shares outstanding during the period (excluding shares intended for allocation under free share grants and treasury shares held for market-making purposes).

Diluted (net) earnings per share are calculated from the number of shares defined in the basic earnings increased by the weighted average number of potential shares to be issued and which would have a dilutive effect on net income.

Note 15 Provisions – Contingent assets and liabilities

15.1 Accounting principles

In accordance with IAS 37 "Provisions, Contingent Liabilities and Contingent Assets", provisions are recognised when the Group has a legal or constructive obligation towards a third party, when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and no inflow of resources of an equivalent amount is expected in return, and when the amount of the obligation can be reliably estimated.

Provisions for restructuring costs are recognised only when the restructuring has been announced and the Group has drawn up or has started to implement a detailed formal plan. Restructuring provisions notably cover the cost of severance payments.

Long-term provisions are discounted to present value when the impact of discounting is material and the date the underlying event is expected to materialise is known.

Material contingent liabilities are disclosed in Note 15.5, unless the probability of an outflow of resources embodying economic benefits is remote.

Material contingent assets are disclosed in Note 15.5 where an inflow of economic benefits is probable.

15.2 Movements in provisions

In millions of euros	Retirement benefits and other benefits	Guarantees given	Restructuring	Disputes	Other contingencies and losses	Total
DECEMBER 31, 2016	**112.2**	**4.8**	**0.6**	**9.6**	**24.6**	**151.8**
Additions	13.7	10.2	0.2	2.6	6.4	33.1
Reversals (utilisations)	(13.2)	(5.9)	(0.2)	(3.0)	(5.1)	(27.4)
Reversals (surplus)	(0.3)	(2.2)	(0.4)	(0.7)	(0.6)	(4.2)
Net additions (reversals)	0.2	2.1	(0.4)	(1.1)	0.7	1.5
Actuarial (gains) losses	(2.6)	0.0	0.0	0.0	0.0	(2.6)
Changes in Group structure	0.0	0.0	0.0	0.0	0.0	0.0
Other changes	0.0	0.0	0.0	0.0	(0.1)	(0.1)
Translation adjustments	(8.3)	(0.5)	0.0	(0.5)	(0.5)	(9.8)
DECEMBER 31, 2017	**101.5**	**6.4**	**0.2**	**8.0**	**24.7**	**140.8**
Additions	9.9	11.8	0.6	7.7	7.8	37.8
Reversals (utilisations)	(67.7)	(9.1)	(0.1)	(1.1)	(4.4)	(82.4)
Reversals (surplus)	(0.4)	(1.2)	0.0	(0.7)	(1.1)	(3.4)
Net additions (reversals)	(58.2)	1.5	0.5	5.9	2.3	(48.0)
Actuarial (gains) losses	(10.2)	0.0	0.0	0.0	0.0	(10.2)
Changes in Group structure	0.0	0.0	0.0	0.0	0.0	0.0
Other changes	7.4	0.0	0.0	0.0	1.0	8.4
Translation adjustments	0.9	0.1	0.0	0.1	(0.1)	1.0
DECEMBER 31, 2018	**41.4**	**8.0**	**0.7**	**14.0***	**27.9**	**92.0**

* *See Note 15.4.1.*

Provisions for product warranties are recognised based on an estimate of the costs relating to the contractual warranty for instruments sold over the remaining period under warranty (see Note 3.1.1).

Short-term provisions represent €45.0 million at December 31, 2018, versus €34.1 million at December 31, 2017.

Net reversals for the 2018 financial year affect the current operating income for €-48 million and mainly include the reversal related to the exceptional payment of $67 million, representing €56 million, to the fund for covering American post-employment benefit obligations.

15.3 Pension and other long-term benefit obligations

15.3.1 Accounting principles

15.3.1.1 Short-term employee benefits

Short-term employee benefits include wages, salaries and payroll taxes as well as paid vacation and performance-related bonuses. They are expensed during the period in which employees perform the corresponding services. Outstanding payments at the end of the reporting period are included in "Other operating payables".

15.3.1.2 Post-employment benefits

These benefits notably correspond to pensions, contractual retirement payments and post-employment health insurance. They are covered either by defined contribution plans or defined benefit plans.

Defined contribution plans: where required under local laws and practices, the Group pays salary-based contributions to pension and social security organisations. The Group's obligation is limited to the payment of contributions. The contributions are expensed during the financial year in which the employees perform the corresponding services. Outstanding payments at the end of the reporting period are included in "Other operating payables".

Defined benefit plans: These correspond to all plans other than defined contribution plans. They concern:

- regular or supplementary pension plans paid in the form of annuities (primarily in the US, France and Germany) and contractual retirement payments (primarily in France and Japan);
- health insurance for retired employees.

The Group's defined benefit pension obligation is estimated by actuaries, in accordance with the amended IAS 19, as presented hereafter:

Post-employment benefit obligations are calculated in accordance with the projected unit credit method. They take into consideration actuarial assumptions such as discount rates, the rate of future salary increases, employee turnover and mortality rates. The main assumptions used are set out below in Note 15.3.2.

For the purpose of determining the discount rate, the Group analysed various market rates and, as prescribed by the amended IAS 19R, chose an estimated average of the Iboxx Corporate AA and Bloomberg indices (euro, US dollar and pound sterling) at December 31, 2018, taking into account the average durations of the Group's plans where these differ from the observable maturities of the bonds used for those indices.

Post-employment benefit obligations are presented in the balance sheet for their total amount less the fair value of plan assets.

The impact on the service cost for the year and on the interest cost net of the return on plan assets is recognised in operating income before non-recurring items.

The impacts of changes in actuarial gains and losses related to benefit obligations and plan assets (actuarial assumptions and experience adjustments) are immediately recognised under other comprehensive income at their net-of-tax amount. They are not reclassified to income.

The impacts resulting from amendments to and settlements of pension plans are immediately recognised in income.

The expected return on plan assets recognised in income is calculated using the discount rate used to estimate the total benefit obligation.

Tests are performed to measure the sensitivity of the Group's post-employment benefit obligation to changes in certain actuarial assumptions (see Note 15.3.8).

IFRIC 14 "The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction" is not relevant to the Group.

15.3.1.3 Other long-term benefits

Other long-term benefits include long-service awards and jubilee bonuses. The corresponding liabilities are recognised on an actuarial basis whenever they have a material impact. Actuarial gains and losses and past service cost are recognised immediately in income.

15.3.2 Assumptions used

Pension and other benefit obligations are covered by provisions and essentially concern the US and France. These obligations are calculated using actuarial methods based on a certain number of assumptions.

The main assumptions used are as follows:

	France		US	
	Dec 31, 2018	Dec 31, 2017	**Dec 31, 2018**	Dec 31, 2017
Expected salary increase rate	2.00%	2.00%	3.00%	3.00%
Discount rate	2.00%	1.75%	4.50%	3.80%
Average duration of plans	12.0	14.0	14.4	16.4

The expected return on plan assets corresponds to the discount rate applied to the Group's pension obligations, in accordance with the amended IAS 19.

15.3.3 Breakdown of provisions for employee benefits

In millions of euros	**Dec 31, 2018**	Dec 31, 2017
Post-employment benefits	28.3	86.6
Long-service awards	13.1	14.8
TOTAL PROVISIONS FOR LONG-TERM EMPLOYEE BENEFITS	**41.4**	**101.5**

15.3.4 Change in provisions for post-employment benefits

In millions of euros	Present value of obligation	Fair value of plan assets*	Provisions for pensions	Post employment health insurance	Total provisions for post-employment benefits
DECEMBER 31, 2017	**234.0**	**(150.0)**	**84.0**	**2.6**	**86.6**
Current service cost	6.5		6.5	0.0	6.5
Interest cost	7.6	(5.9)	1.8	0.1	1.9
Retirements	(10.8)	9.3	(1.5)	(0.1)	(1.6)
Contributions	0.0	(56.7)	(56.7)		(56.7)
Impact on operating income	**3.4**	**(53.3)**	**(49.9)**	**0.0**	**(49.9)**
Actuarial gains and losses (Other comprehensive inco	**(18.2)**	**9.2**	**(9.0)**	**(1.2)**	**(10.2)**
Other movements (incl. impact of exchange rates)	8.1	(6.4)	1.7	0.1	1.8
DECEMBER 31, 2018	**227.3**	**(200.5)**	**26.7**	**1.6**	**28.3**

* *Plan assets or scheduled payments.*

In millions of euros	Present value of obligation	Fair value of plan assets*	Provisions for pensions	Post employment health insurance	Total provisions for post-employment benefits
DECEMBER 31, 2016	**243.5**	**(148.1)**	**95.4**	**3.0**	**98.4**
Current service cost	7.1		7.1	0.0	7.1
Interest cost	8.2	(5.0)	3.2	0.1	3.4
Retirements	(9.3)	8.1	(1.2)	(0.1)	(1.4)
Change in plan	0.0		0.0		0.0
Contributions	0.0	(9.0)	(9.0)		(9.0)
Impact on operating income	**6.0**	**(5.9)**	**0.1**	**0.0**	**0.1**
Actuarial gains and losses (Other comprehensive inco	**8.8**	**(11.4)**	**(2.6)**	**0.0**	**(2.6)**
Other movements (incl. impact of exchange rates)	(24.3)	15.5	(8.8)	(0.4)	(9.1)
DECEMBER 31, 2017	**234.0**	**(150.0)**	**84.0**	**2.6**	**86.6**

* *Plan assets or scheduled payments.*

During the 2018 financial year, bioMérieux Inc. made an exceptional payment of $67 million, representing €56 million, to the fund for covering American post-employment benefit obligations (see Note 1.2.1). The net post-employment benefit commitment in the United States now represents €5.0 million compared to €56.2 million at December 31, 2017.

15.3.5 Net post-employment benefit expense for the year

In millions of euros	Dec 31, 2018	Dec 31, 2017
Current service cost	6.5	7.1
Return on plan assets	(5.9)	(5.0)
Interest cost	7.6	8.2
TOTAL	**8.3**	**10.3**

15.3.6 Breakdown of net obligation by country

	Dec 31, 2018			
In millions of euros	US	France	Other countries	TOTAL
Present value of obligation	168.4	31.6	27.4	227.4
Fair value of funds*	(164.9)	(24.7)	(11.1)	(200.7)
Provisions for pensions	**3.5**	**6.8**	**16.4**	**26.7**
Post-employment health insurance	1.5	0.0		1.6
TOTAL POST-EMPLOYMENT BENEFITS	**5.1**	**6.9**	**16.4**	**28.3**
Long-service awards		13.4		13.4
TOTAL PROVISIONS FOR PENSIONS AND OTHER LONG-TERM BENEFITS	**5.1**	**20.3**	**16.4**	**41.7**

* *Plan assets and sched uled payments.*

15.3.7 Information on plan assets

15.3.7.1 Allocation of funds

	Dec 31, 2018		Dec 31, 2017	
In millions of euros	France	US	France	US
Equities	1.5	16.6	1.3	42.4
Bonds	21.3	148.3	16.3	68.9
Other	2.0		1.5	1.1
TOTAL	**24.7**	**164.9**	**19.2**	**112.5***

* *Excluding scheduled payments.*

15.3.7.2 Actual return on plan assets

	Return 2018	Return 2017
France	2.2%	2.8%
US	-2.4%	12.9%

The yield of the US funds became negative due to a change in the investment strategy of bioMérieux Inc. following the exceptional contribution of $67 million at mid-year. The Company invested in long-maturity Corporate bonds of the highest rating. Since then, interest rates increased and the valuation of the bonds dropped.

In France, the drop in profitability of the fund over the 2018 financial year is mainly related to an additional contribution of €5 million made in December 2018. Given the payment date, this additional contribution did not generate interest over the 2018 financial year.

15.3.8 Other Information

The timing of future benefit payments at December 31, 2018 is as follows:

In %	Future payments of services (in % of net commitment)
< 1 year	6%
1-5 years	31%
At more than 5 years	63%

A portion of these payments will be funded by the plan assets. Contributions will be decided on a yearly basis.

A 0.5 point increase in the discount rate would have a favourable impact of around 6.8% on the amount of commitments (namely €15.4 million).

15.4 Other provisions

15.4.1 Provisions for claims and litigation

The Group is involved in a certain number of claims arising in the ordinary course of business, the most significant of which are described below. Based on available information, the Group considers that these claims will not have a materially adverse impact on its ability to continue as a going concern. When a risk is identified, a provision is recognised as soon as it can be reliably estimated. The provision for claims and litigation covers all disputes in which the Group is involved and amounted to €14.0 million at December 31, 2018 and €8.0 million at December 31, 2017.

Other than the tax litigation explained below, the litigation mainly included disputes with distributors following the termination of their distribution contracts. A provision has been set aside for the probable amounts that the Group will have to pay based on the plaintiff's claims.

15.4.2 Provisions for tax disputes

Tax audit in Sweden

The tax litigation between the Swedish Company AB bioMérieux Sweden and the Swedish tax administration was closed in November 2018. On September 24, 2018, the administrative Court of Appeal ruled in favour of AB bioMérieux Sweden for the financial years 2013 to 2015. This decision is no longer subject to appeal by the Swedish tax authorities, who have already repaid the amounts wrongly paid by AB bioMérieux (€2.8 million). The adjustment pursuant to the 2016 financial year remains suspended, as it was not part of the procedure. Consequently, a claim in this regard for an amount of about €0.8 million should be sent to the administration during 2019.

Tax audits in Italy

Further to two tax audits in Italy in respect of reporting periods 2004 to 2007 and 2009 to 2010, bioMérieux Italy has received tax deficiency notices relating to transfer prices and the portion of shared costs allocated to this subsidiary.

The total amount is €43 million, breaking down as €23 million in income tax, €15 million in penalties and €5 million in accrued interest.

In the context of this dispute, the Group has requested a mutual agreement procedure to be initiated between the relevant French and Italian authorities based on the European Arbitration Convention of July 23, 1990, as amended by the protocol of May 25, 1999. The aim of these proceedings is to prevent the double taxation of companies by different Member States owing to an upward adjustment of profits of one of the companies in a Member State (as regards transfer pricing). The neutralisation does not apply to penalties or late-payment interest.

During the 2016 financial year, the competent French and Italian authorities reached an amicable agreement for the period 2004 to 2007. This agreement, which was accepted by the Group, eliminates the tax adjustment for 2004 and limits the basis for subsequent adjustments. The corresponding late-payment interest and penalties will be subject to a claim under local Italian law.

The adjustments made for the financial years 2009 and 2010 are in the process of examination by the competent authorities under a similar negotiated procedure.

In parallel, adjustments made to the sales flows between Italy and the Group's American subsidiary continued to be subject to a local Italian law dispute. After an unfavourable ruling in first instance, the Group intends to pursue all available remedies to defend its position. The duration of this procedure cannot be estimated at this stage.

At December 31, 2018, a provision corresponding to its best estimate of the consequences of ongoing proceedings is booked to the Group's financial statements.

Claims in France: contribution on distributed income (3% contribution)

Following the censure by the French constitutional council of the 3% contribution on distributed income, bioMérieux SA has filed claims to obtain the reimbursement of this contribution for the financial years between 2013 and 2017. During 2018, the French tax authorities accepted all claims from bioMérieux. bioMérieux obtained repayment of the amounts paid (€5.9 million) pursuant to this contribution and the corresponding interest on arrears (€0.7 million).

15.4.3 Other provisions for contingencies and losses

Manovra Sanità

This bill, which was passed in Italy in August 2015, requires healthcare providers to cover 40% of the difference between the health budget of each province and the actual expenditure incurred. No implementing decree has yet been adopted. Nevertheless, in accordance with market practice, the provision for risk already recorded in 2016 was updated at December 31, 2018.

Other provisions for risks

These concerns the costs related to the discontinuation of certain product ranges.

15.5 Contingent assets and liabilities

Diagnostic tests for Lyme disease

bioMérieux, like other laboratories, was summoned before the Tribunal de Grande Instance de Paris by more than 90 patients to obtain compensations linked to anxiety allegedly "generated by a lack of reliability of serodiagnostic tests" for Lyme disease.

At this stage of the proceedings, it is impossible to reliably estimate the risk facing the Group.

Note 16 Net debt – Cash

16.1 Consolidated cash flow statement

The consolidated cash flow statement is presented according to the recommendation of the French accounting standards authority No. 2013-03 dated November 7, 2013.

It lists separately:

- cash flows from operating activities;
- cash flows from investing activities;
- cash flows from financing activities.

Cash flows from investing activities include the amount of net cash of companies acquired or sold on the date of their first-time consolidation or their derecognition, as well as amounts due to suppliers of non-current assets and amounts receivable on disposals of non-current assets.

Net cash and cash equivalents correspond to the Group's net debit and credit cash positions.

The consolidated statement of cash flows shows the Group's EBITDA. EBITDA is not defined under IFRS and may be calculated differently by different companies. EBITDA as presented by bioMérieux is equal to the sum of operating income before non-recurring items and net additions to operating depreciation and amortisation.

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Additive method		
• Net income	255.5	237.5
• Non-recurring income and expenditure and acquisition fees and depreciation costs for the acquisition of Biofire	17.4	19.9
• Cost of net financial debt	18.5	16.2
• Other financial income and expenses, net	4.5	6.2
• Income tax expense	65.2	54.5
• Net income for the period - Investments in associates	(0.2)	0.4
• Net additions to operational depreciation	157.9	140.5
EBITDA	**518.8**	**475.2**
Simplified additive method		
• Contributive operating income before non-recurring items	360.9	334.7
• Net additions to operational depreciation	157.9	140.5
EBITDA	**518.8**	**475.2**

The presentation of the consolidated cash flow statement has changed in order to better reflect the Group's cash generation. The table below shows the comparison with the version published in the 2017 annual financial statements.

In millions of euros	Dec. 31, 2017 published	Dec. 31, 2017 restated
EBITDA (before non-recurring items)	475.2	475.2
Elimination of other non-cash/non-operating income and expenses	8.1	8.1
Change in working capital requirement	(34.3)	(34.3)
Income tax paid	(91.5)	(91.5)
Cost of net financial debt	0.0	(16.2)
NET CASH FROM OPERATING ACTIVITIES	**357.5**	**341.3**
Purchases of property, plant and equipment and intangible assets	(183.5)	(183.5)
Proceeds from disposals of property, plant and equipment and intangible assets	7.9	7.9
Purchases/proceeds from acquisitions of non-current financial assets	(14.1)	0.0
Proceeds from other non-current financial assets	0.0	(0.4)
Free cash flow	Not presented	165.3
Disbursement / collection related to taking non-controlling interests	0.0	(13.7)
Impact of changes in Group structure	9.3	9.3
NET CASH USED IN INVESTING ACTIVITIES	**(180.4)**	**(180.4)**
Purchases and sales of treasury shares	(0.9)	(0.9)
Dividends paid to owners	(39.4)	(39.4)
Dividends paid to non-controlling interests	(0.1)	(0.1)
Cost of net financial debt	(16.2)	0.0
Change in committed debt	(0.6)	(0.6)
Change in interests without gain or loss of controlling interest	(11.5)	(11.5)
NET CASH USED IN FINANCING ACTIVITIES	**(68.7)**	**(52.5)**
NET CHANGE IN CASH AND CASH EQUIVALENTS	**108.4**	**108.4**

An in-depth analysis of the nature of the commitments to bonuses deliverable in cash indexed on the price of the bioMérieux share led to the reclassification of debts established on December 31, 2017 from the category "Borrowings" to the category "Other operating payables". Consequently, changes to the value of commitments are presented in the consolidated cash flow statement within the flows related to the activity from the 2018 financial year. Previously, they were presented as changes to financing flows.

Also, in order to facilitate reading the consolidated cash flow statement, the cost of net debt was reclassified from flows related to financing transactions to flows related to the activity.

The available free cash flow is a key indicator for the Group. It is defined as the cash flow coming from operation plus cash flows coming from investment excluding net cash coming from acquisitions and disposals of subsidiaries.

16.2 Changes in net debt

No borrowings are recognised or re-estimated at fair value, with the exception of debts related to price supplements, recognised and re-valued at each closure at their fair value as defined contractually (see Note 27).

No debt restructuring occurred over the presented financial years. Likewise, current debts on December 31, 2017 not restructured in the past.

At December 31, 2018, after the €40.2 million dividend pay-out to bioMérieux SA shareholders, the Group's net debt stood at €266.9 million and mainly comprised the October 2013 bond issue.

At that date, the Group issued €300 million worth of seven-year bonds to institutional investors, redeemable at par at maturity. The bonds pay interest at an annual rate of 2.875%.

The bond issue is shown on the balance sheet at amortised cost calculated using the effective interest rate method for an amount of €299.1 million, reflecting the issue price net of issue fees and premiums. Interest costs were calculated by applying the effective interest rate including issue fees and premiums.

bioMérieux SA also benefits, on December 31, 2018, from a non-drawn syndicated credit facility of €500 million, which was amended in 2018 bringing its maturity to January 2024 (5 years with the option for extension twice for one year, one of which remains to be exercised).

Furthermore, in order to meet the general financing needs of bioMérieux SA and its subsidiaries, the Company can use a program for the issuance of short-term marketable securities. The main characteristics of the program are as follows:

Maximum ceiling of the program	€500,000,000.00
Duration	< 1 year
Minimum amount per issue	€150,000 or the equivalent value of this amount incurrencies determined at the time of the issue
Issue currency	Euros or any other currency authorised by the French regulations applicable at the time of the issue
Domiciliary agent	CACEIS Corporate Trust
Arranger	Credit Agricole Corporate and Investment Bank
Dealers	Aurel BGC BNP Paribas BRED Banque Populaire Credit Agricole Corporate and Investment Bank Crédit Mutuel – CIC Natixis Société Générale ING Belgium Succursale France

The information memorandum pertaining to the short-term marketable securities issuance program can be consulted on the Bank of France website (www.banque-france.fr/en).

16.3 Maturities of borrowings

The maturities schedule indicates the net liabilities or net cash and cash equivalents. This non- standardised schedule corresponds to the sum of cash and cash equivalents with a maturity of less than three months, less committed debt and bank overdrafts and other uncommitted borrowings.

The maturity schedule below refers to balance sheet amounts.

In millions of euros	Dec. 31, 2017	Change	Changes in Group structure	Change in statement of Cash flows	Other movements	Translation adjustments	Dec. 31, 2018
Cash at bank and in hand	214.4	14.2	3.4	17.6		(0.3)	231.7
Short-term investments	97.7	(49.2)	0.0	(49.2)		(0.1)	48.4[a]
Cash and cash equivalents	**312.1**	**(35.0)**	**3.4**	**(31.6)**	**0.0**	**(0.4)**	**280.1**
Bank overdrafts and other uncommitted debt	(51.7)	53.0	0.0	53.0		(11.4)	(10.1)[b]
NET CASH AND CASH EQUIVALENTS (A)	**260.4**	**18.0**	**3.4**	**21.4**	**0.0**	**(11.8)**	**270.0**
COMMITTED DEBT (B)	**416.3**	**115.5**	**0.0**	**115.5**	**5.8**	**(0.6)**	**536.9**
o/w due beyond 5 years	*23.2*						*24.3*
o/w due in 1 to 5 years	*367.9*						*422.5*
o/w due within 1 year	*25.2*						*90.1*
NET DEBT (B) -(A)	**155.9**	**97.5**	**(3.4)**	**94.1**	**5.8**	**11.1**	**266.9**

(a) See Note 12.2.
(b) cash and bank overdrafts comply with the principles of the standard IAS 7, meaning that they are repayable on demand.

New borrowings stand at €91 million. They were subscribed by bioMérieux Shanghai when acquiring Hybiome.

At December 31, 2018, the share of borrowings due beyond five years mainly comprises the share due beyond five years of the debt relating to finance leases for €18.6 million in France.

The borrowings between one and five years include the bond loan contracted to acquire the American company BioFire for €299.1 million, the loan contracted by Shanghai to acquire Hybiome for €52.1 million, the put on Hybiome minority interests for €39.2 million and the debt relating to finance lease contracts for €15.3 million, mainly in France.

The borrowings due within one year mainly include short-term marketable securities for €35 million, the share due within one year of the debt relating to finance leasing contracts for €3.8 million, mainly in France, as well as the accrued interest on the bond issue for €2.3 million.

The other movements of €5.8 million include:

- the classification as liabilities to personnel of the provision for variable compensation indexed on the price of the share (phantom shares) for €33.4 million, even though they were previously recorded in borrowings in the part between one and five years;
- the debt relative to the put option on Hybiome minority interests for an updated value of €39.2 million (see Note 5.1).

At the end of the financial year, the Group had not breached any of its repayment schedules.

No loan agreement was signed prior to December 31, 2018 concerning loans to be set up in 2019.

16.4 Debt covenants

In the event of a change of control of the Company as defined in the issue notice, bondholders may ask for their bonds to be redeemed.

The syndicated credit facility is subject to a single covenant: "net debt to operating income before non-recurring items before depreciation/amortisation and acquisition expenses" may not exceed 3.5. The Group complied with this ratio at December 31, 2018.

The loan subscribed in China is subject to a ratio for "net debt / current operating income before amortisation and provisions for acquisition-related costs" that must not exceed 7.5 until December 31, 2020, then 4.5 from January 1, 2021. The ratio of 7.5 is complied with at the end of 2018.

The other term borrowings at December 31, 2018 primarily correspond to commercial paper, share allocation plans delivered under cash and cash equivalents and finance lease liabilities related to assets in France and Italy. None of these borrowings is subject to financial ratios.

16.5 Interest rates

Before hedging, 56% of the Group's borrowings are at fixed rates (€299.1 million) and the remainder is at floating rates (€235 million).

Fixed-rate borrowings comprise the €299.1 million bond issue maturing in 2020 and paying a coupon of 2.875%. An interest rate swap was taken out converting the interest on half of the bond issue into a floating rate from the beginning, capped at 1.20% and with a floor of 0.30%. In April 2017, a new swap contract was taken out to cancel the floating rate as from July 18, 2018 with the possibility of a probable increase in interest rates.

Floating-rate borrowings are essentially based on the currency's interest rate plus a margin.

16.6 Finance leases

16.6.1 Principal amount of the borrowings

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Due within 1 year	3.8	4.0
Due in 1 to 5 years	15.3	15.3
Due beyond 5 years	18.6	22.4
TOTAL	**37.7**	**41.7**

16.6.2 Future lease payments (principal and interest)

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
MINIMUM FUTURE PAYMENTS	**39.1**	**43.4**
Due within 1 year	4.0	4.3
Due in 1 to 5 years	16.2	16.2
Due beyond 5 years	19.0	22.9
Less interest	(1.4)	(1.6)
PRESENT VALUE OF FUTURE LEASE PAYMENTS	**37.7**	**41.7**

16.7 Breakdown of net debt (net cash) by currency

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Euro	271.5	(92.9)
Chinese yuan	74.3	(34.9)
Brazilian real	3.9	(1.3)
Japanese yen	3.4	3.5
Russian rouble	(0.6)	(0.6)
Czech koruna	(1.1)	1.1
Mexican peso	(1.2)	(1.2)
South African rand	(1.8)	(2.4)
Swiss franc	(2.0)	(2.2)
Polish zloty	(2.7)	(3.3)
Swedish krona	(3.8)	(1.6)
Canadian dollar	(4.0)	(1.6)
Hong Kong dollars	(10.1)	(8.8)
Pound sterling	(13.2)	(3.3)
Australian dollars	(13.4)	(3.5)
US dollars[(a)]	(30.4)	315.3
Other currencies	(2.0)	(6.6)
TOTAL	**266.9**	**155.9**

16.8 Loan guarantees

None of the Group's assets have been pledged as collateral to a bank.

bioMérieux SA may be required to issue a guarantee to banks granting facilities to subsidiaries with recourse to external funding.

Hedging agreements are discussed in Note 27.

Note 17 Trade and other payables

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Trade payables	**176.9**	**161.3**
Advances and downpayments	5.7	6.5
Tax debts and liabilities to personnel*	259.6	219.3
Deferred income	54.7	53.3
Other	25.3	21.7
Other operating payables	**345.1**	**300.7**
Current tax payables	**33.5**	**24.2**
Due to suppliers of non-current assets	25.0	23.7
Other	30.8	30.9
NON-OPERATING PAYABLES	**55.8**	**54.6**

* *Tax debts and liabilities to personnel now include the bonus plan indexed on the share price for €27 million. In 2017, €33.4 million was recognised as borrowing.*

The details of the other liabilities related to customer contracts are presented in Note 10.

Operating and non-operating payables generally fall due within one year, except for certain deferred income. Other non-operating payables relate mainly to the fair value of derivative instruments carried in liabilities (€27 million at end-2018 versus €27.1 million at end 2017, see Note 27.2).

Note 18 Share-based payments

18.1 Share-based payment and share grant plans

The transactions paid in shares concern the bioMérieux SA share grant plans approved by the Annual General Meetings of May 30, 2012; May 29, 2013; May 28, 2014; May 28, 2015; May 26, 2016; May 30, 2017 and May 17, 2018.

A summary of these plans is presented below.

In accordance with IFRS 2 "Share-based Payment", the fair value of the benefits granted is expensed over the vesting period, with a corresponding increase in equity. The expense is based on the value of the underlying shares or options at the grant date, *i.e.* the date on which the list of beneficiaries was approved by the Board of Directors. The probability that the rights will vest is reviewed at the end of each reporting period and until the vesting date, to take into account whether the continuous employment and performance conditions have been met. Any changes are taken to income. At the end of the vesting period, the amount of the cumulative expense is adjusted on the amount effectively vested and held in a specific reserve account. This account is liquidated if the rights are exercised or lapse.

When the share-based payment plan is settled in cash and cash equivalents, the fair value of the plan is updated at each balance sheet date during the vesting period. The counterparty of the expense recognised during the vesting period is recorded as a debt.

In accordance with IFRS 2 "Share-based Payment", the corresponding tax saving recognised in the parent company financial statements is allocated in the consolidated financial statements to the year during which the share-based payment expense is recognised.

18.2 Share grant plans

	Year in which plan opened				
	2014	2015	2016	2017	2018
Number of shares	15,000	53,100	402,300	40,116	169,685
Forfeited shares	0	4,500	25,200	502	0
Shares presented in 2018	15,000	0	0	0	0
Vesting of shares	0	0	0	0	0
Number of shares to be remitted as of Dec. 31, 2018	0	48,600	377,100	39,614	169,685

The number of shares for plans prior to 2017 were tripled after the three-for-one split decided by the Combined General Meeting of June 2017.

Between 2012 and 2018, the Board of Directors granted free shares (out of existing shares) to certain employees and corporate officers.

These plans specify that shares will only be definitively assigned after a vesting period of between three and four years. The conditions for the acquisition of rights are related to presence conditions, and, for certain plans, the definitive acquisition of performance shares is subject to achieving objectives based on revenue and operating income or the achievement of specific objectives. The performance shares are no longer subject to a lock-up period if the vesting period is at least two years. The lock-up period may be waived for shares granted to non-French tax residents provided that the shares concerned are subject to a four-year vesting period.

In 2018, a net expense of €6.6 million was recognised in personnel costs due to compensation in shares, including the expenses related to employers' contributions (against a net expense of €9.9 million in 2017).

On December 31, 2018:

- for 619,849 free shares, the Company considered that the performance criteria were achieved;
- for 15,150 free shares, the Company considered that the performance criteria were not achieved.

At December 31, 2018, bioMérieux SA held 542 of its own shares for allocation under the above-described share grant plans. The Company would have to purchase a maximum of 92,712 additional shares at a cost of €5.3 million based on the share price at December 31, 2018.

The fair value of shares corresponds to the market price on the date of assignment of the plans.

18.3 Share-based payments delivered under cash and cash equivalents

In 2015, 2016 and 2017, the Group set up variable compensation plans in the United States indexed on the price of the bioMérieux share (phantom shares). This additional paid-in capital is comparable to allocation plans for free shares delivered under cash and cash equivalents. Due to the drop in the share price, the impact on the financial statements of the Group of these plans is income of €7.2 million in the 2018 financial year, against an expense of €28.9 million in 2017. The debt relative to these plans on December 31, 2018 stood at €27.0 million, against €33.4 million on December 31, 2017.

18.4 Stock option plans

There is no stock option plan within the Group.

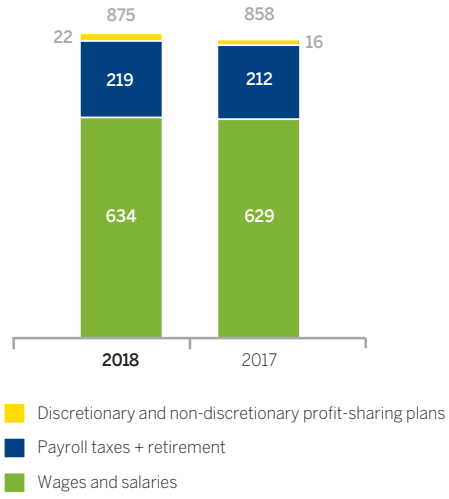
Note 19 Other operating income and expenses

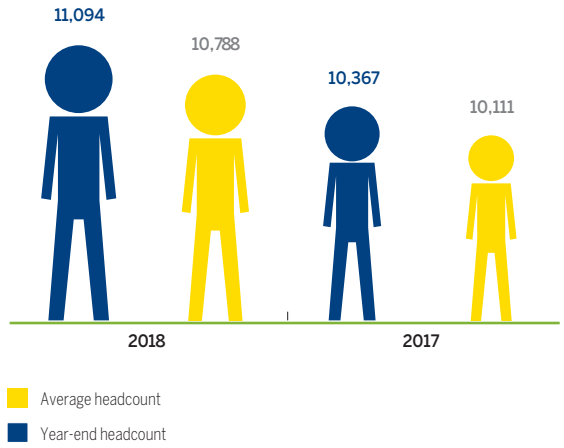
In millions of euros	2018	2017
Net royalties received	4.0	4.5
Research tax credits	24.0	21.9
Research grants	1.4	2.0
Compensation received		1.3
Other	1.8	1.6
TOTAL	**31.2**	**31.2**

The other income related to customer contracts mainly corresponds to licence fees received.

In accordance with IAS 20, bioMérieux presents research tax credits as a subsidy within other operating income.

Note 20 Personnel costs





Wages and salaries take into account the share in the fair value of share-based payment (see Note 18).

Payroll taxes include amounts paid into defined contribution plans for €4.3 million.

CICE tax credits introduced in France to promote competitiveness and employment are recognised as a deduction from payroll taxes (see Note 3.2).

Employee profit-sharing plans (discretionary and non-discretionary) only concern bioMérieux SA.

Note 21 Depreciation, amortisation and provisions, net

	Dec. 31, 2018	Dec. 31, 2017
Depreciation and amortisation of non-current assets	175.4	158.8
Impairment	(48.2)	5.5
Impairment of current assets	2.7	(0.8)
Impairment of non-current financial assets	(0.5)	(0.7)
TOTAL	**129.4**	**162.8**

Depreciation and amortisation expense includes €157.9 million shown within contributive operating income before non-recurring items and €17.5 million relating to the amortisation of the fair value of assets recognised in relation to the acquisition of BioFire.

The net reversals of provisions on December 31, 2018 mainly relate to the American post-employment benefit obligations and follow on from an exceptional payment of $67.1 million, representing €58.7 million, to the fund for covering commitments (see Note 1.2.1).

Note 22 Net finance costs

22.1 Accounting principles

Financial income and expenses are shown on two separate lines:

- **"cost of net debt"** which includes interest expense, fees and foreign exchange gains and losses arising on borrowings, as well as income generated by cash and cash equivalents;
- **"other financial income and expenses, net"** which includes interest income on instruments sold under finance lease arrangements, the impact of disposals and writedowns of investments in non-consolidated companies, late-payment interest charged to customers, discounting gains and losses, and the ineffective portion of currency hedges on commercial transactions.

22.2 Cost of net financial debt

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Finance costs	(16.9)	(16.1)
Interest rate hedging derivatives	(2.7)	(0.1)
Foreign exchange gains (losses)	1.1	0.0
TOTAL	**(18.5)**	**(16.2)**

The cost of borrowing mainly includes interest on the bond loan and interest on repayable advances in the mechanisms for funding research (ADNA)

22.3 Other financial income and expenses, net

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Interest income on leased assets	1.2	1.2
Depreciation and transfer of financial assets at amortised cost	0.0	(0.2)
Result of disposing of non-consolidated equity investments	0.0	0.0
Currency hedging derivatives	(6.6)	(8.1)
Other	1.0	0.8
TOTAL	**(4.5)**	**(6.2)**

The currency hedging derivatives mainly correspond to the ineffective part on commercial transactions.

22.4 Foreign exchange gains (losses)

Foreign exchange gains and losses result from differences between the transaction exchange rate and the settlement rate (or the year-end rate if the payment has not yet been made). These differences only partially reflect the impact of currency fluctuations.

The transaction exchange rate is the rate prevailing on the date the transaction takes place. The settlement exchange rate is either the rate in effect on the date of payment or the hedging rate (excluding time value) if a currency hedge was set up for the transaction.

Foreign exchange gains and losses on commercial transactions are recognised under the relevant headings in the consolidated income statement. The foreign exchange gains and losses impacted the consolidated income statement in the following manner:

In millions of euros	Jan 2018 Dec 2018	Jan 2017 Dec 2017
Sales	0.4	(0.8)
Purchases	(8.8)	3.1
Financial items	1.1	0.0
TOTAL	**(7.3)**	**2.3**

Note 23 BioFire acquisition fees and depreciation costs

In order to improve the understanding of operating income and due to the transaction's scale, fees relating to the acquisition of BioFire Diagnostics and BioFire Defense – consolidated for the first time at June 30, 2014 – are shown on a separate line of operating income before non-recurring items.

This line comprises the amortisations of the assets acquired and valued during the purchase price allocation (technologies) for €17.5 million at the end of December 2018.

At the end of 2017, the amount of impairment of acquired assets stood at €18.2 million.

Note 24 Other non-recurring income and expenses from operations

24.1 Accounting principles

Other non-recurring income and expenses from operations, net are items that are material, unusual and non-recurring. They are presented on a separate line of the income statement in order to give a clearer picture of the Group's routine business performance. They chiefly include material amounts of net proceeds from disposals of non-current assets (other than instruments), restructuring costs and impairment losses (see Note 5).

Restructuring costs (which include the cost of severance payments) correspond to the expenses recognised when the Group officially announces the closure of a facility or a scaling down of operations in the ordinary course of business, as well as subsequent adjustments made to reflect the actual costs incurred.

24.2 Changes

Other non-recurring income and expenses from operations represented income of €0.2 million, to be compared with an expense of €1.6 million in 2017.

There are no amounts that are individually material in the other non-recurring income and expenses from operations.

Note 25 Current and deferred income tax

25.1 Accounting principles

The income tax expense for the period comprises current and deferred tax.

Tax credits (excluding research tax credits and CICE tax credits for competitiveness and employment, see Note 3.2, are presented as a deduction from income tax expense.

Deferred taxes are recognised using the liability method for all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. These differences arise in particular from:

- timing differences between the recognition of certain income and expense items for financial reporting and tax purposes (*e.g.*, non-deductible provisions, employee profit-sharing, etc.);
- consolidation adjustments (*e.g.*, accelerated depreciation, provisions, elimination of internal gains included in inventories and non-current assets, etc.);
- forecast withholding tax on dividend payments planned for the following year;
- calculation of the fair value of assets and liabilities relating to companies acquired.

Changes in deferred tax are recognised in profit/loss or in other comprehensive income, according to the recognition of the underlying restatement.

The deferred taxes are calculated using the liability method based on the probable dates of payment. They are recognised at the enacted tax rate (or nearly enacted rate) for their nominal value without discounting.

Deferred tax assets arising on temporary differences are only recognised if they can be utilised against future deductible temporary differences, or where there is a reasonable probability of their utilisation or recovery against future taxable income. In practice, and notably in the case of tax loss carryforwards, this rule is applied based on budget forecasts approved by management using a maximum time horizon of two years. The calculation of deferred taxes takes account of new tax provisions applicable for tax loss carryforwards (utilisation ceilings, etc.).

25.2 Analysis of income tax expense

	2018		2017	
In millions of euros	Tax	Rate	Tax	Rate
Theoretical tax at standard French tax rate	**110.3**	**34.4%**	**100.7**	**34.4%**
• Impact of income tax at reduced tax rates and foreign tax rates	(34.5)	(10.8)%	(12.7)	(4.3)%
• Impact of the US tax reform			(30.2)	(10.3)%
• Impact of permanent differences	(2.4)	(0.7)%	6.0	2.1%
• Impact of tax on the payment of dividends	0.7	0.2%	0.6	0.2%
• Deferred tax assets not recognised on tax losses carried forward	2.0	0.6%	0.8	0.3%
• Impact of research and CICE tax credits presented in operating income	(9.0)	(2.8)%	(9.1)	(3.1)%
• Tax credits (other than research tax credits)	(1.9)	(0.6)%	(1.6)	(0.6)%
ACTUAL INCOME TAX EXPENSE	**65.2**	**20.3%**	**54.5**	**18.6%**

The basic Corporate income tax rate in France is 33.33%. Act No. 99-1140 of December 29, 1999 on social security funding introduced a surtax that raised the statutory rate by 1.1%.

The Group's effective tax rate at December 31, 2018 stood at 20.3%, compared with 18.6% at end 2017. The Group's effective tax rate benefits, on the current income tax expense, from the new tax policy in the United States, leading to a reduction of 21% in the federal tax rate on company profits, against 35% previously, since January 1, 2018. The effective tax rate also benefited, in 2018, from the tax impact of the exceptional contribution to pension funds made in the United States (see Note 1.2.1). Lastly, the Group also recorded a tax income following the favourable resolution of a tax dispute in Sweden (see Note 15.4.2).

Aside from these non-recurring effects, the Group's recurring effective tax rate was approximately 23%, down compared to the previous financial year (28%).

The French deferred tax was adjusted to 32.02% for transfers from January 1, 2019, to take into account the provisions in the 2019 Finance law.

25.3 Change in deferred tax

In millions of euros	Deferred tax assets	Deferred tax shareholders' equity and liabilities
DECEMBER 31, 2016	**92.8**	**167.3**
Translation adjustments	(7.4)	(12.4)
Changes in Group structure	0.0	0.0
Movements recognised in income	(22.6)	(50.9)
Other comprehensive income (expense)	(10.9)	
Other movements	(0.2)	(0.2)
DECEMBER 31, 2017	**51.6**	**103.8**
Translation adjustments	1.8	3.8
Changes in Group structure	16.2	22.8
Movements recognised in income	7.8	4.5
Other comprehensive income (expense)	(0.8)	1.5
Other movements	(2.4)	(0.4)
DECEMBER 31, 2018	**74.3**	**136.0**

Deferred tax assets are mainly generated in the US and result from:

- the activation of losses carried forward and tax benefits recognised for the BioFire purchase price allocation. On December 31, 2018, these activated losses carried forward stood at €0.1 million, compared to €0.9 million on December 31, 2017;
- temporary differences due in particular to the non-deductibility of certain provisions and the elimination of internal margins on inventories;
- deferred taxes on other comprehensive income items correspond to fair value adjustments to financial instruments (€0.3 million in 2018) and deferred taxes on actuarial differences relating to pension obligations (€-2.6 million in 2018).

In 2018, new deferred tax assets were recognised in relation to losses carried forward and tax credits following the acquisition of Astute Medical Inc. for €16.2 million.

At December 31, 2018, deductible timing differences derived from tax losses that have not been recognised as deferred tax assets amounted to €19.2 million (including €17.6 million in respect of unrecognised tax loss carryforwards), representing a potential tax saving of €6.0 million (including €5.5 million in respect of unrecognised tax loss carryforwards).

At December 31, 2017, deductible timing differences derived from tax losses that have not been recognised as deferred tax assets amounted to €9.0 million (including €7.8 million in respect of unrecognised tax loss carryforwards), representing a potential tax saving of €2.9 million (including €2.4 million in respect of unrecognised tax loss carryforwards).

Deferred tax liabilities are primarily from BioFire (€58.5 million), bioMérieux SA (€25.6 million), and Hyglos (€6.7 million), mainly corresponding to the accounting of fixed assets at fair value. Two new deferred tax liabilities were recognised on the latest acquisitions of the Group (€14.0 million relative to Hybiome and €8.3 million relative to Astute Medical Inc.).

Note 26 Fees of Statutory Auditors

In thousands of euros	Dec. 31, 2018 Ernst &Young		Grant Thornton		Other		Total	Dec. 31, 2017 Ernst &Young		Grant Thornton		Other		Total
Statutory audit	**1,064**	***91%***	**586**	***97%***	**36**	***100%***	**1,685**	**1,143**	***91%***	**493**	***100%***	**10**	***100%***	**1,647**
• bioMérieux SA	158	*13%*	153	*25%*		*0%*	311	169	*14%*	153	*31%*		*0%*	322
• fully consolidated subsidiaries	906	*78%*	433	*72%*	36	*100%*	1374	974	*78%*	341	*69%*	10	*100%*	1,325
Services other than the statutory audits	**105**	***9%***	**19**	***0%***			**124**	**108**	***9%***	**2**	***0%***		***0%***	**110**
Audit	**1,168**	***100%***	**605**	***100%***	**36**	***100%***	**1,809**	**1,252**	***100%***	**495**	***100%***	**10**	***100%***	**1,758**
Legal, tax, labour-related services	0	*0%*	0	*0%*			0		*0%*	0	*0%*			0
Other	0	*0%*		*0%*			0		*0%*		*0%*			0
Other services	**0**	***0%***	**0**	***0%***	**0**	***0%***	**0**	**0**	***0%***	**0**	***0%***	**0**	***0%***	**0**
TOTAL	**1,168**	***100%***	**605**	***100%***	**36**	***100%***	**1,809**	**1,252**	***100%***	**495**	***100%***	**10**	***100%***	**1,758**

Note 27 Financial instruments: financial assets and liabilities

27.1 Recognition and measurement of financial instruments

Financial instruments include financial assets, financial liabilities and derivatives (swaps, forward contracts, etc.).

Financial instruments appear under several headings in the balance sheet: non-current financial assets, other non-current assets, trade receivables, other receivables and other payables (*e.g.* changes in the fair value of derivatives), short-term and long-term borrowings, trade payables, cash and cash equivalents.

- Financial assets:

  The IFRS 9 standard breaks down the financial assets into 3 categories. These categories are described in Note 7 "Non-current financial assets".

  Current financial assets (excluding assets related to derivatives) are only assets valued at amortised cost.

- Financial liabilities:

  Borrowings are recognised at amortised cost, with the exception of debts on price supplements, revalued at each closure at their fair value as defined contractually.

  Other financial liabilities included in the other sections of current and non-current liabilities mainly concern trade payables, and are recognised at amortised cost, which in practice corresponds to their cost.

  For information, the only liabilities having a material financing component are the commitments for retirement benefits and liabilities related to termination benefits in Italy.

- Reclassifications of financial assets and liabilities:

  There were no reclassifications of financial assets and liabilities over the financial years presented between the various categories presented above.

- Derivative instruments:

  The Group has set up interest-rate and foreign exchange hedging instruments that meet the definition of hedges as specified in the IFRS 9 standard and coherent with its general policy on risk management (hedging relationship clearly defined and documented at the date of establishment of the hedge, demonstrated efficiency, eligible hedging instrument, no dominant credit risks...).

  In practice, the hedging instruments mainly correspond to simple products covering a single risk (swaps, forward sales, options...), for which the main characteristics (reference rates, interest payment dates...) back the items covered, with the exception of cross-currency swaps, which cover exchange rate risks, and interest rate risks related to the repayment of loans made in dollars by bioMérieux SA to bioMérieux Inc. for financing BioFire.

  The hedging instruments are recognised originally at their fair value. They are subsequently remeasured to fair value at year-end and are recorded in the balance sheet under "Non-operating receivables" and "Non-operating payables". Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement

date (IFRS 13). The fair value of currency derivatives is determined using standard market valuation techniques based on observable market data (interest rates, exchange rates, observable implied volatility). Fair value generally corresponds to a level 2 of fair value.

Accounting for changes in their fair value depends on the type of derivative concerned and whether there is a hedging relationship, and if so what type of hedge is involved:

- fair value gains and losses on derivatives not qualifying as hedging instruments are recognised in the consolidated income statement. Fair value gains and losses on derivatives qualifying and used as cash flow hedges (*i.e.* hedges of foreign currency receivables and payables) are recognised in full in the consolidated income statement on a symmetrical basis with the loss or gain on the hedged item;
- fair value gains and losses on derivatives qualifying and used as cash flow hedges (*i.e.* hedges of future commercial transactions in foreign currencies, mainly in the form of forward transactions and cross-currency swaps) are recognised directly in other comprehensive income for the effective portion, and in the income statement for the non-effective portion (mainly the time value of money in the case of forward currency transactions). Amounts recognised under other comprehensive income are reclassified to income in the same period(s) during which the hedged forecast cash flows affect income.

Presentation of financial assets and liabilities at fair value through income

In accordance with IFRS 13, financial instruments are presented in one of the three levels (see Note 27.2) of the fair value hierarchy:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: market inputs for the asset or liability that are observable either directly (*e.g.*, adjusted level 1 quoted prices), or indirectly (*e.g.*, inputs derived froquoted prices);
- Level 3: non-market inputs for the asset or liability that are not observable (*e.g.* price on an inactive market or valuation based on multiples for unlisted securities).

27.2 Changes

The breakdown of financial assets and liabilities according to the categories specified by the IFRS 9 standard "non-accounted" categories (see Note appendix 27.1), and the comparison between the accounting values and fair values, are given in the table below (excluding receivables, tax debts and liabilities to personnel):

	December 31, 2018						
In millions of euros	Financial assets at fair value through income (excl. derivatives)	Securities not consolidated with variation in fair value by other comprehensive income	Receivables and borrowings at amortised cost	Derivative instruments	Value accounting	Fair value	Level
Financial assets							
Shares in non- consolidated companies		58.9			58.9	58.9	1-3
Other non-current financial assets			12.9		12.9	12.9	-
Other non-current assets			14.6		14.6	14.6	
Derivative instruments (positive fair value)				9.3	9.3	9.3	2
Trade receivables			446.4		446.4	446.4	-
Other receivables			4.8		4.8	4.8	-
Cash and cash equivalents	280.1				280.1	280.1	1
TOTAL FINANCIAL ASSETS	**280.1**	**58.9**	**478.7**	**9.3**	**827.0**	**827.0**	
Financial liabilities							
Bond loan[(a)]			299.1		299.1	318.8	1
Other financing facilities			147.7		147.7	147.7	2
Derivative instruments (negative fair value)				27.0	27.0	27.0	2
Borrowings - current portion			100.2		100.2	100.2	2
Trade payables			176.9		176.9	176.9	-
Other current liabilities			56.0		56.0	56.0	-
TOTAL FINANCIAL LIABILITIES	**-**	**-**	**779.9**	**27.0**	**806.9**	**826.6**	

(a) The carrying amount of the bond issue is shown net of issue fees and premiums.

Levels 1 to 3 correspond to the fair value hierarchy as defined by IFRS 13 (see Note 27.1).

In practice, financial assets and liabilities at fair value essentially concern certain securities, cash investments and derivative instruments. In other cases, fair value is shown in the table above for information purposes only.

No level in the fair value hierarchy is shown when the carrying amount approximates fair value.

bioMérieux enters into derivative instruments as part of master agreements that provide for offsetting in the event of counterparty default. The impact of these master netting agreements on the fair value of derivative instruments at December 31, 2018 was a net negative exposure of €17.7 million versus a net exposure of €11.8 million at end-2017.

No inter-category reclassifications were carried out in 2018. None of the Group's financial assets has been pledged as collateral.

Impairment losses recorded against financial assets primarily relate to write-downs of trade receivables (see Note 9) and non-current financial assets (see Note 7).

	December 31, 2017						
In millions of euros	Financial assets at fair value through income (excl. derivatives)	Securities not consolidated with variation in fair value by other comprehensive income	Receivables and borrowings at amortised cost	Derivative instruments	Value accounting	Fairvalue	Level
Financial assets							
Other shares in non-consolidated companies		50.9			50.9	50.9	1-3
Other non-current financial assets			7.0		7.0	7.0	-
Other non-current assets			14.1		14.1	14.1	
Derivative instruments (positive fair value)				15.3	15.3	15.3	2
Trade receivables			460.1		460.1	460.1	-
Other receivables			6.7		6.7	6.7	-
Cash and cash equivalents	312.1				312.1	312.1	1
TOTAL FINANCIAL ASSETS	**312.1**	**50.9**	**487.9**	**15.3**	**866.2**	**866.2**	
Financial liabilities							
Bond loan[(a)]			298.6		298.6	318.8	1
Other financing facilities			92.5		92.5	92.5	2
Derivative instruments (negative fair value)				27.1	27.1	27.1	2
Borrowings - current portion			76.9		76.9	76.9	2
Trade payables			161.3		161.3	161.3	-
Other current liabilities			51.9		51.9	51.9	-
TOTAL FINANCIAL LIABILITIES	**-**	**-**	**681.2**	**27.1**	**708.3**	**728.5**	

(a) The carrying amount of the bond issue is shown net of issue fees and premiums.

Movements in financial instruments whose fair value was determined using Level 3 inputs under IFRS 13 (see Note 27.1) at December 31, 2018 were as follows:

In millions of euros	Shares in non- consolidated companies
DECEMBER 31, 2016	**30.7**
Change of level 3 to 1	(9.5)
Gains and losses recognised in income	0.7
Gains and losses recognised in other comprehensive income	9.8
Acquisitions	13.8
Disposals	(0.9)
Changes in Group structure, translation adjustments and	(0.3)
DECEMBER 31, 2017	**44.3**
Change of level 3 to 2	(27.7)
Gains and losses recognised in income	
Gains and losses recognised in other comprehensive income	
Acquisitions	5.5
Disposals	0.0
Changes in Group structure, translation adjustments and	0.1
DECEMBER 31, 2018	**22.2**

The "change of level" line corresponds to the reclassification in level 1 or 2 of the fair value of securities that were previously valued on the basis of the share price with a marketability discount. These securities are now valued in direct reference to the share price.

Note 28 Risk management

28.1 Exchange rate risk

28.1.1 Group policy

Since more than half of the Group's operations are conducted outside the eurozone, its sales, earnings and assets and liabilities may be impacted by changes in exchange rates between the euro and other currencies. Sales are particularly affected by euro/US dollar exchange rate fluctuations (with about 42 of sales in 2018 denominated in US dollars) and, more occasionally, by fluctuations in the rate of the euro against other currencies.

In view of the size of the Group's operations in the US, certain operating expenses are settled in US dollars, thereby mitigating the impact of fluctuations in the US dollar on operating income, although this impact remains significant.

Currencies other than the euro and the dollar represent 30% of the Group's revenue. However, as costs incurred in other currencies are limited, the Group is exposed to the risk of fluctuations in these currencies. This exposure is spread over approximately 20 currencies, none of which accounts for more than 7% of the Group's sales. This exposure thus becomes significant only if several of the currencies concerned fluctuate against the euro in the same direction, without any set-off.

The Group's current policy is to seek to hedge the impact of exchange rate fluctuations on budgeted net income. It uses hedging instruments, when they are available at a reasonable cost, in order to mitigate risks relating to currency fluctuations. Its current practice is to put in place global hedges covering similar risks. Hedging contracts are purchased to cover transactions included in the budget and not for speculative purposes.

Distribution subsidiaries are currently mainly billed in their local currencies by manufacturing subsidiaries (except where prohibited by law), so that currency risks can be managed at Corporate level for manufacturing entities.

Whenever possible, the Group hedges currency risks arising on debt denominated in currencies other than those of the country in which operations are located, so as to offset any foreign currency translation risks. However, when these hedges are extended during the loan transaction, the Group recognises foreign exchange gains or losses when the hedges are unwound and simultaneously recontracted. These gains and losses cancel each other out over the term of the loan, but may be material in a given accounting period.

In addition to having an impact on the Group's net income, exchange rate fluctuations can affect its equity: due to its worldwide presence, many of its assets and liabilities are recorded in US dollars or in other foreign currencies. To date, the Group does not hedge these exchange rate risks on its net assets.

Hedges consist mainly of forward currency sales and purchases and options (maturing within 18 months at December 31, 2018). Detailed information on hedging transactions is provided in Note 28.1.3.

28.1.2 Exposure of revenue to exchange rate risks

In millions of euros	Dec. 31, 2018		Dec. 31, 2017	
Euro	**679**	**28%**	**645**	**28%**
Other currencies				
Dollars[(a)]	1,009	42%	930	41%
Chinese yuan	170	7%	151	7%
Indian rupee	59	2%	56	2%
Pound sterling	52	2%	52	2%
Japanese yen	46	2%	46	2%
Canadian dollar	39	2%	38	2%
South Korean won	42	2%	39	2%
Brazilian real	32	1%	50	2%
Australian dollar	33	1%	34	1%
Other currencies	262	11%	249	11%
SUB-TOTAL		**72%**		**72%**
TOTAL	**2,421**	**100%**	**2,288**	**100%**
Sensitivity of revenue	**(17)**		**(16)**	

(a) US and Hong Kong dollars.

The sensitivity analysed above shows the impact on sales of a 1% increase in the euro exchange rate against all currencies.

Consolidated equity

A 10% increase in the euro exchange rate against all currencies would have had the following effect:

	2018	2017
Net income	(38.3)	(36.4)
Shareholders' equity[(a)]	(128.1)	(70.3)

(a) Translated at the year-end (closing) exchange rate.

Exposure of assets and liabilities

The table below shows the US dollar and the five main currencies to which the Group is exposed at December 31, 2018:

In millions of currency units	USD	CNY	INR	KRW	CAD
Assets denominated in foreign currencies	46	379	839	13,151	10
Liabilities denominated in foreign currencies	(22)	(15)	0	(8)	0
Net exchange exposure before hedging	**24**	**364**	**839**	**13,143**	**10**
Impact of hedging	23	87	0	7,600	0
Net exchange exposure after hedging	**1**	**277**	**839**	**5,543**	**10**
In millions of currency units					
Net exchange exposure after hedging	**1.1**	**35.2**	**10.5**	**4.3**	**6.1**
SENSITIVITY	**(0.1)**	**(3.2)**	**(1.0)**	**(0.4)**	**(0.6)**

The sensitivity analysed above shows the impact of a 10 increase in the exchange rate on the net foreign exchange exposure at December 31, 2018, taking into account hedging transactions.

Exposure of borrowings

The Group's borrowings with third parties are primarily denominated in euros and contracted by bioMérieux SA. However, since these borrowings were contracted in order to finance an acquisition in the US, they were converted into US dollars using a Cross Currency swap (see Note 28.4.1).

The Group's policy is to prefer inter-company financing in the currency of the subsidiary; these loans are generally hedged by currency swap contracts. When it is difficult for the Group to grant loans to its foreign subsidiaries, the subsidiaries borrow from leading banks in their local currency.

28.1.3 Hedging instruments

As part of the currency hedging policy, the following currency hedging instruments were in effect at December 31, 2018:

Currency hedge at December 31, 2018 *In millions of euros*	Expiration date 2018		Market value 2018[(a)]
	<1 year	1 to 5 years	
Hedges of existing commercial transactions			
• currency forward contracts	70.1	0.0	0.1
• options	0.0	0.0	0.0
TOTAL	**70.1**	**0.0**	**0.1**
Hedges of future commercial transactions			
• currency forward contracts	332.7	1.9	(2.8)
• options	11.8	0.0	0.2
TOTAL	**344.5**	**1.9**	**(2.6)**

(a) Difference between the hedging price and the market price on December 31, 2018.

Currency hedges in effect at December 31, 2017 were as follows:

Currency hedge at December 31, 2017 *In millions of euros*	Expiration date 2017		Market value 2017[(a)]
	<1 year	1 to 5 years	
Hedges of existing commercial transactions			
currency forward contracts	59.6	0.0	(0.7)
options		0.0	0.0
TOTAL	**59.6**	**0.0**	**(0.7)**
Hedges of future commercial transactions			
currency forward contracts	266.4	2.5	(0.3)
options	37.8	0.0	1.1
TOTAL	**304.2**	**2.5**	**0.7**

(a) Difference between the hedging price and the market price on December 31, 2017.

There were no net investment hedges of foreign operations at December 31, 2018.

All of the currency forward contracts and options outstanding at December 31, 2018 had maturities of less than 18 months.

The table below gives the summary of hedging instruments held by the Group, and their variation in fair value:

In millions of euros	Category of the hedge	Notional hedge amount at closure	Fair value of the hedging instrument at closure		Variation in fair value of the hedging instrument over the financial year	
			assets	shareholders' equity and liabilities	of which share recognised in profit/loss	of which share recognised in OCI
FAIR VALUE HEDGE						
EUR interest rate risk						
Debt in EUR	Interest rate swap	300.0	3.5		(2.8)	
Debt in EUR	rate options	-	-	-		
Exchange rate risk					**(0.9)**	
trade receivables in currencies	forward sales	70.7	0.0			
trade debts in currencies	forward purchases	0.7	0.0			
financial receivables in currencies	forward sales	10.4		(0.0)		
borrowings in currencies	forward purchases	155.9		(0.8)		
CASH FLOW HEDGING						
EUR interest rate risk						
Debt in EUR	Interest rate swap					
USD interest rate risk						
loan in $	Cross currency swap	134.3		(17.8)	1.7	(0.6)
Exchange rate risk					**0.8**	**(2.4)**
future commercial sales in currencies	forward sales	331.0		(2.7)		
future commercial purchases in currencies	forward purchases	3.7		(0.1)		
future commercial sales in currencies	options	11.8	0.2			

The Group does not hold instruments coming within the category of net investment hedges.

28.2 Credit risk

Making revenue in more than 160 countries from public organisations of states and private customers, bioMérieux is exposed to a risk of non-payment of debts.

The management of credit risk includes the prior examination of the financial position of customers in order to determine a credit limit, the establishment of specific guarantees or insurance, and monitoring the payment deadline and late payments.

The policy of the group in terms of the depreciation of trade receivables is described in Note 9.

28.3 Liquidity risk

Financial liabilities due in less than one year and in more than one year are classified in the balance sheet as current and non-current liabilities, respectively.

The Group is not exposed to liquidity risk on its current financial assets and liabilities since its total current financial assets far exceed its total current financial liabilities.

Accordingly, the only maturity schedule disclosed pertains to net debt (see Note 16.3).

The table below shows projected cash flows from the bond issue and the hedges related to contractual redemption of the principal at par and to contractual interest payments at December 31, 2018:

In millions of euros	Due within 1 year	Due in 1 to 5 years	Due beyond 5 years
Bond loan[(a)]	(8.6)	(308.6)	0.0
Cross currency swap	(11.6)	(10.4)	0.0
Optional strategies[(b)]	0.0	0.0	0.0
Interest rate swap[(b)]	2.2	2.2	0.0

(a) Contractual flows of principal and interest
(b) Based on the IRS interest rate curve on December 31, 2018

28.4 Interest rate risk

28.4.1 Exposure to interest rate risks

As part of its interest rate risk management policy aimed primarily at managing the risk of an increase in interest rates, the Group splits its debt between fixed and floating interest rates.

The bond issue, after taking account of interest rate derivatives, breaks down as €150 million at fixed rates and €150 million at floating rates capped at 1.20% and with a floor of 0.30%. In April 2017, a new swap contract was taken out to cancel the floating rate as from July 18, 2018.

In order to hedge the exchange rate and interest rate risk on the repayments of the US dollar denominated loan granted by bioMérieux SA to bioMérieux Inc. to finance the acquisition of BioFire, the Group set up a cross currency swap in January 2014 for US$470 million. The instrument thus converts the debt in dollars into a debt in euro, one of the legs of which representing 57% of the notional amount receives the variable interest rate.

An indexed variable-rate real estate lease financing agreement in the amount of €44.4 million was set up in 2016 to finance Campus de etoile. This financing is not backed by any hedging mechanism.

28.4.2 Hedging instruments and sensitivity

At December 31, 2018, the interest rate risk hedging portfolio comprised interest rate swaps for €150 million, options for €150 million and a cross currency swap for US$470 million (see Note 28.4.1).

The market value of these instruments represents a net liability of €13.8 million. It breaks down as follows:

In millions of euros	Market value 2018
Cross currency swap	(18.3)
Options	0.0
Interest rate swap	4.5

Sensitivity of net income to changes in the cost of net debt (excluding the impact of the cross currency swap) attributable to fluctuations in short-term interest rates

The impact on the cost of debt (calculated on a full-year basis) resulting from changes in net debt at year-end attributable to fluctuations in short-term interest rates is shown in the table below including the impact of interest rate hedging:

In millions of euros	Net income
50-bp increase	(0.095)
50-bp decrease	0.000

Sensitivity of equity and net income to changes in the fair value of interest rate derivatives

Changes in the fair value of interest rate derivatives attributable to changes in the interest rate curve adopted at year-end would have the following impact on the Group's equity and net income:

- the impacts recognised in equity relate to the effective portion of the instruments classified as cash flow hedges;
- the impacts recognised in income relate to the ineffective portion of instruments classified as cash flow hedges, and to the impact of changes in the fair value of instruments that do not qualify for hedge accounting.

A change of 50 basis points applied to the entire yield curve at year-end and to transactions in effect at December 31, 2018 would have led to an increase (decrease) in equity and net income for the following amounts (based on constant exchange rates and volatility):

In millions of euros	Equity (excluding profit/loss)	Net income
50-bp increase	0.0	(0.02)
50-bp decrease	0.0	0.02

Sensitivity of equity and net income to changes in the fair value of the cross currency swap

A change of 50 basis points applied to the entire yield curve (euro and US dollar) would have led to an increase (decrease) in equity and net income for the following amounts:

In millions of euros	Shareholders' equity (excl. net income)	Net income
50-bp increase	0.0	0.3
50-bp decrease	0.0	(0.3)

A change of 5% in the euro/U.S. dollar closing rate at year-end (1.1450) as well as to transactions in effect at December 31, 2018 would have led to an increase (decrease) in equity and net income for the following amounts:

In millions of euros	Shareholders' equity (excl. net income)	Net income
Increase of 5%	0.0	5.8
Decrease of 5%	0.0	(6.4)

These impacts on income would have been perfectly offset by the impact that the underlying change would have had if it had been subject to the same changes.

The impact on the cost of debt (calculated on a full-year basis) resulting from a 50 basis point change and a 5% change in the euro/dollar closing rate applied to net debt at year-end attributable to fluctuations in short-term interest rates is shown in the table below including the impact of interest rate hedging on this date:

In millions of euros	Net income
Increase of 50 bp and 5%	3.1
Decrease of 50 bp and 5%	(3.5)

28.5 Counterparty risk

Since there is currently no major financial or economic crisis, the Group is not exposed to a significant credit risk. At December 31, 2018 and 2017, investments were solely in short-term instruments for which a net asset value is calculated daily.

The Group's financial transactions (credit facilities, financial market transactions, financial investments, etc.) are with leading banks and are spread among all of its banking partners in order to limit counterparty risk.

No IFRS 13 adjustments were therefore applied to financial assets in respect of the risk of non-collection.

Still in the context of the IFRS 13 standard, an analysis was carried out to assess the credit risk related to the fair value of financial instruments. Counterparty risk was not considered material given the short-term maturity (less than one year) of the Group's currency hedges, the fair value of interest rate derivatives at December 31, 2018 and the rating of bioMérieux's banking counterparties.

Note 29 Off-balance sheet commitments

Outstanding commitments given or received at December 31, 2018 are described below:

29.1 Off-balance sheet commitments relating to Group companies

- The Group is subject to a number of earn-out clauses relating to acquisitions and disposals. At closure, it was not deemed probable that these clauses would be triggered, or the amount involved could not be reliably estimated.

29.2 Off-balance sheet commitments relating to the Company's financing

- Commitments related to borrowings are described in Note 16.3.
- Commitments related to derivative instruments are described in Note 27.

29.2.1 Commitments given

- Bank guarantees given by the Group in connection with bids submitted totalled €209.1 million at December 31, 2018.

29.2.2 Commitments received

- bioMérieux SA benefits, on December 31, 2018, from a non-drawn syndicated credit facility of €500 million, which was amended in 2018 bringing its maturity to January 2024 (5 years with the option for extension twice for one year, one of which remains to be exercised). (See Note 16.2)

29.3 Off-balance sheet commitments relating to the Group's operating activities

29.3.1 Commitments given

- bioMérieux Inc. and bioMérieux SA are parties to various agreements that provide for payments based on progress in corresponding research projects or a minimum volume of sales (€5.1 million).
- Real estate rent commitments given by Group companies amounted to €71.5 million at December 31, 2018, of which €62.6 million was payable beyond one year. Annual lease costs represented €15.1 million in 2018 and €14.3 million in 2017.
- Within the framework of the share grant plans approved by the Board of Directors, bioMérieux SA, which holds 542 shares as coverage, would need to purchase 92,712 additional shares if all of the promised shares were to be granted. This commitment represents an amount of €5.3 million based on the share price at December 31, 2018.
- bioMérieux SA entered into a ten-year partnership with BIOASTER, a Technological Research Institute in Lyon specialised in infectious diseases. In the period 2012-2015, its contribution to research activities resulted in new partnership agreements being put in place with BIOASTER for almost €4 million. bioMérieux's own employees are also involved in these partnership agreements. A new collaboration cycle was opened for the period between January 1, 2016 and end of July 2020 during which bioMérieux SA has made a commitment to BIOASTER in the same proportions.
- bioMérieux SA participates in a research program coordinated by Institut Mérieux, together with bioMérieux, Transgène, Genosafe and the Genethon association. The aim of this program is to develop a new generation of diagnoses and therapies focusing on cancers, infectious diseases and genetic disorders. This program is known under the acronym "ADNA" (for "Advanced Diagnostics for New therapeutic Approaches"). The program receives financing from the French government's Industrial Innovation Agency (*Agence de l'innovation industrielle*), which merged with OSEO ANVAR in 2007, and was renamed Bpifrance in July 2013. The public financing agreement was approved by the European authorities on October 22, 2008. In this context, and given the addendums that modified the initially-adopted research programme, bioMérieux SA began research and development work for an estimated amount of €67.5 million covering the period 2007 to 2017. The programme ended in December 2017. In return, bioMérieux SA received subsidies (€16.1 million) and repayable grants (€7.5 million). In case of success, bioMérieux SA will have to reimburse the reimbursable aid according to a payment schedule that depends on the revenue made, then pay a profit share until 2029 (3.4% of revenue). Other commitments given (endorsements and guarantees other than real estate rent obligations) amounted to €2.2 million.
- bioMérieux SA has committed to participate in a capital increase of ATI in the amount of €0.2 million.

29.3.2 Commitments received

- Other commitments received amounted to €16.4 million.

Note 30 Transactions with related parties

30.1 Directors' and officers' compensation

The Company's directors and members of the Executive Committee were paid an aggregate €12.2 million in compensation in 2018.

Executive compensation *In millions of euros*	2018	2017
Fixed compensation	4.8	5.4
Variable compensation	4.7	5.3
Benefits-in-kind	0.2	0.2
Free shares	2.4	4.8
Directors' fees	0.0	0.1
Termination benefits	0.0	0.6
TOTAL	**12.2**	**16.4**

30.2 Other transactions with non-consolidated affiliates

- The Institut Mérieux, which holds 58.9% of bioMérieux SA on December 31, 2018, provided services and research for the bioMérieux Group standing at €7.6 million over the financial year, reinvoiced to bioMérieux Inc. for €2.6 million and BioFire for €1.1 million. bioMérieux SA reinvoiced €0.5 million to Institut Mérieux for expenses paid on its behalf.
- During 2018, the Group supplied €10.9 million worth of reagents and instruments to entities of the Mérieux NutriSciences Corp. group, in which Institut Mérieux holds a majority interest.
- Théra Conseil, which is 99.2% owned by Institut Mérieux, billed bioMérieux SA €1.9 million for services in respect of 2018.
- Also during the year, bioMérieux SA contributed €2 million to the Fondation Christophe & Rodolphe Mérieux. Conversely bioMérieux SA reinvoiced the Fondation Mérieux €0.2 million for expenses paid on its behalf.
- ABL, wholly owned by Institut Mérieux, invoiced raw materials to bioMérieux SA for €1.2 million during the 2018 financial year. Also, ABL benefits from a loan of $2.3 million subscribed from bioMérieux Inc. During the 2018 financial year, bioMérieux SA invoiced services for €1.7 million to Mérieux University, which it holds at 40%, the remaining 60% being held by the Institut Mérieux (40%) and Mérieux NutriSciences (20%). Conversely, it paid €4.3 million to Mérieux University for training fees.

Note 31 Subsequent events

In February 2019, bioMérieux acquired the company Invisible Sentinel Inc. The total amount paid stood at $75 million. The company is based in Philadelphia (United States) and develops, manufactures and markets molecular diagnostic solutions for the detection of disease-causing organisms and other contaminants in food and drink.

The company employs 40 persons and had revenue of about $9 million in 2018.

Note 32 Consolidation

bioMérieux is a fully consolidated entity of Compagnie Mérieux Alliance (17 Rue Bourgelat, 69002 Lyon, France).

Note 33 List of consolidated companies at December 31, 2018

Changes in scope that took place in 2018 are described in Note 1.1.

		2018[a]	2017	2016
bioMérieux SA	69280 Marcy-l'Etoile – France R.C.S. Lyon B 673 620 399			Parent company
AB bioMérieux	Dalvägen 10 169,169 Solna, Stockholm – Sweden	100%	100%	100%
ABG STELLA	1105 N Market St Suite 1300 Wilmington, Delaware 19801 – US	100%	100%	100%
Advencis SAS	1 Rue Gambrinus, Parc de la Brasserie 67190 Mutzig – France			100%
AES Canada Inc.	500 boul. Cartier Ouest, suite 262 H7V 5B7 Laval, QC – Canada	100%	100%	100%
AES Chemunex GmbH	Zeiloch 20 – 76646 Bruschal – Germany		100%	100%
Applied Maths Inc.	11940 Jollyville Road, Suite 115N Austin, Texas 78759 – US	100%	100%	100%
Applied Maths NV	Keistraat 120,9830 Sint-Martens-Latem Belgium	100%	100%	100%
Astute Medical Inc.	3550 General Atomics Court Building 02/620 San Diego, CA 92121 - United States	100%		
Bacterial Barcodes Inc.	425 River Road – Athens – GA 30602 – US	100%	100%	100%
BioFire Defense Inc.	79 W 4500 S, Suite 14 Salt Lake City, UT 84107 – US	100%	100%	100%
BioFire Diagnostics Inc.	390 Wakara Way Salt Lake City, Utah 84108 – US	100%	100%	100%
bioMérieux South Africa	1st Floor, 44 on Grand Central, 1 Bond Street, cnr Grand Central Boulevard, Midrand 1682 – South Africa	100%	100%	100%
bioMérieux West Africa	Avenue Joseph Blohorn (08) BP 2634 Abidjan 08 – Ivory Coast	100%	100%	100%
bioMérieux Algeria	Bois des cars 2 – Lot 11 1er étage – 16302 Dely Ibrahim Algiers – Algeria	100%	100%	100%
bioMérieux Germany	Weberstrasse 8 – D 72622 Nürtingen – Germany	100%	100%	100%
bioMérieux Argentina	Edificio Intecons – Arias 3751 3er piso – C1430CRG Buenos Aires – Argentina	100%	100%	100%
bioMérieux Australia	Unit 25B, Parkview Business Centre – 1 Maitland Place Baulkham Hills NSW 2153 – Australia	100%	100%	100%
bioMérieux Austria	Eduard-Kittenberger-Gasse 95-B, A-1230 Wien – Austria	100%	100%	100%
bioMérieux Belgium	Media Square – 18-19 Place des Carabiniers 1030 Brussels – Belgium	100%	100%	100%
bioMérieux Benelux BV	Regus - Amersfoort A1, Databankweg 26, 3821 AL Amersfoort - The Netherlands	100%	100%	100%
bioMérieux Brazil	Estrada Do Mapuá, 491 Jacarepaguá – CEP 22713,320 Rio de Janeiro – RJ – Brazil	100%	100%	100%
bioMérieux Canada	7815 boulevard Henri Bourassa – West – H4S 1P7 Saint Laurent (Québec) – Canada	100%	100%	100%
bioMérieux Chile	Seminario 131 – Providencia – Santiago – Chile	100%	100%	100%
bioMérieux China	19/Floor Billion Plaza8 Cheung Yue Street – Kowloon – Hong Kong	100%	100%	100%

		2018[a]	2017	2016
bioMérieux Colombia	Carrera 7 No. 127–48 – Oficina 806 – Bogota DC – Colombia	100%	100%	100%
bioMérieux Korea	1st and 2nd floor Yoo Sung Building #830-67, Yeoksam-dong, Kangnam ku – Seoul – South Korea	100%	100%	100%
bioMérieux CZ	Hvezdova 1716/2b – Prague 4 – 140 78 – Czech Republic	100%	100%	100%
bioMérieux Denmark	Lautruphøj 1-3, DK-2750, Ballerup – Denmark	100%	100%	100%
bioMérieux Spain	Manuel Tovar 45-47 – 28034 Madrid – Spain	100%	100%	100%
bioMérieux Finland	Tekniikantie 14 FI-02150 Espoo – Finland	100%	100%	100%
bioMérieux Greece	Papanikoli 70 – 15232 Halandri – Athens – Greece	100%	100%	100%
bioMérieux Hong Kong Investment	19/Floor Billion Plaza 8 Cheung Yue Street – Kowloon – Hong Kong	100%	100%	100%
bioMérieux Hungary	Vaci ut 175 – 1138 Budapest – Hungary	100%	100%	100%
bioMérieux Inc.	100 Rodolphe Street – Durham NC 27712 – US	100%	100%	100%
bioMérieux India	A–32, MohanCo-operative Ind. Estate – New Delhi 110,044 – India	100%	100%	100%
bioMérieux International SAS (formerly Stella SAS)	69280 Marcy-l'Etoile – France		100%	100%
bioMérieux Italy	Bagno a Ripoli, Via di Campigliano, 58 – 50012 Ponte a Ema – Florence – Italy	100%	100%	100%
bioMérieux Japan Ltd (formerly Sysmex bioMérieux)	Akasaka Tameike Tower 2F, 2-17-7, Akasaka, Minato-ku, Tokyo	100%	100%	66%
bioMérieux Kenya	Delta Office Suites, Land Reference No. 4393/27, Waiyaki Way, P. O. Box 30333 – 00100 - G.P.O Nairobi - Kenya	100%		
bioMérieux Malaysia	A-15-13A Tower A, Menara Prima Avenue, Jalan PJU 1/39, Dataran Prima 47301 Petaling Jaya, Selangor darul Ehsan - Malaysia	100%	100%	100%
bioMérieux Mexico	Chihuahua 88, col. Progreso – Mexico 01080, DF – Mexico	100%	100%	100%
bioMérieux Middle East	DHCC Al Baker Building 26 - Office 107 - P.O. Box 505 201 Dubai – United Arab Emirates	100%	100%	100%
bioMérieux Norway	Nydalsveien 28 P.B. 4814 Nydalen - N-0484 Oslo - Norway	100%	100%	100%
bioMérieux Poland	ul. Gen. J. Zajączka 9 - 01-518 Warsaw - Poland	100%	100%	100%
bioMérieux Portugal	Av. 25 de Abril de 1974, No. 23-3° – 2795-197 Linda A Velha Portugal	100%	100%	100%
bioMérieux United Kingdom	Grafton Way, Basingstoke Hampshire RG 22 6HY - United Kingdom	100%	100%	100%
bioMérieux Russia	1st Nagatinskiy proezd, 10, str.1, business center "Newton Plaza" - Moscow 115 533 - Russia	100%	100%	100%

		2018[a]	2017	2016
bioMérieux (Shanghai) Biotech Co. Ltd (formerly Meikang)	NO. 4633 Pusan Road, Kangqiao Industrial Park – Pudong New District – Shanghai – 201315 – China	100%	100%	100%
bioMérieux Shanghaï Company Ltd	NO. 4633 Pusan Road, Kangqiao Industrial Park – Pudong New District – Shanghai – 201315 – China	100%	100%	100%
bioMérieux Singapore	11 – Biopolis Way – Helios – Unit # 10-04 – 138667 – Singapore	100%	100%	100%
bioMérieux Sweden	Hantverksvagen 15 – 43633 Askim – Sweden	100%	100%	100%
bioMérieux SRB doo	Belgrade Office Park, Djordja Stanojevica 12/III, New Belgrade, 11070 Belgrade - Serbia	100%	100%	100%
bioMérieux Switzerland	51 Avenue Blanc – Case Postale 2150 – 1202 Geneva – Switzerland	100%	100%	100%
bioMérieux Thailand	3195/9 Vibulthani Tower, 4th floor – Rama IV Road – Klongton – Klongtoey – Bangkok 10110 – Thailand	100%	100%	100%
bioMérieux Turkey	Isiklar Cad. NO 29, Atasehir - 34750 Istanbul - Turkey	100%	100%	100%
bioMérieux Vietnam	Floor 10, Vinaconex Tower, 34 Lang Ha, Lang Ha ward, Dong Da District, Hanoi – Vietnam	100%	100%	100%
BTF Pty Limited	PO Box 599 – North Ryde BC – NSW 1670 – Australia	100%	100%	100%
Cambridge Biotech	365 Plantation Street One Biotech Park Worcester, MA 01605 – United States	100%	100%	100%
Huilai	Room 8738, Building 1, No. 1758, Luchaogang Road, Nanhui New Town, Pudong New District - China	100%		
Hyglos Invest GmbH	Am Neuland 3 – 82347 Bernried am Starnberger See Germany	100%	100%	100%
Hyglos GmbH	Am Neuland 3 – 82347 Bernried am Starnberger See Germany	100%	100%	100%
Mérieux Université	113 Route de Paris – 69160 Tassin-La-Demi-Lune – France	40%	40%	40%
Quercus Scientific NV	Keistraat 120,9830 Sint-Martens-Latem Belgium	100%	100%	100%
RAS Lifesciences	Plot NO. 13, 4-7-18/13/2, Raghavendra Nagar, Nacharam, Hyderabad - 500 076 - India	100%	70%	70%
SSC Europe	ul. Gen. J. Zajączka 9 - 01-518 Warsaw - Poland	100%	100%	100%
Suzhou Hybiome Biomedical Engineering Co Ltd	Building 4, No. 8, Jinfeng Road, Suzhou High-tech Zone - China	54%		
Yan Set Invest Development	19/F Billion Plaza, 8 Cheung Yue Street Cheung Sha Wan Kowloon - Hong-Kong	100%	100%	100%

(a) Percentage control is identical to percentage interest, except in the case of Hyglos Invest GmbH, for which the percentage interest is 75%.

6.1.3 Report of the Statutory Auditors on the consolidated financial statements

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speakingreaders. The Statutory Auditors' report includes information specifically required by French law in such reports, whether modified or not. Thisinformation is presented below the opinion on the consolidated financial statements and includes an explanatory paragraph discussing the Auditors'assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinionon the consolidated financial statements taken as a whole and not to provide separate assurance on individual account captions or on informationtaken outside of the consolidated financial statements. This report should be read in conjunction with, and construed in accordance with, French lawand professional auditing standards applicable in France.

At the bioMérieux Annual General Meeting,

Opinion

In performing the duty assigned to us by your Annual General Meetings, we conducted an audit of the consolidated financial statements of bioMérieux for the year ended December 31, 2018 as appended to this report.

In our opinion, the consolidated financial statements are, in accordance with International Financial Reporting Standards as adopted by the European Union, reliable and give a true and fair view of the results of the operations for the year under review as well as of the financial position and assets, at the end of the year, of the parties and entities included in the consolidation scope.

The opinion expressed above is consistent with the contents of our report to the Audit Committee.

Basis for opinion

Audit Standard

We conducted our audit according to generally accepted professional standards in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Our responsibilities by virtue of these standards are stated in the section "Statutory Auditors' responsibilities relating to the audit of the consolidated financial statements" of this report.

Independence

We have conducted our audit in compliance with the rules of independence that apply to us, from the period between January 1, 2018 to the date of issue of our report, and in particular we have not provided services prohibited by article 5, Paragraph 1, of EU regulation No. 537/2014 or by the Auditors' Code of Ethics.

Notes

Without bringing into question the opinion expressed above, we draw your attention to Note "2. General accounting principles" in the notes to the consolidated financial statements, which describes the impacts of changes in the accounting method arising from the application on January 1, 2018 of IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from Contracts with Customers".

Justification for our assessments – Key points of the audit

Pursuant to the provisions of articles L.823-9 and R.823-7 of the French Commercial Code relating to the justification of our assessments, we draw your attention to the key points of the audit relating to risks of material misstatements which, according to our professional judgement, were the most significant for the audit of the consolidated financial statements for the financial year, plus the answers we have provided to control these risks.

Our assessments on these matters are part of the audit process for consolidated financial statements taken as a whole and the formation of our opinion expressed above. We do not express an opinion on the elements of these consolidated financial statements taken separately.

Acquisition of Astute Medical Inc. and Suzhou Hybiome Biomedical Engineering Co. Ltd

Risk identified	Our response
As described in Note 1.1.1 of the notes to the consolidated financial statements, on April 4, 2018, the Group acAquired 100% of the shares in Astute Medical Inc., for a total cash amount of €75.2 million. Astute Medical Inc. was consolidated by the full consolidation method from the takeover date, giving mainly rise to the recognition of the technologies net of deferred tax liabilities for €25.9 million, deferred tax assets of €16.2 million and provisional goodwill of €28.4 million. As described in Note 1.1.2 to the consolidated financial statements, on November 3, 2018, the Group acquired a 54.48% interest in the capital of Suzhou Hybiome Biomedical Engineering Co. Ltd, giving it majority control. The acquisition was carried out for an amount of €105.9 million in the form of a business combination. The consolidation of the company through full consolidation gave rise to the recognition of a technology subject to amortisation for €41.9 million after the tax effect, as well as provisional goodwill, recognised according to the full goodwill method, of €139.3 million, of which €83.1 million returns to the Group. In the case of acquisitions, the Group applies the accounting principles stipulated by IFRS 3, as amended, and as described in Note 5.1 of the notes to the consolidated financial statements. We considered that the recognition and presentation of these transactions was a key audit matter, considering the significant character of these acquisitions and the judgement required in the valuations carried out, in particular the estimated fair value of property, plant and equipment and intangible assets and the valuation of liabilities.	Our work consisted primarily of: • reviewing the legal aspects of these acquisitions, in particular the consideration of the principal contractual clauses, when determining the accounting treatment of the transaction; • assessing the application of the provisions of IFRS 3, as amended, and the arrangements for implementing this standard (in particular, determining the price of the acquisition, identifying assets and liabilities, and evaluating the resulting goodwill); • reviewing the fair value of financial liabilities, including data underlying the determination of the discount rate selected and the calculation formulas used, in comparison with the contractual provisions; • assessing the appropriateness of the information provided in the notes to the consolidated financial statements in relation to this acquisition.

Evaluation of consolidated goodwill

Risk identified	Our response
As at December 31, 2018, goodwill and other intangible assets with indefinite useful lives stood at €616.5 million and represented 18.2% of the Group's balance sheet. As described in Note 5 of the notes to the consolidated financial statements, on the date of acquisition, goodwill is attached to a cash-generating unit depending on the synergies expected for the Group. At the end of each reporting period, the Group systematically tests cash-generating units (CGUs) for impairment and also determines whether there are any indications of a loss of value. Impairment testing is used to determine the recoverable amount of a CGU or group of CGUs, representing the higher of their value in use and fair value less costs to sell. In practice, the value in use of a CGU or group of CGUs is determined primarily on the basis of discounted operating cash flow projections covering a period of five years and based on the most recent business plan, and a terminal value. We consider this issue to be a key point of our audit given the fact that the recoverable amount of this goodwill is based to a very large extent on the judgement of senior management, in particular with respect to operating margins, the growth rate rates used for cash flow projections and the discount rates applied to them.	We included assessment specialists in the audit team in order to examine the impairment tests performed by senior management. Our work consisted mainly in: • assessing the principles and methods for determining evidence of impairment and the recoverable amount of goodwill; • analysing, most notably through interviews with senior management, the main data and assumptions on which the estimates are based (such as the discount rate and the perpetuity growth rate); • reviewing the business outlook of legal entities or ranges that show evidence of loss of value through interviews with senior management and in comparing the accounting estimates of cash flow projections of previous periods with the corresponding actual figures; • comparing, through random sampling, the accounts of the data used in carrying out impairment tests and testing the accuracy of the arithmetic calculations of the valuations used by the Group.

Assessment of obligations related to defined benefit pension plans

Risk identified	Our response
The Group creates provisions to cover defined benefit scheme and other long-term benefit obligations primarily in the United States and France. As at December 31, 2018, the Group recorded a net liability of €41.4 million for these obligations, of which €26.7 million of pension benefit obligations. The amount of pension benefit obligations corresponds to the difference between the present value of the defined benefit obligations (€227.3 million) and the fair value of assets held by funds amounting to €200.5 million. These obligations are calculated according to the "projected unit credit" method and take into consideration actuarial assumptions, in particular the discount rate, the rate of future salary increases, employee turnover and the mortality rate, as described in Note 15.3 of the notes to the consolidated financial statements; We consider the valuation of obligations linked to pension scheme benefits to be a key point of our audit inasmuch as the determination of these assumptions depends on the judgements made by senior management, and any change in these assumptions is likely to prompt a significant variation in the amount of net liability.	With the help of our actuarial specialists, we examined the key assumptions used by senior management and the information used by the actuaries appointed by senior management to assess pension benefit obligations, more especially in the United States and France. We carried out the following: • a review of the main actuarial assumptions used; • sampling of the employee data used in order to carry out the valuation of the obligations; • a reconciliation of the fair value of plan assets against external comparisons; • a review of the calculation method; • consistency checks on the weight of the current service cost, the interest expense given the discount rate assumption, the rate of return of financial assets, the impact on profit and equity. We have analysed the appropriateness of the level of information provided in the notes to the consolidated financial statements and, in particular, the correctness of the assessment of the sensitivity of the value of the obligation to a change in the discount rates.

Specific verification

As required by the legal and regulatory provisions, and in accordance with the professional standards applicable in France, we have also verified the information presented in the management report for the Group.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We hereby certify that the consolidated statement of non-financial performance provided for by article L. 225-102-1 of the French Commercial Code appears in the Group's management report, it being specified that, in accordance with the provisions of article L. 823-10 of this Code, we have not verified the fairness of the information contained in this statement or its consistency with the consolidated financial statements, which must be the subject of a report by an independent third-party body.

Information from other legal and regulatory obligations

Appointment of Statutory Auditors

We were appointed Statutory Auditors of bioMérieux by your General Meeting of May 30, 2017 for GRANT THORNTON and May 30, 2012 for ERNST & YOUNG et Autres.

As at December 31, 2018, GRANT THORNTON was in the second continuous year of its audit engagement while ERNST & YOUNG et Autres was in the seventh year.

Responsibilities of senior management and the persons constituting corporate governance for the consolidated financial statements

Senior management is responsible for the preparation of consolidated financial statements that present a true view in accordance with the IFRS standard adopted by the European Union, together with the implementation of the internal control it deems relevant to the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

When preparing the consolidated financial statements, senior management is responsible for assessing the Company's ability to continue as a going concern, to present in these financial statements, if necessary, information concerning the continuity of the Company's operations and to apply the accounting policy of going concern, unless there are plans to unwind the Company or discontinue the business.

The Audit Committee is responsible for monitoring the financial reporting preparation process and the effectiveness of internal control and risk management systems and, if necessary, the Internal Audit Department with respect to procedures relating to preparation and treatment of financial and accounting information.

These consolidated financial statements have been approved by the Board of Directors

Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements

Audit objective and procedure

It is our duty to draw up a report on the consolidated financial statements. Our objective is to obtain reasonable assurance that the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance corresponds to a high level of assurance, without however guaranteeing that an audit conducted in accordance with professional standards will systematically detect any material misstatement. Misstatements may arise from fraud or result from errors and are considered as material when it can be reasonably expected that, taken singly or together, they can influence the economic decisions that users of the financial statements take based thereon.

As stated in article L.823-10-1 of the French Commercial Code, our engagement to certify the financial statements does not consist in guaranteeing the viability or quality of management of your Company.

Within the framework of an audit conducted in compliance with professional standards applicable in France, the statutory Auditor exercises his professional judgement throughout the audit. Furthermore:

- the statutory auditor identifies and assesses the risks whereby the consolidated financial statements may contain material misstatements, whether from fraud or errors, defines and implements audit procedures regarding these risks, and collects the elements it considers sufficient and appropriate on which to base its opinion. The risk of not detecting a material misstatement arising from fraud is higher than the risk of a material misstatement resulting from an error, because fraud may imply collusion, falsification, voluntary omissions, false declarations or the circumvention of internal control; circumstances and in the aim of expressing an opinion on the effectiveness of internal control;
- the statutory auditor reviews the relevant internal control for the audit in order to define the appropriate audit procedures for the circumstances and in the aim of expressing an opinion on the effectiveness of internal control;
- he assesses the appropriateness of the accounting methods used and the reasonable nature of the accounting estimates made by senior management, as well as information concerning these methods provided in the consolidated financial statements;
- he assesses the appropriateness of the application by the management of the going concern concept and, according to the elements collected, whether or not there is a material uncertainty linked to events or circumstances likely to compromise the Company's ability to continue as a going concern. This assessment is based on the information collected until the date of his report. It is however pointed out that subsequent circumstances or events could jeopardise continuity as a going concern. If he concludes that there is a material uncertainty, the statutory auditor draws the attention of the readers of the report to the information provided in the consolidated financial statements about such uncertainty, or if this information is not provided or is not relevant, he issues a certification with reservations or a refusal to certify;
- he assesses the overall presentation of the consolidated financial statements and assesses whether they reflect underlying operations and events so as a give a true view;
- concerning the financial information of the persons or entities included in the consolidation scope, he collects the information considered sufficient and appropriate to express an opinion on the consolidated financial statements. He is responsible for the management, supervision and performance of the audit of the consolidated financial statements as well as the opinion expressed thereafter.

Report to the Audit Committee

We submit a report to the Audit Committee that presents, in particular, the scope of the audit and the work schedule implemented as well as the conclusions of our audit. Our audit also informs the Audit Committee of any material weaknesses of internal control that we have identified with respect to the procedures relating to the preparation and treatment of accounting and financial information.

The points mentioned in the report to the Audit Committee include the risks of material misstatements that we consider to have been the most significant for the audit of the year's consolidated financial statements, which therefore constitute the key points of the audit and which it is our duty to describe in this report.

We also submit to the Audit Committee the declaration provided in article 6 of EU regulation No. 537-2014 confirming our independence, as defined in rules applicable in France as set out in articles L.822-10 to L.822-14 of the French Commercial Code and in the statutory auditors professional Code of Ethics. If necessary, we will meet the Audit Committee to discuss the risks that threaten our independence and the safeguard measures applied.

Lyon, February 27, 2019
The Statutory Auditors

GRANT THORNTON,
French member of Grant Thornton International,
Françoise Méchin

ERNST & YOUNG et Autres,
Nicolas Perlier

6.2 Parent company financial statements

6.2.1 Parent company financial statements of bioMérieux SA for the years ended December 31, 2017 and 2018

Balance sheet

Assets

In millions of euros	Notes	Net Dec 31, 2018	Net Dec. 31, 2017
Fixed assets			
• Intangible assets	3.1	191.7	190.3
• Property, plant and equipment	3.2	247.8	231.6
• Investments and related receivables	3.3	731.4	491.9
• Other non-current financial assets	3.3	10.3	2.6
TOTAL		**1,181.2**	**916.4**
Current assets			
• Inventories and work-in progress	4	161.5	148.0
• Trade receivables	5	360.4	320.6
• Other operating receivables	5	32.8	37.4
• Non-operating receivables		31.1	50.6
• Cash and cash pooling	6	225.8	432.7
TOTAL		**811.6**	**989.2**
Deferred charges spread over several years		0.6	0.7
Bond redemption premiums		0.6	0.9
Unrealised foreign exchange losses	7	4.3	3.9
TOTAL ASSETS		**1,998.3**	**1,911.1**

Shareholders' equity and liabilities

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017
Equity			
• Share capital		12.0	12.0
• Additional paid-in capital		63.5	63.5
• Reserves		843.9	774.9
• Statutory provisions and grants		60.0	59.0
• Net income for the year		75.1	109.2
TOTAL	**8**	**1,054.5**	**1,018.6**
Impairment	**9**	**63.1**	**62.2**
Liabilities			
• Borrowings and debt	10	548.9	514.4
• Trade payables	11	163.9	159.9
• Other operating payables	11	144.4	134.6
• Non-operating payables		22.8	20.7
TOTAL		**880.0**	**829.6**
Unrealised foreign exchange gains	7	0.7	0.7
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		**1,998.3**	**1,911.1**

Consolidated income statement

In millions of euros	2018	2017
Sales of goods and finished products	1,008.1	982.3
Other income	180.7	155.3
SALES	**1,188.8**	**1,137.6**
Production included in inventories (work-in-progress and finished products)	(2.8)	6.1
Capitalised production	7.8	9.4
TOTAL PRODUCTION	**1,193.8**	**1,153.1**
Purchases	(445.9)	(413.9)
Change in raw material and instrument inventories	16.5	2.4
External charges	(275.5)	(260.6)
ADDED VALUE	**488.9**	**481.0**
Taxes other than income tax	(21.6)	(20.3)
Payroll and benefits	(313.5)	(288.0)
GROSS OPERATING INCOME	**153.8**	**172.7**
Depreciation, amortisation and provisions	(50.7)	(57.9)
Other operating income (expense)	(44.9)	(45.1)
OPERATING INCOME	**58.2**	**69.7**
Net financial expense	(4.2)	25.8
Net investment income	16.8	16.3
NET INCOME BEFORE NON-RECURRING ITEMS AND TAX	**70.8**	**111.8**
Non-recurring income	3.7	(4.9)
Income tax	0.6	2.3
NET INCOME	**75.1**	**109.2**
BASIC EARNINGS PER SHARE	**0.64**	**0.92**

Basic earnings per share is calculated by dividing net income by the weighted average number of shares outstanding during the period (excluding shares intended for allocation under free share grants and treasury shares held for market-making purposes).

Diluted (net) earnings per share are calculated from the number of shares defined in the basic earnings increased by the weighted average number of potential shares to be issued and which would have a dilutive effect on net income. They stood at 0.63 for 2018 and 0.92 for 2017.

6.2.2 Notes

Note 1 Summary of significant accounting principles

The financial statements have been prepared in accordance with regulation No. 2015-06 and No. 2016-07 of the French accounting standards authority (Autorité des normes comptables – ANC).

The Company prepares consolidated financial statements which include the annual financial statements of its subsidiaries based on the full consolidation method whenever bioMérieux has effective control over those subsidiaries, or based on the equity method when the Company exercises significant influence over the entities concerned.

The Company's financial statements are fully consolidated in the financial statements of Compagnie Mérieux Alliance (17 rue Bourgelat, 69002, Lyon, France).

Note 2 Significant events of the financial year

2.1 Capital increase of ABG Stella

bioMérieux SA subscribed to the capital increase of ABG Stella in 2018 for €342 million (US$400 million).

2.2 Capital increase of bioMérieux China

The Company also subscribed to the capital increase of bioMérieux China in September 2018 for an amount of €23.5 million (US$27.5 million) to enable bioMérieux China to increase its share capital in bioMérieux Shanghai to participate in the financing of the acquisition of Hybiome.

2.3 Significant subsequent events

There was no significant subsequent event.

Note 3 Fixed assets

3.1 Intangible assets

3.1.1 Accounting principles

In accordance with regulation ANC No. 2015-06, technical merger losses were assigned to specific fixed asset accounts in January 2016 relating to acquired goodwill such as intangible business assets, technology and customer relations.

Historical goodwill and assets originating from the assignment of technical elements merger losses do not constitute stand-alone individual items that can generate their own cash flow. They are intrinsically attached to plants, to the R&D effort that supports the acquired range, to technology and the sales forces that contribute to distributing the product ranges across the Group's entire distribution channels.

Acquired goodwill is therefore grouped together with the other assets of the technological range to which they are linked in order to constitute a homogeneous and stand-alone range. In practice, tests are performed to group together assets that serve the same client typology (industrial microbiology laboratories) or health issue (pathology/detection of disease-causing organisms: microbiology, molecular biology or immunoassays). An impairment test is carried out systematically from asset groups close to the groups identified at Group level (CGU) when their analysis reveals their fungibility (monitoring and pooled management of acquired goodwill by technological range and customer typology).

At each year-end, the net value of the asset groups thus identified is compared with the current value of assets determined from discounted net cash generated by these assets (including acquired goodwill). An impairment is recorded if a loss of value is observed.

Intangible assets also include software applications acquired or developed in-house, amortised over periods of three to ten years based on their estimated useful lives, and patents and licences amortised over the contractual or statutory term of use. In practice, a period of five years is usually applied. These assets are measured at cost (purchase price and incidental costs) or at their production cost.

Lastly, intangible assets acquired in exchange for the payment of indexed royalties are measured at the time of acquisition on the basis of estimated future royalties to be paid over the term of the contract. These estimates are subsequently adjusted based on royalties effectively paid.

3.1.2 Change

Breakdown *In millions of euros*	Gross value	Accumulated depreciation and impairment	Carrying amount Dec. 31, 2018	Net value 12/31/2017
R&D expenses	17.2	16.1	1.1	2.0
Software	82.7	64.1	18.6	17.5
Goodwill and intangible business assets	142.4[(a)]		142.4	143.2
Assets under construction	13.1[(b)]		13.1	6.4
Other	53.8[(c)]	37.3[(d)]	16.5	21.2
Total	**309.2**	**117.5**	**191.7**	**190.3**

(a) Including acquired goodwill linked to the assignment of merger losses: €130.4 million.
(b) Including the distribution rights of Suzhou Hybiome Biomedical Engineering Co. Ltd: €7.5 million.
(c) Including technologies and customer relationships following the assignment of merger losses: €35.7 million.
(d) Including amortisation of the technologies and customer relations linked to the assignment of merger losses: €19.4 million.

Change *In millions of euros*	Gross value	Depreciation and impairment	Net value
December 31, 2017	**313.0**	**122.7**	**190.3**
Acquisitions/Increases	19.2	14.7	4.5
Disposals/Decreases	(23.0)	(19.9)	(3.1)
December 31, 2018	**309.2**	**117.5**	**191.7**

The increase in the gross value of intangible assets over the year primarily corresponds to the software acquired and the development cost of IT solutions for €11.4 million as well as the acquisition of the international distribution rights of the products of Suzhou Hybiome Biomedical Engineering Co. Ltd for €7.5 million (RMB 60 million).

The decrease in the gross value of intangible assets over the year primarily corresponds to scrapped patents, royalties and brands for €17.9 million, including €12.9 million related to expired patents and to disposals of software and development costs for IT solutions for €3.5 million.

The increase in amortisation and impairment during the financial year results from the amortisation of software for €8 million, merger losses for €4.6 million and amortisation and impairment of research & development expenses previously capitalised by AES Chemunex for €1.8 million. These research & development expenses are being amortised over a period of five years.

Technical merger losses are allocated as follows:

In millions of euros	Gross value	Accumulated depreciation	Carrying amount
AES Chemunex			
Goodwill	111.0		111.0
Technology	12.5	7.0	5.5
Customer relationships	5.4	2.2	3.2
Total	**128.9**	**9.2**	**119.7**
Argene			
Goodwill	19.4		19.4
Technology	12.8	6.8	6.0
Total	**32.2**	**6.8**	**25.4**
CEERAM			
Technology	2.4	0.8	1.6
Total	**2.4**	**0.8**	**1.6**
Advencis			
Technology	2.6	2.6	
Total	**2.6**	**2.6**	
Total	**166.1**	**19.4**	**146.7**

3.2 Property, plant and equipment

3.2.1 Accounting principles

Property, plant and equipment are shown on the balance sheet at purchase or production cost.

In accordance with rules concerning the recognition of assets in effect since January 1, 2005, components are separately recognised and depreciated whenever their cost represents a significant portion of the total cost of the asset to which they relate and their useful life is not the same as that of the main asset.

The only property, plant and equipment assets to which this method is applied are buildings.

For buildings, the depreciation periods are adapted to each group of components:

Depreciation period	Accounting	Tax
Shell	30-40 years	Straight line basis 30 years
Finishing work, fixtures and fittings	10-20 years	Straight line basis 15 years

The depreciation is calculated using the straight-line method over the estimated useful lives of the various asset categories. The main durations used are:

Depreciation period	Accounting	Tax
Machinery and equipment	3-10 years	Degressive 5-10 years
Instruments*	3-10 years	Degressive 3-5 years

*Instruments either installed at third-party sites or used in-house

The useful lives of items of property, plant and equipment are reviewed periodically. In 2018, this review led the Company to extend the depreciation periods on some instruments from durations of between three and ten years to durations of between five and ten years. The impact of this change is a reduction in the depreciation expense for instruments of around €1.9 million.

Impairment tests are carried out for property, plant and equipment whenever events or market developments indicate that an asset may have declined in value. If the carrying amount exceeds the recoverable amount, an impairment loss is recognised to reduce the assets to their realisable value.

Most capitalised instruments are installed at customers' sites.

3.2.2 Change

BREAKDOWN *In millions of euros*	Gross value	Accumulated depreciation and impairment	Carrying amount Dec 31, 2018	Net value Dec 31, 2017
Land and land improvements	18.8	0.9	17.9	17.8
Buildings	255.4	156.6	98.8	98.8
Machinery and equipment	211.2	153.1	58.1	58.0
Capitalised instruments	49.6	33.3	16.3	13.5
Other assets	44.9	33.8	11.1	11.1
Fixed assets in progress	45.6		45.6	32.3
Total	**625.5**	**377.7**	**247.8**	**231.6**

Change *In millions of euros*	Gross value	Depreciation and impairment	Net value
December 31, 2017	**582.8**	**351.2**	**231.6**
Acquisitions/Increases	49.9	33.4	16.5
Disposals/Decreases	(7.2)	(6.9)	(0.3)
December 31, 2018	**625.5**	**377.7**	**247.8**

The main investments for the financial year concern the construction, equipment and fixtures and fittings for the Campus de Craponne for €11 million.

3.3 Financial assets

3.3.1 Accounting principles

Non-current financial assets are recognised at their purchase price.

An impairment loss is recognised against investments whenever their value in use falls below their acquisition cost. Value in use is initially estimated taking into account the net carrying amount of the subsidiary's assets at the reporting date. This may be adjusted to reflect the value of any unrecognised identifiable assets (particularly real estate or technologies). Depending on the economic and financial situation of the subsidiary, value in use may also be estimated taking account of sales, borrowings and any associated technological assets and real estate. Given the specific nature of certain investments, in some cases value in use may be measured by estimating the enterprise value based on discounted future cash flows or on observable market financial inputs.

Non-controlling interests held in unlisted companies are measured based on various criteria including the economic outlook, the net equity of the investment or the valuation used based on recent investments in these shares.

Other investments are written down whenever their market value falls below cost. The market value of listed securities corresponds to the average trading price during the last month of the year.

Other non-current financial assets include treasury shares purchased under a liquidity agreement entered into with an investment firm for the specific purpose of maintaining an orderly market in the Company's shares. Own shares held are measured at their average trading price during the last month of the year.

3.3.2 Change

Breakdown *In millions of euros*	Gross value	Depreciation and impairment	Carrying amount Dec. 31, 2018	Carrying amount Dec. 31, 2017
Investments	715.1	94.1	621.0	258.6
Other financial assets	19.9	11.6	8.3	1.8
Related receivables	110.4		110.4	233.3
Other	2.1	0.1	2.0	0.8
Total	**847.5**	**105.8**	**741.7**	**494.5**

Change *In millions of euros*	Gross value	Depreciation and impairment	Net value
December 31, 2017	**591.3**	**96.8**	**494.5**
Acquisitions/Increases	384.2	13.0	371.2
Disposals/Decreases	(128.0)	(4.0)	(124.0)
December 31, 2018	**847.5**	**105.8**	**741.7**

During the 2018 financial year, bioMérieux SA subscribed to the capital increases of three subsidiaries: ABG Stella for €342 million (US$400 million), bioMérieux China for €23.5 million (US$27.5 million) and bioMérieux Brazil for €3 million (BRL 13.5 million).

In 2018, bioMérieux SA acquired stakes in the capital of Sino French Innovation Fund II and Innovaprep of €5 million and €0.4 million respectively. The Company also subscribed to a convertible bond issued by Banyan Biomarkers Inc. for €0.5 million. bioMérieux SA already holds a 19.7% stake in this company.

The subsidiary bioMérieux Kenya Limited was created in January 2018. At December 31, 2018, the capital of €0.1 million had not yet been paid.

The Company also contributed its GENEURO shares, recorded at a value of €0.1 million in the financial statements, to GNEH for an amount of €4.2 million, receiving GNEH shares of equal value in return. Capital gains of €4.1 million were thus generated during the year (see Note 17).

In 2017, bioMérieux SA had granted the Indian subsidiary RAS a loan of 570 million Indian rupees (€8.1 million). In 2018, this loan incurred an additional drawdown of €110 million Indian rupees (€1.4 million). The loan is repayable at par in 2028.

In 2015, the Company had granted a credit line to its subsidiary BioFire Diagnostics to finance the construction of its new industrial and administrative site in Salt Lake City, for a maximum amount of US$95 million. A repayment of US$85.7 million (€72.3 million) took place during the financial year. At December 31, 2018, the loan had been fully repaid.

The drops in securities and related receivables in 2018 also take into account the repayment of the loan granted to the subsidiary bioMérieux Inc. for an amount of US$67.1 million (or €49.2 million).

At end December 2018, the balance of this loan stood at US$134.3 million (€98.3 million).

The increase in the impairment of non-current financial assets corresponds primarily to impairments recognised on the securities of bioMérieux distribution subsidiaries.

3.3.3 List of subsidiaries and investments

See table below.

	Share capital		Equity other than than share capital	Share of ownership in %	Carrying amount of shares held before impairment losses	Carrying amount of shares held after impairment losses	Loans and advances granted by the Company and not repaid	Sales total of last financial year	Net profit or net loss of last financial year	Dividends received by the Company during the financial year	Notes
	(Currencies in millions)		*(Currencies in millions)*		*(In millions of euros)*	*(In millions of euros)*	*(In millions of euros)*	*(Currencies in millions)*	*(Currencies in millions)*	*(In millions of euros)*	
A - SUBSIDIARIES (up to 5% owned by bioMérieux)											
AB bioMérieux	SEK	0.2	95.7	100.0%	74.2	12.0	0.0	0.0	49.3	0.5	1/1/2018-12/31/18
ABG Stella	USD	0.0	860.8	100.0%	397.5	397.5	0.0	0.0	0.0	0.2	1/1/2018-12/31/18
bioMérieux West Africa	CFA	50.0	188.1	100.0%	0.1	0.1	0.0	0.0	15.9	0.0	1/1/2018-12/31/18
bioMérieux Germany	EUR	3.5	17.3	100.0%	3.8	3.8	9.0	106.4	1.0	0.0	1/1/2018-12/31/18
bioMérieux Algeria	DZD	58.0	35.4	100.0%	0.6	0.6	0.0	25.1	9.2	0.0	1/1/2018-12/31/18
bioMérieux Argentina	ARS	6.1	71.2	99.1%	5.4	1.5	0.0	478.8	20.0	0.0	1/1/2018-12/31/18
bioMérieux Austria	EUR	0.1	1.3	100.0%	0.1	0.1	0.0	16.5	0.7	1.0	1/1/2018-12/31/18
bioMérieux Colombia	COP	0.5	21.5	100.0%	2.2	2.2	0.0	71.2	4.8	0.9	1/1/2018-12/31/18
bioMérieux Brazil	BRL	136.8	(89.1)	100.0%	49.7	23.9	0.0	147.8	(25.6)	0.0	1/1/2018-12/31/18
bioMérieux Belgium	EUR	0.3	2.8	100.0%	0.3	0.3	0.0	28.3	0.7	2.0	1/1/2018-12/31/18
bioMérieux Bénelux BV	EUR	0.0	8.4	100.0%	0.1	0.1	0.0	107.6	1.3	0.0	1/1/2018-12/31/18
bioMérieux Chile	CLP	1,686.6	4,652.0	100.0%	3.1	3.1	0.0	17,350.6	496.6	0.2	1/1/2018-12/31/18
bioMérieux China	HKD	408.9	147.7	100.0%	48.1	48.1	3.3	222.1	3.4	0.0	1/1/2018-12/31/18
bioMérieux Korea	KRW	1,000.0	10,069.9	100.0%	0.7	0.7	0.0	54,516.4	1,691.0	2.3	1/1/2018-12/31/18
bioMérieux Denmark	DKK	0.5	8.3	100.0%	0.5	0.5	2.6	59.3	3.0	0.2	1/1/2018-12/31/18
bioMérieux Spain	EUR	0.2	30.5	100.0%	0.6	0.6	0.0	82.5	4.7	0.0	1/1/2018-12/31/18
bioMérieux Finland	EUR	0.0	0.6	100.0%	0.1	0.1	0.0	7.3	0.1	0.1	1/1/2018-12/31/18
bioMérieux Greece	EUR	2.0	4.5	100.0%	4.1	4.1	0.0	12.5	0.8	0.5	1/1/2018-12/31/18
bioMérieux Hungary	HUF	3.0	301.3	100.0%	0.0	0.0	0.6	1,814.3	150.0	0.2	1/1/2018-12/31/18
bioMérieux HK Investment LTD	HKD	68.8	11.8	100.0%	6.1	6.1	0.0	0.0	0.9	0.0	1/1/2018-12/31/18
bioMérieux India	INR	66.0	1,308.8	99.9%	2.9	2.9	0.0	4,750.1	174.9	0.0	1/1/2018-12/31/18
bioMérieux Italy	EUR	9.0	33.0	100.0%	12.8	12.8	0.0	125.1	5.3	3.0	1/1/2018-12/31/18
bioMérieux Japan	JPY	0.5	0.5	100.0%	15.4	15.4	0.0	6.0	0.2	0.0	1/1/2018-12/31/18
bioMérieux Kenya	KES	18.3	0.8	100.0%	0.1	0.1	0.0	0.0	0.8	0.0	Subsidiary created 1/2018
bioMérieux Malaysia	MYR	0.1	0.2	100.0%	0.0	0.0	0.1	0.0	0.1	0.0	1/1/2018-12/31/18
bioMérieux Middle East	AED	0.1	1.2	100.0%	0.0	0.0	0.9	0.0	0.3	0.0	1/1/2018-12/31/18
bioMérieux Norway	NOK	2.8	3.7	100.0%	0.3	0.3	0.0	45.6	3.6	0.1	1/1/2018-12/31/18
bioMérieux Poland	PLN	0.4	26.2	100.0%	1.5	1.5	0.0	109.5	7.0	3.1	1/1/2018-12/31/18
bioMérieux Portugal	EUR	1.6	6.2	100.0%	2.0	2.0	0.0	17.3	0.1	0.0	1/1/2018-12/31/18
bioMérieux Czech Republic	CZK	0.2	13.7	100.0%	0.0	0.0	1.8	855.6	3.9	0.0	1/1/2018-12/31/18
bioMérieux Russia	RUB	55.7	169.6	100.0%	1.3	1.3	0.0	1,175.6	50.7	0.3	1/1/2018-12/31/18
bioMérieux South Africa	ZAR	50.0	69.7	100.0%	5.4	5.4	0.0	366.5	27.3	0.7	1/1/2018-12/31/18
bioMérieux Sweden	SEK	0.5	11.4	100.0%	0.2	0.2	0.0	221.5	5.8	0.4	1/1/2018-12/31/18
bioMérieux Switzerland	CHF	0.4	3.5	100.0%	0.6	0.6	0.0	35.8	2.2	1.8	1/1/2018-12/31/18

	Share capital		Equity other than than share capital	Share of ownership in %	Carrying amount of shares held before impairment losses	Carrying amount of shares held after impairment losses	Loans and advances granted by the Company and not repaid	Sales total of last financial year	Net profit or net loss of last financial year	Dividends received by the Company during the financial year	Notes
	(Currencies in millions)		*(Currencies in millions)*		*(In millions of euros)*	*(In millions of euros)*	*(In millions of euros)*	*(Currencies in millions)*	*(Currencies in millions)*	*(In millions of euros)*	
bioMérieux Thailand	THB	35.0	56.0	100.0%	0.9	0.9	0.0	467.5	15.1	0.2	1/1/2018-12/31/18
bioMérieux Turkey	TRY	3.3	62.9	100.0%	2.7	2.7	0.0	117.8	10.7	0.0	1/1/2018-12/31/18
bioMérieux UK	GBP	0.0	12.5	100.0%	1.2	1.2	0.0	56.1	5.1	2.2	1/1/2018-12/31/18
bioMérieux Vietnam	VND	6.3	1.6	100.0%	0.2	0.2	0.0	0.0	0.6	0.0	1/1/2018-12/31/18
bioMérieux Serbia	RSD	1.2	10.3	100.0%	0.0	0.0	0.0	0.0	2.1	0.0	1/1/2018-12/31/18
bioMérieux Singapore	SGD	0.1	4.0	100.0%	0.1	0.1	1.4	12.1	0.5	0.0	1/1/2018-12/31/18
AES Canada	CAD	0.0	-0.1	100.0%	0.0	0.0	0.5	0.4	(0.3)	0.0	1/1/2018-12/31/18
BTF	AUD	4.1	13.5	100.0%	13.6	13.6	0.0	26.3	10.6	4.9	1/1/2018-12/31/18
Quercus Scientific NV	EUR	3.9	4.4	100.0%	19.9	19.9	0.0	0.0	0.0	0.5	1/1/2018-12/31/18
Total subsidiaries					**678.6**	**586.7**					
B - INVESTMENTS (5%-50% owned by bioMérieux)											
GNEH	EUR	0.0	0.0	18.9%	4.2	3.2	0.0	0.0	0.0	0.0	Company created in 2018
Banyan Biomarkers Inc.	USD	6.1	0.0	19.4%	6.4	6.4	0.0	4.8	(4.8)	0.0	7/1/2017-6/30/18
Knome Tafkak	USD	31.3	(31.2)	0.0%	7.3	0.0	0.0	0.0	0.0	0.0	1/17-12/17 Unaudited
Labtech system LTD	AUD	30.9	(1.7)	4.9%	1.3	0.5	0.0	6.0	(2.7)	0.0	7/1/2017-6/30/18
Lumed Inc.	CAD	0.8	(0.7)	9.8%	0.3	0.3	0.0	0.2	(0.4)	0.0	2/17-1/18 Unaudited
Mérieux Université	EUR	1.7	(1.0)	40.0%	1.6	0.4	0.0	0.0	0.4	0.0	1/1/2018-12/31/18
Quanterix	USD	0.0	65.9	9.3%	17.9	17.9	0.0	22.9	(27.0)	0.0	1/1/2017-12/31/17
Qvella	CAD	54.8	(20.6)	5.8%	6.0	6.0	0.0	0.3	(3.9)	0.0	1/1/2017-12/31/17
Total equity investments					**45.0**	**34.8**					
C – OTHER SECURITIES											
Amorçage Technologique Investissement	EUR	30.5	(8.8)	2.5%	0.8	0.8	0.0	0.0	(1.1)	0.0	1/1/2017-12/31/17
Avesthagen	INR	76.1	(1,042.4)	3.5%	1.4	0.0	0.0	0.8	(1.3)	0.0	4/1/2017-3/31/18
Dynavax	USD	1.2	198.4	0.0%	0.7	0.1	0.0	0.3	(95.2)	0.0	1/1/2017-12/31/17
Innovaprep	USD	0.0	0.0	3.5%	0.4	0.4	0.0	0.0	0.0	0.0	Company created in 2018
LyonBiopôle	EUR	1.0	(1.1)	0.0%	0.3	0.0	0.0	1.2	0.0	0.0	1/1/2017-12/31/17
My Cartis	EUR	29.6	(20.4)	1.6%	1.2	0.0	0.0	0.6	(9.2)	0.0	1/1/2017-12/31/17
Sino French (Innovations) Fund II	EUR	0.0	0.0	3.3%	5.0	5.0	0.0	0.0	0.0	0.0	Company created in 2018
Supernova 2	EUR	7.4	(0.9)	1.3%	1.0	1.0	0.0	0.0	(0.9)	0.0	6/21/2017-12/31/17
Théra conseil	EUR	0.5	0.3	0.8%	0.0	0.0	0.0	5.3	0.2	0.0	1/1/2017-12/31/17
Total other securities					**10.8**	**7.3**					
GRAND TOTAL					**734.5**	**628.8**					

Note 4 Inventories

4.1 Accounting principles

Inventories are measured at the lower of cost and net realisable value.

Inventories of raw materials, consumables and goods for resale are measured at their purchase price plus related expenses using the FIFO method. Work-in-progress and finished products are measured at their actual production cost.

Inventories are written down where necessary, taking into account selling prices, obsolescence, residual shelf life, product condition, sale prospects and, in the case of spare parts, changes in the corresponding instruments' installed base.

4.2 Change

Inventories *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Raw materials	39.9	35.2
Work-in-progress	26.9	27.2
Finished products and goods held for resale	104.8	95.5
Total gross value	**171.6**[(a)]	**157.9**
Impairment losses	(10.1)	(9.9)
Total carrying amount	**161.5**	**148.0**

(a) Including gross value of instruments and the related spare parts: 23.7% compared to 27.9% in 2017.

Note 5 Trade and operating receivables

5.1 Accounting principles

Receivables are recognised at face value. An impairment loss is recognised when the receivables present a risk of non-recovery.

5.2 Change

Trade receivables *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Gross trade receivables	367.4	325.2
Impairment losses	(7.0)	(4.6)
Carrying amount	**360.4**	**320.6**

Other operating receivables *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Advances and downpayments	8.5	8.5
Prepaid expenses	4.5[(a)]	6.2
Other operating receivables	19.8[(b)]	22.7
Total gross value	**32.8**	**37.4**

(a) Prepaid expenses primarily consist of purchases of external charges.
(b) Including a VAT receivable for €13.5 million.

Maturities of trade and other receivables *Carrying amount in millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Trade receivables	**360.4**	**320.5**
Due in less than one year	360.4	320.3
Due in more than one year		0.2
Other operating receivables	**32.8**	**37.4**
Due in less than one year	32.6	35.9
Due in more than one year	0.2	1.4

Note 6 Cash at bank and in hand

6.1 Accounting principles

Cash and cash equivalents include available cash and short-term investments.

Changes in the cash pool are valued at the average monthly exchange rate. Cash pooling accounts are remeasured at the end of the month at the closing rate. This remeasurement is offset by an entry to financial income and expenses taking into account currency hedges related to these positions.

6.2 Change

Cash at bank and in hand *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Short-term investments	53.9	83.2
Cash pooling	43.6	219.7
Cash at bank and in hand, and financial instruments	128.3	129.8
TOTAL	**225.8**	**432.7**

Short-term investments break down as follows:

	Dec. 31, 2018	Dec. 31, 2017
Investment	Treasury shares	Treasury shares
Amount	€31.3 million	€10.6 million
Classification	Equities	Equities
ISIN Code	FR0010096479	FR0010096479
Investment	BNP Paribas Deposit money-market fund	BNP Paribas Deposit money-market fund
Net amount	€17.6 million	€55.6 million
Classification	Euro money-market fund	Euro money-market fund
ISIN Code	FR0011046085	FR0011046085
Investment	Time-deposit account	Time-deposit account
Amount	€5.0 million	€5.0 million
Classification	Euro money-market fund	Euro money-market fund
ISIN Code		
Investment	AMUNDI TRESO EONIA money-market fund	AMUNDI TRESO EONIA money-market fund
Amount	€0.00 million	€12.0 million
Classification	Euro money-market fund	Euro money-market fund
ISIN Code	FR0007435920	FR0007435920

Among short-term investments are 542,287 shares purchased within the framework of the establishment of a hedging program intended to ensure the cost of the various share grant plans.

Note 7 Translation adjustments

7.1 Accounting principles

In application of regulation ANC 2015-05, income and expenses in foreign currencies are recognised at their value in euros on the transaction date based on the average monthly exchange rate. Foreign exchange gains or losses on commercial transactions resulting from differences in rates between the transaction date and payment date are recognised under the corresponding line in the income statement (sales and purchases).

Receivables and payables in foreign currencies are converted based on their exchange rate on the closing date of the financial year. Any differences resulting from this valuation are recognised under unrealised foreign exchange gains and losses. Provisions are set aside for unrealised foreign exchange losses and are recognised in income (sales and purchases) whenever the receivable or payable is related to a commercial transaction.

When, for business transactions with relatively close maturities, unrealised foreign exchange gains and losses may be considered as contributing to an overall position, the amount of the allowance for exchange rate risks is capped at the excess of losses over gains. This estimate of losses takes into account, if applicable, the hedging rate linked to the derivative instruments related to these transactions.

Foreign exchange gains and losses concerning financial flows are recorded under financial income and expenses. Translations adjustments concerning cash pooling are recognised as income as well as hedging instruments symmetrically to the hedged item.

7.2 Unrealised foreign exchange losses

In millions of euros	Dec 31, 2018	Dec 31, 2017
On operating items	3.3	2.8
On borrowings and financial receivables	1.0	1.1
Total	**4.3**	**3.9**

Unrealised gains on currency hedges are recorded as at December 31, 2018 for an amount of €0.1 million, as a deduction from unrealised losses on sales flows, compared to €1.2 million as at December 31, 2017.

7.3 Unrealised foreign exchange gains

In millions of euros	Dec 31, 2018	Dec 31, 2017
On operating items	0.7	0.7
Total	**0.7**	**0.7**

Note 8 Equity and share grant plans

8.1 Accounting principles

Investment grants are recognised in equity. The Company has elected to spread an investment grant financing an amortisable fixed asset over several periods. The investment grant is reversed over the same period based on the same pattern as the value of the asset acquired or created as a result of the grant.

Share grant plans

Shares were acquired as part of a hedging plan, without specific allocation to a plan.

8.2 Change in shareholders' equity

The Company's share capital amounted to €12,029,370 at December 31, 2018 and was divided into 118,361,220 shares with a total of 195,851,895 voting rights (of which 78,060,118 shares carrying double voting rights). Following a decision taken by the General Meeting of March 19, 2001, the Company's bylaws no longer refer to a par value for its shares. No rights or securities with a dilutive impact on capital were outstanding at December 31, 2018.

At December 31, 2018, the Company held:

- 27,156 treasury shares under a liquidity agreement with an independent investment service provider. During 2018, the Company purchased 740,394 and sold 718,155 of its own shares;
- 542,287 treasury shares were purchased as part of a hedging programme for the various share grant plans. During 2018, the Company purchased 370,000 shares and awarded 15,000 and delivered 41,870 shares under the 2016 and 2017 OPUS plans.

Change in shareholders' equity *In millions of euro*	Share capital	Additional paid-in capital	Reserves & Retained Earnings	Regulated provisions	Grants	Total
Equity at december 31, 2017	**12.0**	**63.5**	**884.1**	**58.9**	**0.1**	**1,018.6**
Attributable net income for the period			75.1			75.1
Dividends paid			(40.2)			(40.2)
Changes in statutory provisions				1.0		1.0
Equity at december 31, 2018	**12.0**	**63.5**	**919.0**	**59.9**	**0.1**	**1,054.5**

The following table presents the Company's share grant plans:

	Year in which plan opened				
Number of shares	2014	2015	2016	2017	2018
Initial number of options granted	15,000	53,100	402,300	40,116	169,685
Forfeited shares		4,500	25,200	502	
Number of shares remitted in 2018	15,000				
Number of shares to be remitted as of Dec. 31, 2017		48,600	377,100	39,614	169,685

The number of shares for plans prior to 2017 were tripled after the three-for-one split decided by the Combined General Meeting of June 2017.

Between 2014 and 2018, the Board of Directors granted free shares (out of existing shares) to certain employees and corporate officers, subject to presence and performance conditions, as applicable.

Under the terms of the different plans, the free shares are subject to a vesting period of three or four years.

Furthermore, the vesting of performance shares is contingent on the achievement of objectives based on operating income, the generation of free cash flow, or on the achievement of specific objectives. The performance shares are no longer subject to a lock-up period if the vesting period is at least two years. The lock-up period may be waived for shares granted to non-French tax residents provided that the shares concerned are subject to a four-year vesting period.

In 2018, after taking into account the rebilling of free shares, a net expense of €8.8 million was recognised as operating income (compared to a net expense of €15.2 million the previous year), particularly as a result of the over 23% drop in the December average price of bioMérieux shares used in estimating the provision.

In view of the 542,287 treasury shares held at December 31, 2018 to hedge the free share grant plans, the Company will have to buy back 92,712 additional shares for €5.3 million based on the price at December 31, 2018.

8.3 Changes in statutory provisions

Statutory provisions *In millions of euros*	Accelerated amortisation	Provisions for price increases	Total
December 31, 2017	**57.5**	**1.4**	**58.9**
Additions	12.1	0.7	12.8
Reversals	(11.6)	(0.2)	(11.8)
December 31, 2018	**58.0**	**1.9**	**59.9**

Note 9 Provisions for contingencies and losses

9.1 Accounting principles

Contingency and loss provisions are recognised in accordance with French accounting rules applicable to liabilities (C.R.C. 2000-06).

The Company is involved in a certain number of claims and litigation arising from the normal course of its business. It believes that these claims and litigation will not have a materially adverse impact on its ability to continue as a going concern. When a risk is identified, a provision is recognised as soon as it can be reliably estimated.

9.2 Change

Impairment *In millions of euros*	Other employee benefits	Product warranties[b]	Other impairment[c]	Total
December 31, 2017	**27.9**	**1.0**	**33.3**	**62.2**
Additions		*0.8*	*16.9*	*17.7*
Reversals (utilisations)	*(7.7)*	*(1.0)*	*(7.6)*	*(16.3)*
Reversals (surplus)			*(0.5)*	*(0.5)*
Net additions (reversals)	(7.7)	(0.2)	8.8	0.9
December 31, 2018	**20.2**	**0.8**	**42.1**	**63.1**

(a) Provisions for other employee benefits comprise retirement benefits, long-service awards and bonuses and mutual health insurance benefits. Reversals for the year were primarily due to the payment of €5 million made to the pension fund.
(b) Estimate of the costs relating to warranties issued on the sale of instruments in the period that may be incurred over the remaining warranty period.
(c) Including a provision for free share grants of €25.9 million, provisions for commercial claims and litigation of €6 million, a provision for unrealised foreign exchanges losses of €4.3 million, other provisions for charges of €3.7 million, and provisions covering losses on termination of sales contracts of €2 million.

9.3 Provisions for pensions and other post-employment benefits

9.3.1 Accounting principles

The Company applies ANC recommendation No. 2013-02 of November 7, 2013 and applies the principles of IAS 19 as amended in June 2011 for its statutory financial statements, with the exception of the option to recognise actuarial gains and losses in equity.

9.3.2 Change

Obligations in respect of pensions and other post-employment benefits are calculated using actuarial methods based on the following assumptions:

	Retirement benefits		Long-service awards	
	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Salary increase rate	2.0%	2.0%	1.6%	2.0%
Discount rate	2.00%	1.75%	2.00%	1.75%
Employee mobility rate[(a)]	0% to 5%	0% to 5%	0% to 5%	0% to 5%
Average duration	13	14	9	9

(a) Depending on the age and status of the employee (managerial/non-managerial grade).

At December 31, 2018, the Company recognised provisions for retirement benefits of €6.8 million, compared to €13 million at December 31, 2017. In 2018, the Company paid €5 million to the retirement benefits hedging fund. This hedging fund stood at €24.7 million at December 31, 2018.

The provision for long-service awards amounts to €13.3 million, compared to €14.8 million at December 31, 2017.

9.4 Contingent liabilities

The declared dispute with regard to the collective action of patients against bioMérieux as manufacturer of diagnostic tests for Lyme disease has not given rise to a provision for risk in the consolidated financial statements for the year ended December 31, 2017 as at this stage it is not possible to assess the risk incurred by the Company.

Note 10 Net debt

10.1 Statement of changes in net debt

The statement of changes in net debt includes all changes in borrowings and debt, regardless of maturity, net of cash and short-term bank borrowings.

It lists separately:

- cash flow relating to operating activities;
- cash flow relating to investing activities;
- cash flow relating to shareholders' equity.

Cash flow from operating activities corresponds to the aggregate of net income, depreciation and amortisation, net additions to provisions (impairment and contingencies and losses), less capital gains or losses on disposals of fixed assets.

Net debt corresponds to the Company's financial situation with regard to financing third parties outside of operating payables. This aggregate is determined by the sum of mandatory and bank debt (short, medium and long term) and bank overdrafts, less cash at bank and in hand and investment securities.

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Net income	75.1	109.2
Depreciation, amortisation and provisions, net	60.6	60.8
Gains and losses on Corporate actions	(3.0)	0.4
Merger premium/loss	(1.2)	3.7
Cash flow from operating activities	**131.5**	**174.1**
Increase in inventories	(13.7)	(8.5)
Increase of requirements in accounts receivable	(41.3)[a]	(27.3)
Change in trade payables and other operating working capital	17.6[b]	7.3
Operating working capital requirement	**(37.4)**	**(28.5)**
Change in receivables, net of tax	19.5[c]	(3.6)
Total change in working capital requirement	**(17.9)**	**(32.1)**
Net cash generated from operating activities	**113.6**	**142.1**
Capital expenditure	(69.0)	(60.6)
Disposals of fixed assets	8.6	8.5
Change in net trade payables	2.4	(4.6)
Equity acquisitions, subscriptions to capital increases	(373.0)[d]	(47.9)[e]
Net change in advances and loans to subsidiaries	123.4[f]	62.1[g]
Net change in other non-current financial assets	(7.1)	(0.1)
Net cash flow from (used in) investment activities	**(314.7)**	**(42.8)**
Dividends paid	(40.2)	(39.4)
Regulation 2015-05 – Allocation to retained earnings		0.6
Net cash used in shareholders' equity	**(40.2)**	**(38.8)**
Change in net debt (excluding exchange rate impact)	**(241.3)**	**60.4**
Breakdown of change in net debt		
Net debt at beginning of year	81.7	116.5
Net debt from the merger	(1.2)	2.9
Impact of changes in exchange rates on net debt	1.3	22.8
Change in net debt:	**241.3**	**(60.4)**
• Committed debt	21.8	(22.1)
• Cash and bank overdrafts	219.5	(38.3)
Net debt at end of year	**323.1**	**81.7**

(a) Including amounts owed by Group customers (+€24.4 million) and by export customers (+€18.3 million).
(b) Including accrued payroll and other taxes (+€11.4 million), trade payables (+€3.4 million) and other receivables and operating payables (+€3.3 million).
(c) Including repayments obtained for the research tax credit (+€14.3 million) and for the 3% tax on dividends (+€6.6 million).
(d) Including the capital increases of the subsidiaries ABG Stella (-€342 million), bioMérieux China (-€23.5 million), bioMérieux Brazil (-€3 million), and transfer value of the Geneuro shares to GNEH (-€4.2 million).
(e) Including the capital increase of bioMérieux Brazil (-€22.7 million), purchase of bioMérieux Japan shares (-€11.5 million), equity participation in Banyan Biomarkers (-€6.4 million) and Qvella (-€6 million).
(f) Including the repayment of the BioFire loan (+€72.3 million), the bioMérieux Inc. loan (+€49.2 million), the bioMérieux Gmbh loan (+€3.2 million) and an additional loan to bioMérieux India (-€1.4 million).
(g) Including the repayment of the bioMérieux Inc. loan (+€50.1 million), the bioMérieux Brazil loan (+€12.6 million), the BioFire loan (+€3,6 million) and an additional loan to bioMérieux India (-€8,4 million).

10.2 Debt refinancing

bioMérieux SA has a syndicated credit facility for an amount of €500 million following the renegotiation of January 2017. The initial maturity of this loan is January 22, 2022 and may be extended twice for a duration of one additional year. Two extensions were exercised in 2018, deferring the maturity date to January 2024. This credit facility did not incur any drawdowns during 2018.

The syndicated credit facility is subject to the following covenant: bioMérieux Group net debt may not exceed 3.5 times operating income before non-recurring items (EBITDA) before depreciation/amortisation and acquisition expenses. The Company complied with this covenant at December 31, 2018.

bioMérieux SA had €35 million in outstanding commercial paper at December 31, 2018 (€15 million at December 31, 2017).

In early October 2013, bioMérieux SA carried out its first bond issue, placing €300 million worth of seven-year bonds (maturing October 14, 2020) with institutional investors. The bonds pay interest at an annual rate of 2.875% and the fifth instalment was paid in October 2018 for €8.6 million. The bonds were issued with an issue premium. The expense relating to the issue premium and issue fees is being amortised over the term of the bonds.

The financial cost of half of the bond loan has been transformed into a floating rate cost through the setting up of a swap contract that matures in July 2020, and has a 0.3%floor and is capped at 1.2 until July 2018. A swap contract in the opposite direction was set up in 2017 for the period between July 2018 and July 2020.

10.3 Debt schedule

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Due beyond 5 years	5.5	
Due in 1 to 5 years	308.0[a]	311.2
Total debt beyond 1 year	**313.5**	**311.2**
Due within 1 year	235.4[b]	203.2
Total borrowings	**548.9**	**514.4**
Short-term investments	(53.9)[c]	(83.2)
Cash at bank and in hand, and financial instruments	(171.9)[d]	(349.4)
Net debt	**323.1**	**81.7**

(a) Including the €300 million bond issue.
(b) Including cash pooling for €196.8 million, compared to €136.8 million at December 31, 2017.
(c) The carrying amount of short-term investments is identical to their market value, except for treasury shares, which are carried at historical cost.
(d) Including cash pooling for €43.6 million, compared to €219.6 million at December 31, 2017.

Note 11 Trade and operating payables

Trade and other operating payables *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Trade payables	**163.9**	**159.9**
Accrued payroll and other taxes	130.3	118.9
Deferred income	3.4[a]	5.6
Other	10.8	10.1
Other operating payables	144.4	134.6

(a) Including a lease and maintenance agreement for €2.9 million and the sale of reagents and instruments for €0.4 million.

Trade and other operating payables *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Trade payables		
Due within one year	163.9	159.9
TOTAL	**163.9**	**159.9**
Other operating payables		
Due within one year	144.4	125.3
Due beyond one year		9.3
TOTAL	**144.4**	**134.6**

Note 12 Accrued expenses and income

Accrued expenses and income *In millions of euros*	Dec. 31, 2018	Dec. 31, 2017
Miscellaneous borrowings	2.5	3.0
Trade payables	52.4	72.4
Accrued payroll and other taxes	115.1	106.6
Other operating payables	8.6	7.3
Other non-operating payables	14.9[a]	10.8[b]
Total accrued expenses	**193.5**	**200.1**
TOTAL ACCRUED INCOME	**27.5[C]**	**15.8**

(a) Including €4.7 million of Sino-French Innovation Fund 2 securities balance.
(b) Including €0.9 million of ATI Supernova 2 securities balance.
(c) Including unbilled customer payables (€24.2 million compared to €11.8 million at December 31, 2017) and accrued interest on loans to subsidiaries (€2 million compared to €2.2 million at December 31, 2017).

Note 13 Sales

13.1 Accounting principles

Revenue from product sales (reagents and instruments) and related services (technical support, training, shipping costs, etc.) are recorded under revenue in the consolidated income statement.

Revenue arising from the sale of products is recognised when all of the following criteria have been satisfied:

- the significant risks and rewards of ownership have been transferred to the buyer;
- the Company no longer has a continuing involvement in the effective control over the goods sold;
- the revenue and the costs incurred or to be incurred in relation to the transaction can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Company.

These criteria are satisfied when reagents are delivered and when sold instruments are installed.

In the case of services (training, technical support, etc.), revenue is recognised only after the services have been rendered. Revenue from instrument maintenance contracts is deferred and recognised on the basis of the elapsed portion of the service contract.

Sales are measured at the fair value of the consideration received or receivable, net of any discounts and rebates granted to customers. Sales taxes and value-added taxes are not included in sales.

13.2 Change

Breakdown of sales *In millions of euros*	France	Export	Total Dec. 31, 2018	Total Dec. 31, 2017
Sales of goods for resale	14.0	114.4	128.4	130.7
Sold production (goods)	161.9	698.2	860.1	832.9
Sold production (services)	20.6	179.7	200.3	173.9
Total	**196.5**	**992.3**	**1,188.8**	**1,137.6**

Sales by geographic area *In millions of euros*	Dec 31, 2018	Dec 31, 2017
France & Dom Tom	200.8	197.6
Europe, Africa, Middle East	479.5	458.1
South America	40.4	44.8
North America	154.9	162.7
Asia-Pacific	159.8	145.5
Other related activities not broken down	153.4	128.9
Total	**1,188.8**	**1,137.6**

Note 14 Research and development expenses

Research & development expenses are expensed as incurred except for research & development programs capitalised following the merger with the companies AES Chemunex and CEERAM.

Research & development expenses at December 31, 2018 amounted to €121 million, compared to €119.2 million the previous year.

Note 15 Personnel costs and employee benefits

15.1 Accounting principles

When an expense is not considered as definitive on recognition, the expense transfer accounts are used to subsequently reclassify the expense based on the appropriate economic nature.

In 2018, income relating to the tax credits promoting competition and employment (CICE) was recorded as and when the compensation deemed eligible for inclusion in the tax base was recognised. This income is presented in operating items as a deduction from personnel costs for €4 million.

CICE tax credits in respect of compensation paid in 2017 amounted to €4.6 million. These tax credits have helped improve the Company's competitiveness, in particular through production capacity investments in France, new hires and staff training, and expenditure on occupational health and safety.

15.2 Change

Personnel costs *In millions of euros*	Dec. 31, 2018 12 months	Dec. 31, 2017 12 months
Wages and salaries	192.9	184.0
Discretionary profit-sharing	17.2	13.6
Payroll taxes	103.4	90.4
Total	**313.5**	**288.0**
AVERAGE HEADCOUNT	**3,649**	**3,554**
HEADCOUNT AT YEAR-END	**3,679**	**3,597**

In accordance with the law, no non-discretionary profit-shares could be granted to employees out of net income for 2018.

Compensation allocated to members of the administrative, management and supervisory bodies and senior management (Company directors and members of the Executive Committee who are employees of the Company) in respect of their duties in 2018 consisted of directors' fees of €0.04 million, and fixed and variable compensation of €7.8 million.

Breakdown of headcount *In FTE*	Dec. 31, 2018 12 months	Dec. 31, 2017 12 months
Average headcount		
Managers	1,790	1,703
Supervisors	63	61
Employees	27	25
Technicians	1,181	1,175
Blue-collar workers	588	591
Total	**3,649**	**3,554**
Headcount at year-end		
Managers	1,813	1,725
Supervisors	66	58
Employees	29	28
Technicians	1,177	1,188
Blue-collar workers	594	598
Total	**3,679**	**3,597**

Note 16 Net financial expenses

16.1 Accounting principles

Dividends received are recognised net of withholding taxes applicable in the country of origin.

16.2 Change

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Net finance costs	(3.6)	5.6
Impairment of investments	(9.5)[a]	(5.9)[b]
Merger premium/loss	1.2	(3.7)
Provisions for financial contingencies and losses	0.2	(0.1)
Dividends	25.3	26.0
Foreign exchange gains (losses)	(1.0)	20.2
TOTAL	**12.6**	**42.1**

(a) Including net additions relating to shares in subsidiaries for €7.7 million and €1.8 million relating to other investments.
(b) Including net additions relating to shares in subsidiaries for €5.8 million.

bioMérieux SA absorbed S.A.S. International on July 30, 2018 with retroactive tax effect to January 1, 2018. Contributions measured at their net carrying amount resulted in a merger premium of €1.2 million. The 2017 absorption of Advencis resulted in the recognition of a non-allocated merger loss of €3.7 million in net financial income.

16.3 Foreign exchange gains (losses)

Foreign exchange gains and losses result from differences between the transaction exchange rate and the settlement rate (or the year-end rate if the payment has not yet been made). These differences only partially reflect the impact of currency fluctuations.

Foreign exchange gains and losses on commercial transactions are recognised under the relevant headings in the consolidated income statement. The table below shows their income statement impact:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Operation	(7.3)	(1.9)
Financial items	(1.0)	20.2
Total	**(8.3)**	**18.3**

The Company recognised a change in accounting estimates in the financial statements for the preceding financial year for foreign exchange gains and losses, with gains of €13.7 million recognised.

Note 17 Non-recurring income

In millions of euros	Produits	Charges	Net Dec 31, 2018	Net Dec 31, 2017
Deconsolidations and disposals of fixed assets	8.6	5.7	2.9	(0.4)
Statutory provisions	11.8	12.8	(1.0)	(5.1)
Other non-recurring income and expenses	3.1	1.3	1.8	0.6
Total	**23.5**	**19.8**	**3.7**	**(4.9)**

Disposals of fixed assets take into account the €4.1 million in capital gains from the contribution of Geneuro shares to GNEH.

The company AES Chemunex GmbH was liquidated in 2018. This liquidation generated capital losses of €0.6 million in bioMérieux SA's financial statements at December 31, 2018.

Note 18 Corporate income tax

18.1 Accounting principles

The Company has opted to present CICE tax credits promoting competitiveness and employment in France as a deduction from personnel costs (see Note 15.1).

Taxes on dividends were recognised in income tax expense (see Note 18.2 concerning accrued income recognised for 2017).

18.2 Change

Since January 1, 2005, bioMérieux SA had been the head of a tax consolidation group comprising bioMérieux S.A. and S.A.S bioMérieux International (formerly Stella).

On January 1, 2018, S.A.S bioMérieux International left the tax consolidation group due to it being absorbed by bioMérieux SA on July 30, 2018, with retroactive tax effect to January 1, 2018.

At December 31, 2018, the Company recognised various tax credits totalling €24.4 million, including a research tax credit for an estimated €17.9 million. These various tax credits accumulated since 2017 represented the majority of non-operating receivables at December 31, 2018, and have a maturity of less than one year.

Following the censure by the French constitutional council of the 3% contribution on distributed income, bioMérieux SA has filed claims to obtain the reimbursement of this contribution for the financial years between 2013 and 2017. Since the outcome of this dispute is certain, bioMérieux SA recognised accrued income of €5.9 million and interest on arrears of €0.7 million at December 31, 2017. This amount was fully received in 2018.

An additional 15% contribution for companies that generate revenue in excess of €1 billion was recognised for 2017 for a total of €2.9 million. This exceptional contribution was not renewed for the 2018 financial year.

Income net of Corporate income tax totalled €0.6 million in 2018, compared to €2.3 million the previous year.

18.2.1 Breakdown of Corporate income tax

In millions of euros	Before tax	Tax[a]	Dec. 31, 2018 After tax	Dec 31, 2017
Recurring income	70.8	0.1	70.9	106.6
Non-recurring income	3.7		3.7	(2.1)
Prior-year tax adjustment and other		0.5	0.5	4.8
Net income for the year	**74.5**	**0.6**	**75.1**	**109.2**

(a) CICE tax credits for €4 million are recognised in personnel costs and not in income tax.

18.2.2 Net income for the year excluding valuation allowances

In millions of euros	Dec. 31, 2018	12/31/2017
Net income for the year	75.1	109.2
Income tax	0.6	2.3
Net income before tax	**74.5**	**106.9**
Accelerated depreciation, amortisation and statutory provisions	(1.0)	(5.1)
Total valuation allowances	**(1.0)**	**(5.1)**
Net income before tax and excluding valuation allowances	**75.5**	**112.0**
Income tax	0.6	2.3
Income tax on valuation allowances at 34.43% in 2018 and 39.43% in 2017	0.3	2.0
Net tax benefit (expense)	**0.3**	**0.3**
Net income for the year excluding valuation allowances	**75.8**	**112.3**

18.2.3 Change in deferred taxes

In millions of euros	Dec. 31, 2018 34.43% rate	Dec. 31, 2017 34.43% rate
Accelerated depreciation, amortisation and statutory provisions	20.6	20.3
Total deferred tax liabilities	**20.6**	**20.3**
Non-deductible provisions and expenses	(6.9)	(11.5)
Unrealised foreign exchange gains	(0.2)	(0.2)
Total deferred tax assets	**(7.1)**	**(11.8)**
TOTAL DEFERRED TAX BENEFIT OR EXPENSE	**13.5**	**8.5**

Note 19 Hedging instruments

19.1 Accounting principles

The Company only uses financial instruments for hedging purposes, in order to limit risks stemming from changes in exchange rates and interest rates, whether related to assets and liabilities at the end of the period or to future transactions.

19.2 Exchange rate risk

In view of the significant proportion of bioMérieux SA's operations conducted outside the eurozone, its sales, earnings and assets and liabilities may be impacted by changes in exchange rates between the euro and other currencies. Sales are particularly affected by euro/US dollar exchange rate variations and, more occasionally, by fluctuations in the rate of the euro against other currencies.

bioMérieux SA's current policy is to seek to hedge the impact of exchange rate fluctuations on budgeted net income. It uses hedging instruments, when they are available at a reasonable cost, in order to mitigate risks relating to currency fluctuations. Hedging contracts are purchased to cover transactions included in the budget and not for speculative purposes.

Hedges consist mainly of forward currency sales and purchases (maturing within 18 months at December 31, 31).

Hedging instruments used are backed against trade and financial receivables and payables.

Unrealised foreign exchange gains and losses on hedging instruments, related to the basis of trading prices at December 31, 2018 are recognised in the balance sheet whenever they are in a hedging relationship with receivables or payables.

Hedges in effect at December 31, 2018 were as follows:

- forward sales of €38.7 million to hedge trade receivables;
- forward sales of €10.4 million to hedge financial receivables;
- forward purchases of €155.9 million to hedge borrowings.

Furthermore, currency hedges were set up to cover the budget positions of the 2019 financial year. The net amount of these hedges is €228 million.

The market value at December 31, 2018 of all the budget hedges represents an unrealised loss of €2.1 million.

At December 31, 2018, the Company had no hedges covering the earnings of foreign subsidiaries.

The market value at December 31, 2018 of financial hedges represents an unrealised loss of €0.9 million.

The table below shows the currencies in which revenue is generated:

In millions of euros	Dec 31, 2018 12 months	%	Dec 31, 2017 12 months	%
Euro	**673.8**	***57%***	**631.9**	***56%***
Other				
US dollar	193.0	16%	206.3	18%
Chinese Yuan	69.4	6%	57.8	5%
Pound sterling	32.7	3%	34.2	3%
Czech koruna	31.7	3%	19.8	2%
Indian rupee	30.2	3%	26.6	2%
Swiss franc	20.8	2%	20.7	2%
Swedish krona	18.5	2%	17.0	1%
South African rand	15.8	1%	9.4	1%
Turkish lira	10.5	1%	13.3	1%
Brazilian real	6.9	1%	13.1	1%
Other currencies	85.4	7%	87.6	8%
Total	**1,188.8**	***100%***	**1,137.6**	***100%***

19.3 Rate risk

19.3.1 Exposure to interest rate risks

As part of its interest rate risk management policy aimed at managing the risk of an increase in interest rates, bioMérieux SA hedges part of its debt.

The bond issue, after accounting for interest rate derivatives, is at a fixed rate until maturity in 2020. The expense in respect of the related premiums is being amortised over the term of the hedges.

The real estate lease financing agreement in the amount of €45 million set up in 2015 to finance Campus de l'Etoile is variable-rate and indexed. At December 31, 2018, there was no 2017 mechanism set up to back this financing.

Exposure to interest rate risk on other borrowings is not material and is not subject to hedging.

19.3.2 Hedging instruments

At December 31, 2018, the interest rate risk hedging portfolio comprised interest rate swaps with no sensitivity to rate risk since €150 million in fixed rate payer swaps established in April 2017 cancelled the impact of the variable rate payer swaps of €150 million until their maturity in 2020.

The market value of these rate swaps amounted to a €4.5 million.

19.4 Exchange rate and interest rate risk

19.4.1 Exposure to exchange rate and interest rate risk

In 2013, bioMérieux SA issued bonds in connection with its US dollar-denominated acquisition of US-based BioFire by bioMérieux Inc., which closed in January 2014. In January 2014, bioMérieux SA granted a loan of US$470 million to bioMérieux Inc. These transactions generated a combined exchange rate risk and interest rate risk that needed to be hedged.

19.4.2 Hedging instruments

In order to mitigate the above-described exchange rate and interest rate risk, the Company set up a cross currency swap in January 2014.

Cross currency swaps in the amount of US$470 million have been exchanged. This nominal amount is payable in six-monthly instalments.

At December 2018, the outstanding nominal amount of cross currency swaps stood at US$134.3 million. The market value of these instruments amounted to a negative €18,3 million.

Note 20 Of f-balance sheet commitments

20.1 Financial commitments

20.1.1 Commitments given

In millions of euros	Dec 31, 2018	Dec 31, 2017
Endorsements and guarantees	200.6[a]	95.0
Finance lease and rent commitments	37.8	42.2
Total	**238.4**	**137.2**

(a) Of which related parties for €199.8 million.

In 2018, bioMérieux SA stood surety for the RMB 655 million (€83 million) loan taken by bioMérieux Shanghai as part of the financing of the acquisition in 2018 of the majority of the shares making up the share capital of Suzhou Hybiome Biomedical Engineering Co. Ltd.

Lease financing In millions of euros		Royalties		Amortisation and depreciation	
	Gross	financial year	cumulative	financial year	cumulative
Land	2.3	0.2	0.4		
Buildings	42.1	3.7	8.4	2.5	5.6
Total	**44.4**	**3.9**	**8.8**	**2.5**	**5.6**

Lease financing In millions of euros	Outstanding royalties				Residual value
	< 1 year	1-5 years	> 5 years	Total	
Land	0.2	0.8	0.9	1.9	
Buildings	3.4	13.9	17.1	34.4	
Total	**3.6**	**14.7**	**18.0**	**36.3**	

20.1.2 Commitments received

In millions of euros	Dec 31, 2018	Dec 31, 2017
Credit facilities with a banking syndicate	500.0	500.0
Total	**500.0**	**500.0**

20.2 Research & development commitments

At December 31, 2018, commitments given in respect of various research agreements amounted to €5 million.

bioMérieux SA participates in a research program coordinated by Institut Mérieux, together with bioMérieux, Transgène, Genosafe and the Genethon association. The aim of this program is to develop a new generation of diagnoses and therapies focusing on cancers, infectious diseases and genetic disorders. This program is known under the acronym "ADNA" (for "Advanced Diagnostics for New therapeutic Approaches"). The program receives financing from the French government's Industrial Innovation Agency (Agence de l'innovation industrielle), which merged with OSEO ANVAR in 2007, and was renamed Bpifrance in July 2013. The public financing agreement was approved by the European authorities on October 22, 2008. In this context, and in light of the supplemental agreements modifying the initial research program, bioMérieux SA had agreed to undertake research & development for an estimated amount of €67.5 million and updated to €54.5 million. The liquidating assessment was carried out in 2017. At December 31, 2018, the Company had no more undertakings to carry out research & development work. In return, bioMérieux SA received subsidies (€16.1 million) and repayable grants (€7.5 million). If the products resulting from this research are commercially successful, bioMérieux SA will have to pay back these grants according to a payment schedule based on the revenue generated from these products, and will also have to pay a share of profits until 2029 (3.4% of revenue earned on the relevant products).

bioMérieux SA entered into a ten-year partnership with BIOASTER, a Technological Research Institute in Lyon specialised in infectious diseases. In the period 2012-2015, its contribution to research activities resulted in new partnership agreements being put in place with BIOASTER for almost €4 million. bioMérieux's own employees are also involved in these partnership agreements. A new collaboration cycle was opened for the period between January 1, 2016 and end of July 2020 during which bioMérieux SA has made a commitment to BIOASTER in the same proportions.

20.3 Commitments relating to equity investments

bioMérieux SA granted a commitment to Amorçage Technologique Investissement (ATI) to submit further competitive bids in an amount of €0.2 million.

Note 21 Related parties

21.1 Affiliated companies: balance sheet items

In millions of euros	Dec 31, 2018	Dec 31, 2017
TOTAL NON-CURRENT FINANCIAL ASSETS	**826.3**	**585.4**
TOTAL RECEIVABLES	**253.4**	**221.1**
Total cash at bank and in hand[(a)]	**43.6**	**219.7**
Operating payables	84.4	83.5
Borrowings[(b)]	196.8	136.8
TOTAL PAYABLES	**281.2**	**220.3**

(a) Advances to subsidiaries for cash pooling.
(b) Advances from subsidiaries for cash pooling.

21.2 Affiliated companies: financial income and expenses

In millions of euros	Dec. 31, 2018 12 months	Dec. 31, 2017 12 months
Net impairment of investments	(8.7)	(5.9)
Financial expenses	(27.7)	(11.6)
Dividends received	25.3	26.0
Financial income	43.6	38.8
TOTAL	**32.5**	**47.3**

Financial income includes exchange gains following the revaluation of the cash pooling (€28.1 million), as well as interest on loans to subsidiaries and cash pooling (€11.9 million) of which €7 million of interest on the bioMérieux Inc. loan, €0.5 million for the interest on the BioFire loan and €4.1 million for interest for the cash pool. Financial income also includes reversals of provisions for foreign exchanges losses on long-term loans for €1.1 million and the merger premium with SAS International for €1.2 million.

Financial expenses recorded foreign exchanges losses on cash pooling (€20.1 million) and the repayment of the BioFire loan (€2.9 million), unrealised exchange losses on long-term loans (€1 million for the loan granted to RAS), as well as interest on cash pooling (€2.1 million).

21.3 Related party transactions

The Institut Mérieux, which held 58.9% of bioMérieux SA at December 31, 2018, performed research and services at bioMérieux SA for a total of €7.6 million for the year, from which €2.6 million were rebilled to bioMérieux Inc. and €1.1 million to BioFire. bioMérieux SA rebilled €0.5 million to Institut Mérieux for expenses paid on its behalf.

The Company rebilled €3.6 million worth of services and reagent sales to entities of the Mérieux NutriSciences Corporation Group, in which Institut Mérieux holds a majority interest.

Théra Conseil, which is 99.2%-owned by Institut Mérieux, billed bioMérieux SA €1.9 million for services in respect of 2018.

bioMérieux SA contributed €2 million to the Fondation Christophe and Rodolphe Mérieux for humanitarian projects.

bioMérieux SA billed the Fondation Mérieux €0.2 million for expenses incurred on its behalf.

bioMérieux SA paid €4.3 million to Mérieux University (in which bioMérieux SA and Institut Mérieux each hold a 40% interest, and Mérieux NutriSciences Corporation holds a 20% interest) in respect of training fees, and rebilled €1.7 million in other services.

bioMérieux SA billed the Mérieux Développement SAS €0.1 million for expenses incurred on its behalf.

ABL Inc., in which Institut Mérieux indirectly holds the entire share capital, billed bioMérieux SA for raw materials in 2018 in an amount of €1 million. The other companies of the ABL group billed bioMérieux SA €0.2 million for research expenses and fees. Conversely, bioMérieux SA rebilled them €0.1 million for instruments and reagents.

The LyonBiopôle competitiveness cluster billed bioMerieux SA €0.1 million for services in 2018.

The companies of the Pierre Fabre group were billed €0.5 million for services and reagent sales.

BIOASTER billed bioMérieux SA €1.2 million for research expenses and fees. Conversely, bioMérieux rebilled BIOASTER €0.2 million for services.

bioMérieux SA made a €0.1 million donation to the Université de Lyon Foundation.

Biofortis billed €0.2 million in research and services expenses to bioMérieux SA.

Lastly, Quanterix billed €0.2 million to bioMérieux SA for services and the provision of raw materials.

6.2.3 Analysis of the results and other financial information

6.2.3.1 Revenue and financial position

Sales

During the year ended December 31, 2018, the Company's sales amounted to €1,189 million compared to €1,138 million for the previous year, representing a year-on-year increase of 4.5%.

The growth in sales was mainly attributable to the 1.1% rise in sales to subsidiaries in a context of global Group growth, as well as to the 10.1% increase in export sales (mainly to distributors). Domestic sales also rose 1.6%, boosted by the strong momentum of the molecular biology product ranges.

Gross operating income

Gross operating income came in at €153.8 million, i.e. 12.9% of sales. It dropped by €18.9 million (11%) compared to the previous financial year.

Despite the 4.5% growth in sales, gross operating income was impacted by the 8.8% increase in personnel costs, which was greater than sales growth, as well as by the 5.7% change in external charges.

Operating income

After depreciation, amortisation and provisions, operating income decreased by €11.5 million, dropping from €69.7 million in 2017 to €58.2 million at December 31, 2018.

This 16.5% decrease is primarily due to the reduction in gross operating income.

Net financial income

In 2018, net financial income came in at €12.6 million versus €42.1 million the previous year.

This change is primarily due to the €21.2 million reduction in exchange gains on financial transactions and the €3.6 million increase in the write-down of securities.

Recurring income

Net income before non-recurring items and tax totalled €70.8 million versus €111.8 million one year earlier.

Non-recurring income

The Company reported net non-recurring income of €3.7 million at December 31, 2018 versus a loss of €4.9 million at December 31, 2017. This difference is due to income from the disposal of securities in 2018 and the reduction in the regulated provisions that comprised the bulk of non-recurring income for 2017.

Net accelerated depreciation/amortisation expense amounted to €0.5 million, down from €4.9 million in 2017.

Income tax and tax credits

Income tax amounted to net income of €0.6 million, compared to €2.3 million at December 31, 2017.

The €20.1 million income tax expense (versus €22.5 million in 2017) is completely offset by tax credits, primarily the provisioned research tax credit of €17.9 million, which remained stable in relation to 2017.

Net income

Net income for the financial year came in at €75.1 million compared with €109.2 million the previous year, *i.e.* a year-on-year decrease of €34.1 million. It represented 6.3% of sales, compared to 9.6% of sales the previous year.

Investments

Investments in intangible assets represented €19.2 million and primarily concerned developments of IT solutions.

Capital expenditure, amounting to €49.9 million, mainly concerned the equipment of the Craponne industrial site.

Non-current financial assets (acquisition - disposals) increased by €256.2 million in gross value, primarily because of the capital increases of the three subsidiaries (ABG Stella for €342 million, bioMérieux China for €23.5 million, and bioMérieux Brazil for €3 million), partially offset by the €72.3 million repayment on the credit facility granted to the BioFire Diagnostics subsidiary and the €49.2 million repayment on the loan granted to bioMérieux Inc.

6.2.3.2 Income appropriation and non-deductible expenses

Shareholders will be invited to appropriate distributable net income for the year ended December 31, 2018, totalling €181,927,945.91, consisting of €75,140,870.01 in net income and €106,787,075.90 in retained earnings, as follows:

- €60,000,000 to be transferred to the General Reserve, increasing the balance from €735,000,000 to €795,000,000.28;
- €56,481.61 to be transferred to the "Special sponsorship reserve", increasing the balance from €879,137.36 to €935,618.97;
- €41,426,427.00 to be distributed, representing a dividend of €0.35 for each of the 118,361,220 shares comprising the share capital, to be paid on June 6, 2019;
- the remaining €80,445,037.30 is to be transferred to retained earnings.

In accordance with the provisions of article L.225-210 of the French Commercial Code, the Company will not receive any dividends on treasury shares held on the ex-dividend date. The corresponding dividend amount will be allocated to "Retained earnings".

The dividend is eligible for the 40% tax basis deduction. Individuals domiciled in France for tax purposes benefit from a 40% tax deduction in accordance with paragraph 2, article 158.3 of the French Tax Code (Code général des impôts) and will be subject, except in specific cases, to the mandatory, non-discharging levy of 12.8% for income tax and social security withholdings.

The dividends paid for each of the past three years are presented in section 7.6.

Non-tax-deductible expenses

The 2018 financial statements include non-tax-deductible expenses as provided for in articles 223 *quater* and 223 *quinquies* of the French Tax Code amounting to €433,203. These correspond to the non-deductible portion of rental payments and depreciation charges for vehicles leased and purchased by bioMérieux SA. Income tax at the base rate paid in this respect amounted to €144,401.

6.2.3.3 Five-year financial summary (article R. 225-102 of the French Commercial Code)

	Financial year Dec. 31, 2018	Financial year Dec. 31, 2017	Financial year Dec. 31, 2016	Financial year Dec. 31, 2015	Financial year Dec. 31, 2014
I. Share capital at year-end					
Share capital (in euros)	12,029,370	12,029,370	12,029,370	12,029,370	12,029,370
Number of ordinary shares outstanding[a]	118,361,220	118,361,220	39,453,740	39,453,740	39,453,740
Number of preferred shares (without voting rights) outstanding	0	0	0	0	0
Maximum number of potential shares to be issued	0	0	0	0	0
By conversion of bonds	0	0	0	0	0
By exercise of subscription rights	0	0	0	0	0
II. Transactions and net income for the year *(in euros)*					
Sales	1,188,752,991	1,137,563,972	1,038,853,374	961,955,147	901,590,987
Income before tax, employee profit-sharing, depreciation, amortisation and provisions	135,210,344	167,690,845	81,341,294	150,431,236	95,469,356
Income tax[b]	(562,410)	(2,294,743)	(8,533,578)	(1,081,437)	(13,187,405)
Employee profit-sharing for the year			0	0	0
Income after tax, employee profit-sharing, depreciation, amortisation and provisions	75,140,870	109,199,429	69,111,739	75,654,871	65,214,395
Dividends paid[c]	41,426,427	40,242,815	39,453,740	39,453,740	39,453,740
Special dividend paid from the general reserve	0	0	0	0	0
III. Earnings per share *(in euros per share)*					
Income after tax and employee profit-sharing, but before depreciation, amortisation and provisions	1.14	1.44	2.28	3.83	2.74
Income after tax, employee profit-sharing, depreciation, amortisation and provisions	0.63	0.92	1.75	1.92	1.65
Dividend per share	0.35	0.34	1.00	1.00	1.00
IV. Employee data					
Average number of employees during the year[d]	3,649	3,554	3,427	3,326	3,330
Total annual payroll *(in euros)*	211,591,174	199,088,838	187,804,208	177,082,713	170,319,174
Total employee benefits paid during the year (social security, charities) *(in euros)*	101,882,387	88,884,116	84,651,059	80,796,671	78,084,404

(a) The number of shares was tripled in 2017 after the three-for-one split decided by the Combined Shareholders' Meeting of June 2017
(b) The negative amounts correspond to tax income
(c) Subject to the non-payment of dividends on treasury shares held on the ex-dividend date
(d) Excluding interns and international work experience volunteers (VIE), data changed from that previously published in order to homogenise the headcount.

6.2.3.4 Information on payment periods

Trade payables at December 31, 2018 by due date

In accordance with article D.441.4 of the French Commercial Code (Code de commerce), invoices received and not paid at December 31, 2018 that are in arrears are broken down as follows:

SUPPLIER INVOICES (NON-GROUP)

	Invoices received that have not been settled on the balance sheet date and are in arrears				
	1 to 30 days	31 to 60 days	61 to 90 days	More than 91 days	Total (More than 1 day)
(A) Late payment ranges					
Number of invoices concerned	44	120	43	224	431
Total amount of invoices concerned (inclusive of tax)	237,090	514,927	139,641	580,746	1,472,404
Percentage of the total amount of purchases for the year	0.05%	0.11%	0.03%	0.13%	0.33%
(B) Invoices excluded from[a] relating to disputed debts or unrecognised debts					
Number of invoices excluded					
Total amount of invoices excluded (inclusive of tax)					
(C) Reference payment period used (contractual or legal period article L.441-6 or article L.443-1 of the French Commercial Code (*Code de commerce*)					
Payment schedules used in calculating late payments	Contractual period: 0 to 45 days from the end of the month, according to the contract				

SUPPLIER INVOICES (NON-GROUP AND GROUP)

	Invoices received that have not been settled on the balance sheet date and are in arrears				
	1 to 30 days	31 to 60 days	61 to 90 days	More than 91 days	Total (More than 1 day)
(A) Late payment ranges					
Number of invoices concerned	48	121	46	245	460
Total amount of invoices concerned (inclusive of tax)	536,396	516,785	170,821	722,391	1,946,394
Percentage of the total amount of purchases for the year	0.07%	0.06%	0.02%	0.09%	0.25%
(B) Invoices excluded from[a] relating to disputed debts or unrecognised debts					
Number of invoices excluded					
Total amount of invoices excluded (inclusive of tax)					
(C) Reference payment period used (contractual or legal period article L.441-6 or article L.443-1 of the French Commercial Code (*Code de commerce*)					
Payment schedules used in calculating late payments	Contractual period: 0 to 60 days from the end of the month, according to the contract for suppliers				

Trade receivables at December 31, 2018 by due date

In accordance with article D.441.4 of the French Commercial Code (*Code de commerce*), invoices issued and not paid at December 31, 2018 that are in arrears are broken down as follows:

CLIENT INVOICES (NON-GROUP)

	Invoices issued that have not been settled on the balance sheet date and are in arrears					
	0 day (Indicative)	1 to 30 days	31 to 60 days	61 to 90 days	More than 91 days	Total (More than 1 days)
(A) Late payment ranges						
Number of invoices concerned	4,164	2,315	1,738	960	4896	9,909
Total amount of invoices concerned (inclusive of tax)	10,282,748	4,694,039	7,985,663	2,003,795	3,634,420	18,317,918
Percentage of revenue for the financial year	2.78%	1.27%	2.16%	0.54%	0.98%	4.95%
(B) Invoices excluded from[a] relating to disputed or unrecognised receivables						
Number of invoices excluded				442		
Total amount of invoices excluded (inclusive of tax)				1,088,676		
(C) Reference payment periods used						
Payment schedules used in calculating late payments	Contractual periods:	France: between 30 days from the end of the month and 60 clear days Export: between 30 clear days and 120 clear days				

CLIENT INVOICES (NON-GROUP AND GROUP)

	Invoices issued that have not been settled on the balance sheet date and are in arrears					
	0 day (Indicative)	1 to 30 days	31 to 60 days	61 to 90 days	More than 91 days	Total (More than 1 days)
(A) Late payment ranges						
Number of invoices concerned	4,171	2,468	1,805	987	5,145	10,405
Total amount of invoices concerned (inclusive of tax)	10,282,748	8,918,300	9,838,993	2,192,665	4010 492	24,960,451
Percentage of revenue for the financial year	0.86%	0.75%	0.83%	0.18%	0.34%	2.10%
(B) Invoices excluded from[a] relating to disputed or unrecognised receivables						
Number of invoices excluded				614		
Total amount of invoices excluded (inclusive of tax)				6,702,223		
(C) Reference payment period used (contractual or legal period – article L.441-6 or article L.443-1 of the French Commercial Code)						
Payment schedules used in calculating late payments	Contractual periods:	France: between 30 days from the end of the month and 60 clear days Export: between 30 clear days and 120 clear days				

6.2.4 Report of the Statutory Auditors on the annual financial statements

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speakingreaders. The Statutory Auditors' report includes information specifically required by French law in such reports, whether modified or not. Thisinformation is presented below the opinion on the financial statements and includes an explanatory paragraph discussing the Auditors' assessmentsof certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the financialstatements taken as a whole and not to provide separate assurance on individual account captions or on information taken outside of the financialstatements. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standardsapplicable in France.

At the bioMérieux Annual General Meeting,

Opinion

In performing the duty entrusted to us by your Annual General Meetings, we conducted an audit of the annual financial statements of bioMérieux for the year ended December 31, 2018 as appended to this report.

We certify that with regard to French accounting rules and principles, the annual financial statements are reliable and faithfully reflect the operating results of the financial year just elapsed, as well as the financial position and assets of the Company at the close of the said financial year.

The opinion expressed above is consistent with the contents of our report to the Audit Committee.

Basis for opinion

Audit Standard

We conducted our audit according to generally accepted professional standards in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Our responsibilities by virtue of these standards are stated in the section "Statutory Auditors' responsibilities relating to the audit of the annual financial statements" of this report.

Independence

We have conducted our audit in compliance with the rules of independence that apply to us, from the period between January 1, 2018 to the date of issue of our report, and in particular we have not provided services prohibited by article 5, Paragraph 1, of EU regulation No. 537/2014 or by the Auditors Code of Ethics.

Justification for our assessments – Key points of the audit

Pursuant to the provisions of articles L.823-9 and R.823-7 of the French Commercial Code relating to the justification of our assessments, we draw your attention to the key points of the audit relating to risks of material misstatements which, according to our professional judgement, were the most significant for the audit of the annual financial statements for the financial year, plus the answers provided to control these risks.

Our assessments on these matters are part of the audit approach of the annual financial statements taken as a whole and the formation of our opinion expressed above. We do not express an opinion on the elements of these annual financial statements taken separately.

Assessment of equity investments

Risk identified	Our response
Equity investments are recorded in the balance sheet for a net amount of €621 million at December 31, 2018, and represented 31% of the Group's balance sheet. They are recognised at their acquisition cost and impaired whenever their value in use falls below their acquisition cost. As stated in Note 3.3.1 of the notes to the annual financial statements, the value in use is estimated by the management either: • by taking into account the net carrying amount of the subsidiary on the reporting date that may be adjusted if necessary to reflect the value of any unrecognised; identifiable assets (particularly real estate or technologies); • or given the specific nature of certain investments, based on discounted future cash flows or on observable market financial inputs. The estimation of the value in use of these securities requires that the management exercise its judgement in selecting the elements to be considered depending on the investments concerned (cash flow, discount rate, etc.). In this connection and given the uncertainties inherent in some elements, such as the probability of forecasts being achieved, we have considered that the assessment of equity investments is a key audit matter.	We analysed the assessment method used and the figures on which it is based. For assessments based on historic elements, where appropriate adjusted to reflect the value of any unrecognised identifiable assets, our work consisted primarily in examining the consistency of the net assets used with the accounts of the entities that have been audited or subjected to analytical procedures, and in checking whether adjustments made, if any, were supported by meaningful documentation. For assessments based on provisional data, our work consisted primarily in: • obtaining the cash flow and operating forecasts for the activities of the entities concerned and in assessing their consistency with the forecast data presented by senior management as part of the budgeting process; • analysing the consistency of the assumptions used with the economic climate; • assessing the discount rate used for the discounting of cash flows.

Specific verification

In accordance with the professional standards applicable in France, we have also undertaken the specific verifications required by law and by regulations.

Information given in the management report and in the other documents: sent to shareholders about the Company's financial position and annual financial statements

We have no matters to report as to the fair presentation and the consistency with the annual financial statements of the information given in the management report of the Board of Directors, and in the documents addressed to the shareholders with respect to the financial position and the annual financial statements.

We hereby certify the fairness and the consistency with the annual financial statements of the information regarding payment periods described in article D. 441-4 of the French Commercial Code.

Report on corporate governance

We certify that the Board of Directors' report on corporate governance contains the information required by articles L.225-37-3 and L.225-37-4 of the French Commercial Code.

Concerning the information disclosed in accordance with the requirements of article L.225 37-3 of the French Commercial Code relating to compensation and benefits received by corporate officers and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies controlling it or controlled by it. Based on this work, we attest to the accuracy and fair presentation of this information.

Concerning the information on the elements that your Company considered likely to have an impact in the event of a public tender or exchange offer, provided pursuant to the provisions of article L.225-37-5 of the French Commercial Code, we verified their compliance with the documents from which they were created and that were forwarded to us. On the basis of these verifications, we have no observation to make with regard this information.

Other Information

As required by law, we are satisfied that the various disclosures about the identity of those who hold equity and voting rights have been communicated to you in the management report.

Information from other legal and regulatory obligations

Appointment of Statutory Auditors

We were appointed Statutory Auditors of bioMérieux by your General Meeting of May 30, 2017 for GRANT THORNTON and May 30, 2012 for ERNST & YOUNG et Autres.

As at December 31, 2018, GRANT THORNTON was in the second continuous year of its audit engagement while ERNST & YOUNG et Autres was in the seventh year.

Responsibilities of senior management and the persons constituting corporate governance for the annual financial statements

Senior management is responsible for the preparation of annual financial statements that present a true view in compliance with French accounting rules and principles, together with the implementation of the internal control that it deems relevant to the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

When preparing the annual financial statements, senior management is responsible for assessing the Company's ability to continue as a going concern, to present in these financial statements, if necessary, information concerning the continuity of the Company's operations and to apply the accounting policy of going concern, unless there are plans to unwind the Company or discontinue the business.

The Audit Committee is responsible for monitoring the financial reporting preparation process and the effectiveness of internal control and risk management systems and, if necessary, the Internal Audit Department with respect to procedures relating to preparation and treatment of financial and accounting information.

These financial statements have been approved by the Board of Directors.

Responsibilities of the Statutory Auditors relating to the audit of the annual financial statements

Audit objective and procedure

It is our duty to draw up a report on the annual financial statements. Our objective is to obtain reasonable assurance that the annual financial statements, taken as a whole, are free from material misstatement. Reasonable assurance corresponds to a high level of assurance, without however guaranteeing that an audit conducted in accordance with professional standards will systematically detect any material misstatement. Misstatements may arise from fraud or result from errors and are considered as material when it can be reasonably expected that, taken singly or together, they can influence the economic decisions that users of the financial statements take based thereon.

As stated in article L.823-10-1 of the French Commercial Code, our engagement to certify the financial statements does not consist in guaranteeing the viability or quality of management of your Company.

Within the framework of an audit conducted in compliance with professional standards applicable in France, the statutory Auditor exercises his professional judgement throughout the audit. Furthermore:

- the statutory auditor identifies and assesses the risks that the annual financial statements may contain material misstatements, whether from fraud or errors, defines and implements audit procedures based on these risks, and collects the elements it considers sufficient and appropriate on which to base its opinion. The risk of not detecting a material misstatement arising from fraud is higher than the risk of a material misstatement resulting from an error, because fraud may imply collusion, falsification, voluntary omissions, false declarations or the circumvention of internal control;

- the statutory auditor reviews the relevant internal control for the audit in order to define the appropriate audit procedures for the circumstances and not to express an opinion on the effectiveness of internal control;
- he assesses the appropriateness of the accounting methods used and the reasonable nature of the accounting estimates made by the management, as well as information concerning these methods provided in the annual financial statements;
- he assesses the appropriateness of the application by the management of the going concern concept and, according to the elements collected, whether or not there is a material uncertainty linked to events or circumstances likely to compromise the Company's ability to continue as a going concern. This assessment is based on the information collected until the date of his report. It is however pointed out that subsequent circumstances or events could jeopardise continuity as a going concern. If he concludes that there is a material uncertainty, the statutory auditor draws the attention of the readers of the report to the information provided in the annual financial statements about such uncertainty, or if this information is not provided or is not relevant, he issues a certification with reservations or a refusal to certify;
- he assesses the overall presentation of the annual financial statements and assesses whether they reflect underlying operations and events so as a give a true view.

Report to the Audit Committee

We submit a report to the Audit Committee that presents, in particular, the scope of the audit and the work schedule implemented as well as the conclusions of our audit. Our audit also informs the Audit Committee of any material weaknesses of internal control that we have identified with respect to the procedures relating to the preparation and treatment of accounting and financial information.

The points mentioned in the report to the Audit Committee include the risks of material misstatements that we consider to have been the most important for the audit of the annual financial statements of the year, which therefore constitute the key points of the audit, which it is our duty to describe in this report.

We also submit to the Audit Committee the declaration provided in article 6 of EU regulation No. 537-2014 confirming our independence, as defined in rules applicable in France as set out in articles L.822-10 to L.822-14 of the French Commercial Code and in the statutory auditors professional Code of Ethics. If necessary, we will meet the Audit Committee to discuss the risks that threaten our independence and the safeguard measures applied.

Lyon, February 28, 2019

The Statutory Auditors

GRANT THORNTON,
French member of Grant Thornton International,
Françoise Méchin

ERNST & YOUNG et Autres,
Nicolas Perlier


Plate imag
es Library
Yeast
Enterobacter cloac
Enterococcus faecalis
Mac Conkey Agar
ChromID Salmonella

7

INFORMATION ON THE COMPANY AND ITS SHARE CAPITAL

7.1 General information on the Company

The Company's name is bioMérieux.

No trade name has been registered. In this Registration Document, bioMérieux is referred to as the "Company", "bioMérieux", or the "Group".

bioMérieux is a French joint stock company (*société anonyme*) with a Board of Directors, governed by the French Commercial Code (*Code de commerce*) and all other applicable laws and regulations, registered with the Lyon Trade and Companies Register under number 673 620 399. Its APE Industry Code is 2059 Z.

The Company was incorporated on December 13, 1967 for a period of 50 years from its registration with the Trade and Companies Registry, unless this period is extended or the Company is dissolved before the end of the period. The Ordinary and Extraordinary Shareholders' Meeting of April 16, 2004 resolved to extend the Company's duration (Article 5 of the bylaws) to 99 years, expiring April 15, 2103.

The Company's registered office is located in Marcy l'Étoile (Rhône department), France. The Company has been established in France since its incorporation.

7.2 Articles of incorporation and bylaws

7.2.1 Corporate purpose

Article 2 of the bylaws stipulates that the Company's purpose, in France and elsewhere, is to:

- manufacture, produce, process, package, distribute, buy, sell, import and export any products and devices and any techniques and know-how used in particular for diagnostics, prevention and treatment, notably in the field of healthcare;
- carry out all studies and research and develop, acquire, grant, keep, control, use, improve, including through the use of licenses and sub-licences, all trademarks, brand names, patents, techniques, inventions, improvements, formulas, designs, processes, etc. in any way related to the abovementioned products or to the manufacturing and trading of such products;
- participate, either directly or indirectly, in all business and manufacturing transactions related in any way whatsoever to the abovementioned purposes or likely to promote them, either through the creation of new companies, the contribution, subscription or purchase of securities or Company rights, through mergers, alliances, joint holdings, or by any other means;
- perform all transactions in its line of business, either alone and on its own behalf or on behalf of a third party, on commission, as a broker, for a fee, on a cost basis, as representative or proxy for any entity or in any other capacity;
- provide all services relating to the organisation of bioMérieux's systems including laboratory automation, the purchase and assembly of equipment and specialised software; propose training courses for all healthcare professionals working within the key fields of industrial and medical biology;
- generally, perform all business, manufacturing, financial or other transactions directly or indirectly related to the above purposes or to any similar purposes, including the development of ways to expand, promote, advertise, trade or transport raw materials, semi-finished or finished products, as well as the ability to purchase, acquire, hold, transfer, lease, mortgage or dispose of goods, whether movable or immovable, tangible or intangible, related to the above purposes or likely to develop them.

7.2.2 Provisions relating to the administrative, management and supervisory bodies

The provisions relating to the administrative, management and supervisory bodies are laid down in Articles 11 to 17 of the bylaws and in the internal rules of the Board of Directors and are listed in section 4.2.5.2.

The Company is managed by a Board of Directors composed of at least three members and up to the maximum number permitted by law, and if applicable, one or more employees appointed in accordance with the law or the bylaws. The Board of Directors elects a Chairman from among its members. The Chairman must be a natural person, failing which the appointment will be deemed invalid. The Board of Directors sets the Chairman's compensation. The Board of Directors may also appoint one or more Vice-Chairmen from among its members. The Chairman of the Board of Directors organises and coordinates the Board of Directors' work and reports thereon to the Shareholders' Meeting.

The members of the Board of Directors are elected for terms of four years, expiring at the end of the Ordinary Shareholders' Meeting called during the year in which the term of the director in question expires to approve the financial statements for the previous year. All directors are eligible for reelection. By way of exception to allow for staggered renewal of the terms of office of the directors in the most equal possible proportions, the terms shall be set at one, two or three years.

The internal rules of the Board of Directors require each member of the Board of Directors to hold a minimum of ten Company shares for the duration of his/her term of office.

The Shareholders' Meeting may decide to allocate a fixed annual sum to the Board of Directors as directors' fees, until a subsequent Shareholders' Meeting decides otherwise. Directors' fees are allocated among members of the Board as the Board deems appropriate. Directors who are members of Board committees receive higher fees than other directors.

The Company's Chief Executive Officer is the Chairman of the Board of Directors.

7.2.3 Rights and privileges attached to shares

7.2.3.1 Appropriation of income

Article 10 of the bylaws stipulates that each share entitles its holder to a proportionate share of income corresponding to the percentage of capital it represents.

Article 22 specifies that the income for the year, less any accumulated losses, is subject to a deduction of (i) at least five per cent allocated to the legal reserve, a deduction which ceases to be mandatory once the reserve represents one tenth of the share capital but becomes mandatory again if the legal reserve falls to below one tenth of the share capital for any reason, and (ii) any amount to be set aside as reserves as required by law.

The balance, plus any retained earnings, represents distributable net income that the Shareholders' Meeting may, on recommendation of the Board of Directors, distribute in whole or in part as dividends, or allocate to reserve accounts, capital amortisation or retained earnings.

The Shareholders' Meeting may allow shareholders the option to receive all or part of dividends or interim dividends distributed in either cash or shares, in accordance with the law. The Shareholders' Meeting may decide to use the reserves at its disposal to pay a dividend on shares. If this occurs, the relevant resolution must expressly state from which accounts funds are to be withdrawn.

In addition, the Shareholders' Meeting may resolve to use income or reserves, other than the legal reserve, to pay off some or all of the shares and to repay them up to their par value.

Article 23 of the bylaws specifies that the terms of payment of dividends are set by the Shareholders' Meeting or, failing that, by the Board of Directors. Dividends must be paid no more than nine months after the year end, unless otherwise authorised by a court. The Board of Directors may, subject to the provisions of the law, distribute one or more interim dividends prior to the approval of the financial statements for the year.

7.2.3.2 Attendance at Shareholders' Meetings

Article 19 of the bylaws stipulates that all shareholders are entitled to take part in Ordinary and Extraordinary Shareholders' Meetings and in deliberations, either in person or by proxy, as provided by law.

Shareholders may be represented at all meetings, in accordance with applicable laws and regulations. They may also vote by mail by way of a form, which can be obtained under the conditions outlined in the convening notice, in accordance with applicable laws and regulations. Proxy or voting forms of shareholders attending meetings in person will be declared null and void.

Shareholders may take part in meetings by videoconference or by other means of telecommunication in accordance with the terms of applicable laws and regulations referred to in the published notice of meeting or the convening notice. In 2013, the Annual General Meeting decided to introduce voting by electronic mail.

Minutes of Shareholders' Meetings are prepared, and copies are certified and delivered in accordance with the law.

7.2.3.3 Voting rights

Voting rights attached to shares are proportionate to the fraction of capital represented and each share entitles its holder to at least one vote (Article 20 of the bylaws).

All paid-up shares which have been held in registered form by the same shareholder for five years or more, based on the proportion of share capital they represent and irrespective of their class, carry double voting rights. The double voting right was approved by the Annual General Meeting in 1999. Shares converted to bearer form or whose ownership changes, subject to the exceptions provided by law, automatically lose their double voting rights. Registered shares are not stripped of voting rights and the five-year period continues to run in the event of transfers following an inheritance, the liquidation of community property between spouses and *inter vivos* gifts made to a spouse or relatives entitled to inherit.

The Company's merger or demerger would not affect double voting rights, which may be exercised within the successor entity(ies) if their bylaws so permit.

In the event of a capital increase through the capitalisation of reserves, profit or paid-in capital, new shares allocated in respect of existing shares carrying double voting rights will also have double voting rights from the date of issue.

7.2.3.4 Form of shares and identification of the shareholders

Fully paid-up shares may be held in registered or bearer form, at the shareholders' discretion, subject to applicable laws and regulations. Shares must be held in registered form until they are fully paid up (Article 8 of the bylaws).

The Company may apply statutory and regulatory provisions relating to the identification of holders of securities granting immediate or future voting rights at Shareholders' Meetings.

7.2.4 Changes in capital and shareholders' rights

Any changes in the share capital or the shareholders' rights (voting rights attached to shares) are governed by French law, as the bylaws do not any contain specific provisions in this respect.

7.2.5 Convening of Shareholders' Meetings

Shareholders' Meetings are called and deliberate in accordance with the law.

Shareholders' Meetings take place either at the Company's registered office or at another location indicated in the convening notice. The Board of Directors can decide, upon issuing the convening notice, to publicly hold the entire meeting by videoconference and/or by other means of telecommunication, in accordance with the law. Where applicable, this decision is made known in the published notice of meeting or the convening notice.

The Company publishes a notice in the French bulletin of mandatory legal notices (*Bulletin des annonces légales obligatoires* – BALO) containing the text of the resolutions which will be presented at the Shareholders' Meeting in accordance with the law.

Shareholders' Meetings are called by a notice published in the BALO and in a newspaper authorised to publish legal notices in the same département (French administrative division) as the Company's registered office, within the timeframe provided for by law.

Holders of registered shares who have held their shares for at least one month at the date of publication of the convening notice are convened by ordinary letter; they may request to receive notice by registered letter if they provide the Company with the amount of postage required.

All shareholders are entitled to take part in Ordinary and Extraordinary Shareholders' Meetings and in deliberations, either in person or by proxy, as provided by law.

Shareholders may be represented by their spouse or by another shareholder at all meetings.

7.3 Share capital

7.3.1 History and amount of the issued capital

The Company's share capital has not been modified in the last three years.

The number of shares issued is 118,361,220 (all shares are of the same class). On September 19, 2017, bioMérieux carried out a 1 for 3 stock split, dividing the par value per share by 3, following a decision by the Board of Directors dated August 29, authorised by the Combined Shareholders' Meeting held on May 30 of the same year, which endorsed this decision (18th resolution). The number of shares accordingly rose from 39,453,370 to 118,361,220.

The issued capital amounts to €12,029,370 fully paid up. The Annual General Meeting of March 19, 2001 eliminated reference to par value in the Company's bylaws.

On the date of filing of this Registration Document:

- there are no securities which do not represent share capital;
- the Company has not been informed of any pledging of shares;
- there are no other securities granting access to the Company's share capital;
- there are no options on the share capital of any Group member.

7.3.2 Share buyback program – Description of the share buyback program

7.3.2.1 Information on the conduct of the share buyback program

The Ordinary and Extraordinary Shareholders' Meetings of May 30, 2017 and May 17, 2018 authorised the Board of Directors to buy back shares of the Company in accordance with articles L.225-209 *et seq*. of the French Commercial Code.

At December 31, 2018, the Company held 569,443 shares, *i.e.* 0.48% of the share capital.

Summary of transactions in treasury shares between January 1, 2018 and December 31, 2018

Pursuant to the authorisations given by the Annual Shareholders' Meetings of May 30, 2017 and May 17, 2018:

- Under the liquidity agreement consistent with the AMAFI Code of Ethics, approved by the AMF and entered into between the Company and Natixis, subsequently transferred as from July 2, 2018 to ODDO BHF, performed the following transactions in its capacity as investment services provider.

Shares purchased	740,394
Average purchase price	€70.09
Shares sold	718,155
Average selling price	€69.81
Fees and commissions	0
Treasury shares held at December 31, 2018	27,156
Value of shares held at the end of the year based on their average purchase price*	€1,903,417
Carrying amount at December 31, 2018	€1,561,470
Nominal value of shares	/
Purpose of transactions	Maintaining an orderly market
Percentage of treasury shares held at year-end	0.02%

* *Calculated at average purchase price following stock split (€70.09).*

The shares purchased by Natixis and ODDO BHF were acquired exclusively to maintain a liquid market in the Company's shares through market-making transactions carried out by an independent investment services provider under a liquidity agreement that complies with the AMAFI Code of Ethics approved by the AMF.

- Under an agency agreement entered into with Société Générale with the sole objective of delivering shares upon the exercise of rights in connection with free share grants to employees of the Company or companies within the Group, pursuant to the authorisations granted by the Shareholders' Meeting.

Shares purchased	370,000
Average purchase price	€64.79
Shares sold	0
Average selling price	/
Treasury shares held at December 31, 2018	542,287
Value of shares held at the end of the year based on their average purchase price*	€31,260,334
Carrying amount at December 31, 2018	€31,181,502
Nominal value of shares	/
Purpose of transactions	Delivery of shares upon the exercise of rights in connection with share grants to employees
Percentage of treasury shares held at year-end	0.46%

* *Calculated based on average purchase price for all treasury shares, i.e. €57.65.*

Use of derivatives

The Company did not use derivatives as part of this share buyback program and there were no open positions to buy or sell derivatives at the date this Registration Document was filed.

7.3.2.2 Description of the new share buyback program

Pursuant to article 241-2 of the AMF General Regulations, this paragraph is a description of the buyback program to be put to the Combined General Meeting of May 23, 2019 for approval.

Buy-back program objectives

Under the share buyback program, purchases will be made based on the following objectives: (i) maintaining a buoyant secondary market or a liquid market in the bioMérieux shares through an independent investment service provider, operating under a liquidity agreement that complies with market practice as approved by the AMF; (ii) ensuring the hedging of stock option plans and/or share grant or purchase plans (or similar) for Group employees and/or corporate officers as well as of any granting or sale of shares under the Group's Employee Savings Plan (or similar plan providing comparable economic benefits), Company profit-sharing schemes and/or any other granting of shares to Group employees and/or corporate officers; (iii) reducing the Company's share capital by cancelling shares within legal limits; (iv) hold shares purchased and swapped again at a later date or expansion investments or be paid out as part of any external expansion operations; (v) implementing any market practice that is accepted or is to be accepted by market authorities.

Summary of the main features of the buy-back program

- Relevant securities: ordinary shares;
- Maximum stake proposed to the Annual Shareholders' Meeting of May 23, 2019: 2019% of the number of shares making up the Company's share capital (at any time, as this percentage applies to a share capital adjusted according to the transactions affecting it);
- Maximum buyback percentage of shares purchased by the Company to be held and subsequently delivered as payment or in exchange as part of a merger, spin-off or contribution: 5%;
- Maximum unit purchase price: the unit purchase price must not exceed €150 per share (excluding acquisition costs);
- Total cost of program: the maximum theoretical cost of implementing this program is €1,775,418,300 (maximum theoretical amount not taking into account the shares owned by the Company). However, the Board could adjust the aforementioned purchase price in the event of a change in the share's par value, of an increase in capital through the capitalisation of reserves and granting of free shares, of share splits or consolidation, of capital redemption or reduction, of the distribution of reserves or other assets, or of any other transactions affecting equity, in order to take into account the incidence of such transactions on the share value.

Breakdown per objective of shares held by the Company as of February 28, 2019

At February 28, 2019, the Company's share capital is made up of 118,361,220 shares. At this date, the Company held 558,409 shares, *i.e.* 0.47% of the share capital:

- of which 16,122 shares under the liquidity agreement with ODDO BHF. The Company effectively entered into a liquidity agreement with ODDO BHF. The agreement, which is compliant with market practice as approved by the AMF, took effect on July 2, 2018. The shares purchased by ODDO BHF were acquired exclusively to maintain a liquid market in the Company's shares through market-making transactions carried out by an independent investment service provider under a liquidity agreement that complies with the AMAFI Code of Ethics approved by the AMF;
- of which 542,287 shares under an agency agreement entered into with the Natixis companies and Société Générale with the sole objective of delivering shares upon the exercise of rights in connection with free share grants to employees of the Company or companies within the Group.

The purchase, sale and transfer of the aforementioned securities was carried out to meet two of the program's objectives approved by the Annual Shareholders' Meetings of May 30, 2017 and May 17, 2018, *i.e.* maintaining a liquid market in the Company's shares through market-making transactions carried out by an independent investment service provider under a liquidity agreement that complies with the AMAFI Code of Ethics, approved by the AMF and delivering shares upon the exercise of rights in connection with free share grants to employees of the Company or companies within the Group. The Company has not cancelled any shares in the last 24 months and acquired no shares prior to April 16, 2014, date on which the new share buyback program under the new regulation from the European Market Abuse Directive entered into force.

The Company has not used derivatives as part of this share buyback program and there have been no open positions to buy or sell derivatives at the date this buyback program description was published.

Term of program

In compliance with the provisions of article L.225-209 of the French Commercial Code and the draft motion to be put to the Annual General Meeting on May 23, 2019, this buy-back program may be implemented over an eighteen-month period from the Annual Shareholders' Meeting on May 23, 2019, until November 23, 2020.

7.3.3 Other securities

In addition to the shares issued by the Company as stated in section 7.3.1 and the free share grants (see section 7.4.3), the Company carried out a bond issue, placing €300 million in seven-year bonds (maturing on October 14, 2020) with institutional investors. The bonds pay interest at an annual rate of 2.875%.

The bonds were listed on Euronext Paris in October 2013 but have not and will not be registered under the US Securities Act of 1933, as amended (the Securities Act). The bonds are being offered outside the United States, in accordance with the regulations of the Securities Act, and may not be offered, sold or delivered within the United States or to, or for the account of, US persons.

This bond issue enabled bioMérieux to (i) lengthen the average maturity of its debt under favourable financial conditions, (ii) diversify its sources of financing in addition to its existing syndicated lines of credit, and (iii) contribute to funding the acquisition of the US company BioFire.

7.3.4 Authorised unissued capital

TABLE SUMMARISING VALID AUTHORISATIONS

Relevant securities	Date and duration of the authorisation	Maximum nominal amount of capital increase	Amount authorized and used
Issue with pre-emptive subscription rights Capital increase with pre-emptive subscription rights through the issue of shares or securities (20th resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	Maximum nominal amount of €4,210,280 for capital increases[(a)] and of €1 billion for issues of debt securities[(b)]	N/A
Issue without pre-emptive subscription rights Capital increase without pre-emptive subscription rights through the issue of shares or securities (21st resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	Maximum nominal amount of €4,210,280 for capital increases[(a)] and of €1 billion for issues of debt securities[(b)]	N/A
Capital increase without pre-emptive subscription rights as part of an offer provided for in article L.411-2 II of the French Monetary and Financial Code (*Code monétaire et financier*) (22nd resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	Maximum nominal amount of 20% of the share capital per year[(a)] and a maximum of €1 billion for issues of debt securities[(b)]	N/A
Increase in the number of shares issued in the event of a capital increase (24th resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	15% of the initial issue, up to the amounts authorised by the 20th to 22nd resolutions[(a)(b)]	N/A
Capital increase without pre-emptive subscription rights as consideration for contributions in kind made to the Company (25th resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	Maximum nominal amount of 10% of the share capital (as of the implementation of the authorisation)[(a)]	N/A
Capital increase through the capitalisation of additional paid-in capital, reserves, profit or other items (26th resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	Maximum nominal amount of €4,210,280[(a)] as of the AGM of May 30, 2017	N/A
Capital increase without pre-emptive subscription rights as part of the issue by subsidiaries or by the parent company of securities giving access to the Company's securities (27th resolution)	AGM of May 30, 2017 26 months, *i.e.*, until July 29, 2019	Maximum nominal amount of €4,210,280 for capital increases[(a)] and maximum amount of €1 billion for issues of debt securities[(b)]	N/A
Capital increase reserved for employees participating in an employee savings plan (PEE) (17th resolution)	AGM of May 17, 2018 26 months, *i.e.*, until July 17, 2020	Maximum nominal amount of 3% of share capital at the date of the AGM of May 17, 2018	N/A
Grants of share purchase and/or subscription options (16th resolution)	AGM of May 17, 2018 38 months , i.e., until July 17, 2021	0.95% of the existing capital at the grant date	N/A
Grant of shares (existing or to be issued) (15th resolution)	AGM of May 17, 2018 38 months, *i.e.*, until July 17, 2021	0.95% of the capital (as of the date of the AGM)	113,685 shares[(c)] (0.09% of the share capital)

(a) This percentage/amount must be offset against the total authorised capital increase of €4,210,280 (nominal amount).
(b) This amount must be offset against the aggregate capital increase through the issue of debt securities of €1 billion (nominal amount).
(c) Board of Directors meetings of September 4 and December 20, 2018.

7.3.5 bioMérieux shares in 2018

7.3.5.1 bioMérieux equity market

bioMérieux shares have been traded publicly since July 6, 2004 on the CAC Mid 60®, SBF 120®, CAC Mid & Small®, CAC All-tradable® and CAC All-Share® French market indices. In addition, bioMérieux was included in new indices during 2017, specifically MSCI France Index and STOXX®Europe 600. The Company's shares are listed on compartment "A" of the Eurolist market and are eligible for deferred settlement service (*Service de Règlement Différé* – SRD).

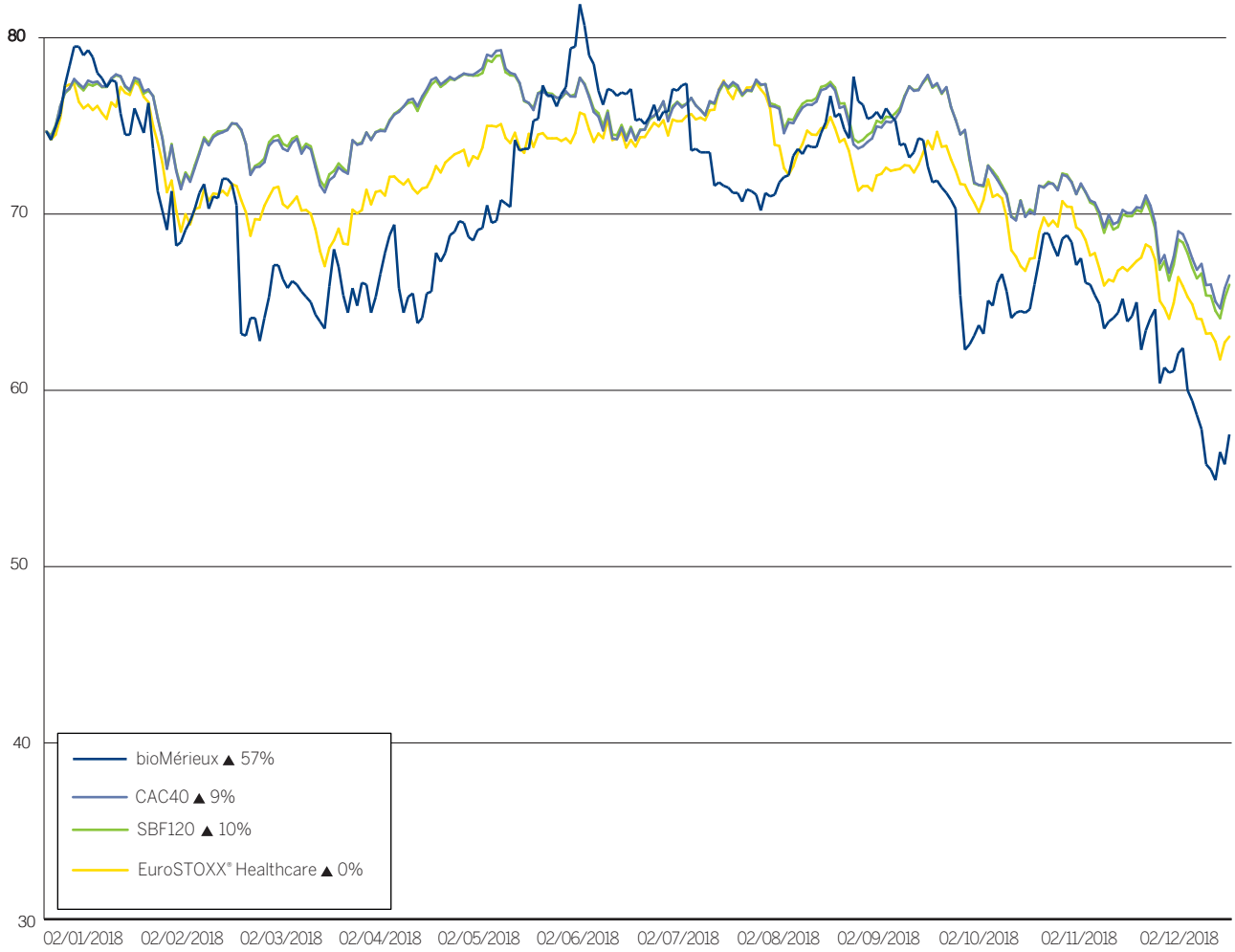
bioMérieux's social, Corporate and environmental commitment has been recognised for a number of years by extra-financial rating agencies that evaluate its CSR performance and have included it in their SRI indices (Socially Responsible Investments) such as the Ethibel Forum (Ethibel Sustainability India (ESI) Excellence Europe), FTSE Russell (FTSE4Good India), Vigeo Eiris, EcoVadis, OEKOM Research, CDP(Carbon Disclosure Project) and Corporate Knights Global 100 India.

At December 31, 2018, the closing price for the bioMérieux share was €57.50 (€74.69 at December 31, 2017) and the Company's market capitalisation was €6.8 billion. In 2018, 30 of the Company's shares were traded on Euronext 28,750,521 in 2017.

During 2018, the average liquidity of the bioMérieux share was as follows (source: Thomson Reuters Eikon):

- average closing price: €70.09;
- average daily trading volume: 120,436 shares;
- average trading day: approximately €8.4 million.

7.3.5.2 Change in bioMérieux share price in euros during 2018 compared to benchmark indices (Code: BIM – ISIN Code: FR0013280286)



	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Low	74.20	63.20	62.80	63.80	67.30	75.40	71.20	70.20	71.80	62.30	62.30	54.90
High	79.50	73.70	68.00	69.40	75.30	81.90	77.40	76.70	77.80	71.90	68.90	64.60
Closing	76.30	63.20	67.00	65.60	75.30	77.10	71.20	75.70	71.80	67.40	62.30	57.50

Source: Thomson Reuters Eikon, data extracted on 01/09/2018.

7.3.5.3 bioMérieux historical share price performance

Period	High *(in euros)*	Low *(in euros)*	Closing *(in euros)*
2013	26.16	23.44	25.42
2014	29.14	24.53	28.58
2015	36.77	28.10	36.63
2016	47.45	32.67	47.30
2017	74.80	47.52	74.69

Source: Thomson Reuters Eikon, price recalculated after stock split.

7.4 Main shareholders

7.4.1 History of the ownership structure

The table below shows the Company's ownership structure on the dates indicated.

	Shareholders Dec. 31, 2018				Shareholders Dec. 31, 2017				Shareholders Dec. 31, 2016			
Shareholders[a]	Number of shares	% of capital	Number of theoretical voting rights[f]	% of voting rights	Number of shares	% of capital	Number of theoretical voting rights[f]	% of voting rights	Number of shares	% of capital	Number of theoretical voting rights[f]	% of voting rights
InstitutMérieux[b]	69,720,270	58.90	139,440,540	70.84	69,720,270	58.90	139,440,540	70.82	23,240,090	58.90	46,480,180	70.85
GIMD[c]	6,040,410	5.10	12,080,820	6.14	6,040,410	5.10	12,080,820	6.14	2,013,470	5.10	4,026,940	6.14
Sofina SA	2,506,857	2.12	5,013,714	2.55	2,506,857	2.12	4,686,669	2.38	835,619	2.12	1,562,223	2.38
Employees[d]	555,220	0.47	1,050,070	0.53	553,720	0.47	1,048,570	0.53	189,790	0.48	354,740	0.54
Treasury stock[e]	569,443	0.48	0	0.00	234,074	0.20	0	0.00	106,506	0.27	0	0
Public	38,969,020	32.92	39,266,751	19.95	39,305,889	33.21	39,627,939	20.13	13,068,265	33.13	13,180,081	20.09
TOTAL	**118,361,220**	**100**	**196,851,895**	**100**	**118,361,220**	**100**	**196,884,538**	**100**	**39,453,740**	**100**	**65,604,164**	**100**

(a) Only the shareholders representing more than 5% of the capital are named in this table except for Sofina SA, whose CEO, Harold Boël is a director of the Company. All other shareholders are included under Public.
(b) Institut Mérieux is the holding company of the Mérieux family.
(c) Groupe Industriel Marcel Dassault.
(d) This line includes employee share ownership through the OPUS CLASSIC Corporate mutual fund ("FCPE").
(e) Since July 2, 2018, shares were held pursuant to the liquidity agreement with ODDO BHF.
(f) Theoretical voting rights are identical to actual voting rights.

Employee share ownership has not changed materially since December 31, 2017. Differences between the number of shares and the number of voting rights reflect the existence of double voting rights. As of the date of this Registration Document, all shares held by Institut Mérieux and GIMD have double voting rights.

On September 19, 2017, bioMérieux carried out a 1 for 3 stock split, dividing the par value per share by 3 (see section 7.3.1).

To the Company's best knowledge, no other shareholder directly or indirectly holds, alone or in concert, more than 5% of the Company's share capital or voting rights.

7.4.2 Control of the issuer

Institut Mérieux, which is the holding company owned by the Mérieux family through Compagnie Mérieux Alliance, held 58.90% of the share capital and 70.84% of the voting rights of the Company at December 31, 2018. Institut Mérieux is therefore able to adopt all the resolutions submitted for the approval of shareholders at Shareholders' Meetings.

Despite Institut Mérieux's position as the majority shareholder, the Company, which is managed by a Board of Directors, seven of whose ten members are independent and which has assessed its own 6 performance to be satisfactory (see section 4.2.5.5), considers that there is no risk that control would be exercised in an abusive manner.

To the best of the Company's knowledge, there are no shareholders' agreements, parties acting in concert and/or other joint actions, nor any other agreement whose implementation could result in a change of control of the Company.

7.4.3 Employee share ownership

7.4.3.1 Statement of employee profit-sharing

As of December 31, 2018, employees held:

- 555,220 shares under the OPUS Classic Corporate mutual fund ("FCPE"), representing 0.47% of the share capital;
- a total of 166,964 registered shares, or 0.21% of capital; at December 31, 2017, registered shares constituted 0.14% of capital.

In 2018, the Company proposed new employee share ownership plans to its employees (outside of France and the United States) under which, once authorised by the Board of Directors, it offered the opportunity to buy bioMérieux shares at a discount and with a contribution subject to subscription for a certain number of shares. The plan established in 2018 no longer provides for share grant plans.

In the United States, a bioMérieux Inc. phantom share plan was implemented in 2015 and renewed in 2016 and 2017. The employees are not shareholders of the Company as such, but the plan makes it possible to link their individual contributions more closely to the Company's performance. BioFire also launched a similar plan in 2016 and 2017. No new plans were established in 2018.

7.4.3.2 Special report on free share grants and stock options

This report was prepared in accordance with the provisions of articles L.225-184 and L.225-197-4 of the French Commercial Code.

The Company does not currently have any stock option plans. No stock options were granted to corporate officers or employees by the Company or Group companies in 2018. At the date of this report, no stock options are exercisable.

The Board of Directors granted 169,685 free shares in 2018 under share grant plans set up by the Board – after consulting with the Human Resources, Appointment and Compensation Committee – pursuant to the authority granted to it by the Ordinary and Extraordinary Shareholders' Meetings of May 26, 2016.

Accordingly, the Company did not grant any free shares to corporate officers for their positions within the Company or in a controlled company within the meaning of article L.233-16 of the French Commercial Code (*Code de commerce*).

The table below sets forth the free shares granted at the end of the 2018 financial year:

Grant date	Number of shares granted	Share price *(in euros)*
February 27, 2018	21,000	70.50
May 17, 2018	35,000	70.50
September 4, 2018	105,273	74.80
December 20, 2018	8,412	55.80

The table below shows the number of free shares granted and not fully vested at the end of 2018:

Grant date	Share price *(in euros)*	Grant date Company employing the beneficiary	Number of shares granted	Beneficiary category
February 27, 2018		BioFire Diagnostics LLC	21,000	*7 Global Leaders*
TOTAL GLOBAL LEADER BFX 2018 PLAN	**70.50**		**21,000**	**7 Global Leaders**
May 17, 2018		bioMérieux SA	20,000	*1 Global Leader*
TOTAL EXCOM 2018 PLAN	**70.50**		**20,000**	**1 Global Leader**
May 17, 2018		bioMérieux Shanghaï Co.	15,000	*1 Global Leader*
TOTAL GLOBAL LEADER (A) 2018 PLAN	**70.50**		**15,000**	**1 Global Leader**
		BioFire Diagnostics LLC	4,600	16 employees
		bioMérieux Algeria EURL	350	1 employee
		bioMérieux Argentina SA	1,112	2 employees
		bioMérieux Brasil SA Industria de Productos Laboratorias (Ltda)	1,425	4 employees
		bioMérieux Canada Inc.	225	1 employee
		bioMérieux Chile Sp	700	1 employee
		bioMérieux China Limited Ltd	700	1 employee
		bioMérieux Diagnostik AS	500	2 employees
		bioMérieux Moyen-Orient Fz-LLC	225	1 employee
		bioMérieux Deutschland GmbH	150	1 employee
		bioMérieux Hellas SA	962	1 employee
		bioMérieux Inc.	20,632	41 employees
		bioMérieux India Pvt Ltd	2,250	9 employees
		bioMérieux Italia spA	350	1 employee
		bioMérieux Japan Ltd	700	1 employee
		bioMérieux Korea Co, Ltd	225	1 employee
		Malaysia Sdn. Bhd	150	1 employee
		bioMérieux Mexico SA de CV	150	1 employee
		bioMérieux Polska Sp Zoo	150	1 employee
		bioMérieux Portugal Lda	350	1 employee
		bioMérieux Russia LLC	350	1 employee
		bioMérieux SA	60,318	101 employees
		bioMérieux Shanghai Biotech Co.	500	2 employees
		bioMérieux Singapore Ltd	1,500	4 employees
		bioMérieux EspanaSA	1,500	4 employees
		bioMérieux SSC Europe SpZoo	700	1 employee
		bioMérieux UK Ltd.	350	1 employee
September 4, 2018		bioMérieux Shanghai co. Ltd	4,149	9 employees
TOTAL GLOBAL LEADER (B) 2018 PLAN	**74.80**		**105,273**	**211 employees**
		BioFire Diagnostics LLC	6,250	35 employees
		bioMérieux Diagnostik AS	150	1 employee
		bioMérieux Inc.	350	1 employee
		bioMérieux SA	962	1 employee
December 20, 2018		Suzhu Hybiome Biomedical Co. Ltd	700	1 employee
TOTAL GLOBAL LEADER (B) 2018 PLAN	**55.80**		**8,412**	**39 employees**
GRAND TOTAL			**169,685**	**509**

Vesting period

In the 2018 free share grant plan, a three or four-year vesting period applies from the date of the decision to grant the shares before the beneficiary becomes the owner of the shares granted.

Eligibility and performance conditions

During the financial year, the Board of Directors decided, at the recommendation of the Human Resources, Appointment and Compensation Committee, to grant free shares that are fully vested, (i) subject to a continuous employment condition and (ii) subject to continuous employment and performance conditions.

Delivery of shares

At the end of the vesting period and provided that the vesting conditions and criteria set by the Board of Directors are met, the Company will transfer to the beneficiary the number of free shares granted by the Board of Directors.

Lock-up period

2018 share grant plans have no lock-up period.

Beneficiaries' rights

If the shares are not transferable, like any other shareholder, the beneficiaries of vested shares are entitled to exercise all other rights attached to such shares during the lock-up period, including:

- pre-emptive subscription rights;
- right to information;
- right to attend Shareholders' Meetings;
- voting rights;
- right to dividends and, if applicable, distributed reserves.

7.4.3.3 History of free share grants (table 10)

The table below summarises, at December 31, 2018, all the terms and conditions of the free share grants and the performance share grants, subject to the fulfilment of the presence conditions and, for certain grants, the performance criteria laid down by the Company's Board of Directors:

Date of Annual General Meeting	Name of plan	Date of Board meeting	Total number of free shares granted	Number of beneficiaries	Of which to corporate officers	Acquisition date of the shares	End date of the lock-up period	Cumulative number of forfeited or lapsed shares	Free shares granted during the year	Free shares remaining at the end of the year
May 17, 2018	Global Leader [c] 2018 Plan	December 20, 2018	8,412	39	0	December 20, 2021	December 20, 2021	0	0	8,412
May 17, 2018	Global Leader [b] 2018 Plan	September 4, 2018	105,273	211	0	September 4, 2021	September 4, 2021	0	0	105,273
May 17, 2018	Global Leader [a] 2018 Plan	May 17, 2018	15,000	1	0	May 17, 2022	May 17, 2022	0	0	15,000
May 17, 2018	EXCOM 2018 Plan	May 17, 2018	20,000	1	0	May 17, 2022	May 17, 2022	0	0	20,000
May 26, 2016	Global Leader BFX 2018 Plan	February 27, 2018	21,000	7	0	February 27, 2021	February 27, 2021	0	0	21,000
May 26, 2016	OPUS International Plan	December 15, 2017	7,716	417	0	December 15, 2021	December 15, 2021	502	0	7,214
May 26, 2016	Global Leader Plan	December 15, 2017	600	1	0	December 15, 2020	December 15, 2020	0	0	600
May 26, 2016	Global Leader[a] 2017 Plan	February 28, 2017	9,300	2	0	February 28, 2021	February 28, 2021	0	0	9,300
May 26, 2016	Global Leader[b] 2017 Plan	February 28, 2017	1,500	1	0	February 28, 2021	February 28, 2020	0	0	1,500
May 26, 2016	Global Leader 2017 Plan	February 28, 2017	15,000	1	0	February 28, 2020	February 28, 2021	0	0	15,000
May 26, 2016	Global Leader 2017 Plan	February 28, 2017	6,000	1	0	February 28, 2020	February 28, 2020	0	0	6,000
May 26, 2016	Global Leader 2016 Plan	December 15, 2016	75,000[a]	9	0	December 15, 2019	December 15, 2019	0	0	75,000
May 26, 2016	Global Leader 2016 Plan	May 26, 2016	264,600[b]	55	0	May 26, 2019	May 26, 2019	23,400	0	241,200
May 26, 2016	Corporate officer Plan	May 26, 2016	60,000[a]	1	1	May 26, 2019	At the end of the term	0	0	60,000
May 28, 2015	Global Leader 2015 Plan	March 1, 2016	2,700	3	0	March 1, 2020	March 1, 2020	1,800	0	900
May 28, 2015	Global Leader 2015 Plan	December 17, 2015	3,600	3	0	December 17, 2019	December 17, 2019	0	0	3,600
May 28, 2015	Expatriates Plan	August 28, 2015	49,500	26	0	August 28, 2019	August 28, 2019	4,500		45,000
May 29, 2013	US Plan	September 2, 2014	6,000	1	0	September 2, 2018	September 2, 2018	0	6,000	0
May 29, 2013	Global Leader 2014 Plan	May 28, 2014	9,000[a]	1	0	May 28, 2018	May 28, 2018	0	9,000	0

(a) Free shares granted subject to performance criteria.
(b) Free shares granted subject to performance criteria except for 24 shares subject solely to continuous employment criteria.
(c) Additional two-year period for French beneficiaries.

Performance share grants to employees during 2018

In 2018, the ten non-corporate officer employees who were granted the most performance shares received a total of 57,000 shares.

7.4.4 Shares and stock options held by administrative, management and supervisory bodies

N/A.

7.4.5 Other information on the shareholders

7.4.5.1 Crossing of thresholds

Obligations of the shareholders

Shareholders have a legal obligation to notify the Company and the French financial markets authority (*Autorité des marchés financiers* - AMF) by letter when a legal threshold is crossed, specifying in particular their fractional ownership of the Company's shares and voting rights, within the legal deadline.

Furthermore, Article 10 of the Company's bylaws requires individuals or legal entities, acting alone or in concert, who directly or indirectly own (within the meaning of articles L.233-7 *et seq*. of the French Commercial Code) 1% of the Company's capital or voting rights, and thereafter for each additional 1%, to report to the Company by registered letter with acknowledgement of receipt, within five trading days of the date the threshold was crossed, the total number of shares and voting rights held, as well as the number of securities carrying immediate or future entitlement to shares and the potential voting rights attached thereto.

The same obligation applies whenever ownership of shares or voting rights falls below each of the aforementioned thresholds.

In the event of failure to comply with these requirements, the shares in excess of the relevant threshold will be stripped of voting rights for all Shareholders' Meetings held within the two-year period from the date when the omission is remedied, at the request of one or more shareholders holding at least 5% of the Company's capital or voting rights, as evidenced in the minutes of the Shareholders' Meeting.

Intermediaries acting as holders of securities for non-resident shareholders, pursuant to article L.228-1 of the French Commercial Code, are required to report increases or decreases if their aggregate holdings exceed or fall below the above thresholds, without prejudice to the reporting obligations of the securities' holders.

Crossing of thresholds declared to the Company in 2018

AXA Investment Managers reported:

- on May 25, 2018 that it had fallen below the disclosure threshold of 2% of the capital;
- on June 25, 2018 that it had fallen below the disclosure threshold of 2% of the capital.

Furthermore, since the beginning of 2018, the Company has received a declaration that a disclosure threshold was crossed from Amundi (Amundi Asset Management, Société Générale Gestion, Etoile Gestion, CPR Asset Management and BFT Investment Managers) which reported:

- on January 16, 2018 that it had exceeded the disclosure threshold of 1% of the capital;
- on May 07, 2018 that it had fallen below the disclosure threshold of 1% of the capital;
- on May 15, 2018 that it had exceeded the disclosure threshold of 1% of the capital;
- on May 17, 2018 that it had fallen below the disclosure threshold of 1% of the capital;
- on May 18, 2018 that it had fallen below the disclosure threshold of 1% of the capital;
- on May 25, 2018 that it had fallen below the disclosure threshold of 1% of the capital;
- on May 28, 2018 that it had exceeded the disclosure threshold of 1% of the capital;
- on October 10, 2018 that it had fallen below the disclosure threshold of 1% of the capital.

Furthermore, since the beginning of 2019, the Company has not received any declaration that a disclosure threshold was crossed.

7.4.5.2 Trading in the Company's shares by senior executives or by their close relations

The Company has been informed that the following securities transactions were carried out by senior executives in 2018 and reported in accordance with the procedures set forth by the French financial markets authority (AMF):

- number of shares sold: 10,000.

  In this case, Stefan Willemsen, Executive Vice President, sold 10,000 shares on June 1, 2018 for an amount of €755,844:
- number of shares purchased: N/A;
- number of shares subscribed: N/A;
- number of shares exchanged: N/A.

7.5 Provisions delaying a change of control

The following factors contribute to delaying, if needed, a change of control:

- ownership structure: bioMérieux is a controlled company (see sections 7.4.1 and 7.4.2);
- existence of double voting rights (see section 7.2.3.3);
- bylaw restrictions on the exercise of voting rights and share transfers: crossing of thresholds (see section 7.4.5.1);
- in addition, no restrictions on the exercise of voting rights and share transfers or clauses to agreements have been brought to the Company's attention;
- control mechanisms within the framework of an employee share ownership plan: a mutual fund, Opus Classic, has been set up in connection with the share capital increase reserved for bioMérieux employees subsequent to the initial public offering of its shares;
- powers granted to the Board of Directors to buy back shares: the Shareholders' Meeting of May 26, 2016 granted the Board of Directors the necessary powers to launch a share buyback program (see section 7.3.2);
- authorisations and powers granted by the Shareholders' Meeting to the Board of Directors regarding the issuance of shares (see section 7.3.4);
- change-of-control clauses: some of the agreements to which the Company is party may be amended or terminated in the event of a change of control.

PRINCIPAL AGREEMENTS INCLUDING A CHANGE-OF-CONTROL CLAUSE

Nature of agreement	Contracting party	Purpose
Loan agreement	Eight banks	Undrawn syndicated loan of €500 million, which was the subject of an addendum in January 2019 extending its maturity to January 2024 (initially a five (5) year loan with two (2) options to extend by one year, both of which have been exercised).
Bonds	Public	Bond issue of €300 million, maturing in October 2020
Real estate lease financing agreements	Two financial institutions	Financing of the extension of the Marcy l'Étoile site for €45 million for a period of 12 years
Licence agreement	Roche Diagnostics	NT-proBNP
Licence agreement	Paul Sabatier University/Pr. Serre	Filaggrin
Licence agreement	Wellcome Trust Limited	B-Raf genetic mutations associated with cancer

bioMérieux is not aware of any other factors likely to have an impact in the event of a public offer of its securities.

7.6 Dividend policy

The distribution policy is decided in light of the yearly analysis of the Company's profits, its financial position and other factors that the Board of Directors considers relevant.

Dividends that remain unclaimed five years after their payment date are time-barred and remitted to the French government.

At the Shareholders' Meeting to be held on May 23, 2019, the Board of Directors will recommend a dividend of €0.35 per share, representing a total of €41.4 million to be paid on June 6, 2019.

The table below presents the dividends paid by the Company for each of the past three years.

Year ended	Dividends paid *(in euros)**	Dividend per share *(in euros)**
Dec. 31, 2017	40,242,814.80	0.34
Dec. 31, 2016	39,453,740.00	1.00
Dec. 31, 2015	39,453,740.00	1.00

* *The Company did not receive any dividends on treasury shares held on the ex-dividend date. The corresponding dividend amount was allocated to "retained earnings". Individuals domiciled in France for tax purposes benefit from a tax deduction on the annual dividend in accordance with paragraph 2 of Article 158.3 of the French Tax Code (Code général des impôts).*

7.7 Main related-party transactions

7.7.1 Description of the principal related parties

- Institut Mérieux commits its experience in biology to serving medicine and public health across the globe. In order to fight infectious diseases and cancers, it conceives of and develops new global and interdisciplinary approaches in the fields of diagnostics, immunotherapy, food safety and nutrition. In addition to the R&D programs in place within each of its companies, Institut Mérieux has pioneered a unique system through which it aims to support and accelerate scientific innovation.

For several years now, Institut Mérieux and its companies have sought to develop international partnerships with public and private academic research institutions and the hospital community. An example of this strategy is the joint unit founded by Institut Mérieux and Fudan University Shanghai Cancer Center whose research focuses on tumour and immune markers.

Additionally, Institut Mérieux actively supports biological research in France and promotes such research around the world. Institut Mérieux is a founding member of LyonBioPôle, a global competitiveness cluster in the field of biology, and BIOASTER, a technology research institute whose work focuses on infectious diseases. It carries out interdisciplinary R&D activities at the crossroads of fundamental research and manufacturing. Collaborative projects are carried out in the four key areas of microbiology, health and infectious diseases: vaccines, antibiotics, diagnostics and microbiota. Every such project has access to top academic researchers, a team of highly qualified scientists and engineers and cutting-edge technological equipment and infrastructure.

As part of its innovation policy, Institut Mérieux has set up the Mérieux Research Grants program with the aim of supporting doctors and scientists around the world whose projects have the potential to lead to conceptual or technological breakthroughs. This ambitious program of calls for projects is designed to give Institut Mérieux companies access to groundbreaking scientific, clinical and technological knowledge upon which new approaches in diagnostics, therapy and nutrition will be developed. The purpose of these research agreements is to finance particularly innovative projects, in both public and private laboratories, in the strategic fields in which Institut Mérieux operates. Following a rigorous selection process, the winning applicants receive financing for two years. In the event that their projects are successful, Institut Mérieux has the right of first refusal for entering into a partnership. Since the creation of the Mérieux Research Grants program in 2009, more than 100 grants have been awarded in almost 20 countries, creating an international community of highly qualified scientists and physicians from Europe, the United States, Latin America, the Middle East and Asia.

Lastly, in an effort to provide global responses to the major public health challenges, Institut Mérieux has launched interdisciplinary research programs that harness the specific and complementary expertise of its companies, leveraging some of the work carried out by Mérieux Research Grant researchers as well as partnerships with international research networks. These programs concern five strategic areas: neglected infectious diseases (particularly tuberculosis), antibiotic resistance and hospital-associated infections, host response analysis with regard to infectious diseases and cancer, the relationship between microbiota and health, and technological developments in diagnostics.

- The Fondation Christophe et Rodolphe Mérieux, under the aegis of the Institut de France, is the reference shareholder of Institut Mérieux, holding one third of its shares (see section 3.1.2).
- An independent family foundation created in 1967 and recognised as a public utility, the Fondation Mérieux fights infectious diseases in developing countries (see section 3.1.2).
- Mérieux NutriSciences is dedicated to preventing food-related health risks and, more widely, those as a result of using everyday products. Involved in food safety and nutrition for more than 45 years, initially through the company Silliker, Mérieux NutriSciences has expanded its expertise to all industrial sectors whose activity affects the health of consumers: water and environment, pharmaceutical and medical products, cosmetics, consumer goods and agrochemicals. Across the world, Mérieux NutriSciences teams offer companies analysis, audit and consultancy services throughout the value chain. In addition, through being part of Institut Mérieux, Mérieux NutriSciences brings a scientific and medical dimension to all of its activities, and is developing a new approach to research in the field of nutrition, putting the consumer and the patient at the heart of its activities. Through the company Biofortis, Mérieux NutriSciences teams support health and nutrition industry companies in their R&D programs, by providing scientific proof of their products' effectiveness. In particular, Biofortis has a microbiome analysis platform for conducting its research in the area of gastrointestinal health.

7.7.2 Service agreements

None of the members of the administrative, management or supervisory bodies has a service agreement with the Company or one of its subsidiaries providing for the payment of benefits. There are service agreements between bioMérieux and certain Group companies that have executive officers in common, as described below.

7.7.3 Description of transactions

The Statutory Auditors' report on related-party agreements for the year ended 2017 is presented in section 7.7.4 of the 2017 Registration Document, and the description of transactions with related parties are presented in section 6.1.2 (Note 29) and in section 6.2.2 (Note 22.3) of the 2017 Registration Document filed with the French financial markets authority (*Autorité des marchés financiers* - AMF) on March 14, 2018.

For 2018, transactions with related parties are described in this Registration Document in section 6.1.2 (Note 30) and section 6.2.2 (Note 21.3).

In 2018, unlike in previous years, no agreement outside the scope of related-party agreements as defined in articles L.225-38 *et seq*. of the French Commercial Code remained in force. The Statutory Auditors' special report on related-party agreements for the year ended December 31, 2018 is presented below.

Three new agreements were authorised in 2018, the terms and conditions of which are described in the Statutory Auditors' special report. They will be submitted for approval to the Annual General Meeting of May 23, 2019.

- The first involves a contract assigning an employee of Silliker Group Corporation France (Mérieux NutriSciences) to bioMérieux. The reason for this agreement is the Company's interest in adopting, with Mérieux NutriSciences, a shared commercial approach to key strategic customers, in order to improve the effectiveness of the two companies' respective product and service offerings.
- The second involves the creation of a new company, GNEH, with Institut Mérieux and increasing the capital of GNEH by contributing bioMérieux's and Institut Mérieux's shares in GeNeuro. The reason for this project is the Group's interest in putting in place a dedicated structure and governance arrangements, in this case TSGH, in order to ensure that knowledge is shared to support a consistent strategy. This is in the light of the technological, scientific and financing challenges associated with the various immunotherapy activities carried out by the Group through its subsidiaries or equity investments.
- The third involves an amendment to the service contract signed on April 23, 2015, with Institut Mérieux. The purpose of this amendment is to change (i) the list of services provided, by adding the internal audit (according to the tasks actually carried out on behalf of bioMérieux) and risk and compliance functions, which will henceforth be performed by the Institut Mérieux and re-billed to bioMérieux from January 1, 2019, and (ii) the rules for re-billing services provided by Institut Mérieux in its capacity as the Group's lead holding company. The margins that apply are modified in accordance with the OECD's rules, by applying an 8% margin to all expenses incurred by Institut Mérieux except for (a) expenses incurred by Institut Mérieux, at the request of another entity, for practical and administrative reasons (pass-through costs) which will continue to be billed at cost price and (b) expenses incurred by Institut Mérieux in order to carry out specific services that are purely administrative and to the benefit of a Group entity and that will be re-billed applying a 5% margin. Furthermore, for the sake of transparency and in order to allow bioMérieux to define its own re-billing rules for its subsidiaries, Institut Mérieux bills bioMérieux for all of the defined services to be paid for by bioMérieux and its subsidiaries, according to the applicable allocation criteria, so that bioMérieux can re-bill its subsidiaries directly, without a mark-up. Accordingly, in the 2018 financial year, Institut Mérieux billed €6,367,520 to bioMérieux, which re-billed €2,640,110 of this sum to bioMérieux Inc. and €1,066,310 to BioFire Diagnostic. In 2017, Institut Mérieux had billed these two companies directly, under agreements that fell outside the scope of regulated agreements (see section 7.7.3 of the 2017 Registration Document). The reason for this amendment is the Company's desire to harmonise re-billing rules with Institut Mérieux with those that it has in place with its own subsidiaries, while continuing to comply with applicable international rules, particularly those of the OECD. It should also be noted that Institut Mérieux wishes to strengthen its Group Audit Department, including internal audit, risk management and compliance activities. This is in order to pursue the objective of consistency in the risk management and safeguarding processes in Institut Mérieux and its controlled companies, in order to meet all the legal and regulatory obligations that are incumbent upon it.

In addition, the Company's other related-party agreements, which continued during the financial year, were approved by the Board of Directors in 2015 as set forth below.

The addendum to the sponsorship agreement with the Fondation Mérieux is in line with the Company's general sponsorship policy and is designed to allow the Company to support the humanitarian activities and goals of the foundations over the long term, in the field of public health, which is the Company's area of operation.

The sponsorship agreement with the Fondation Christophe and Rodolphe Mérieux, the Company's reference shareholder, whose budget rose in 2017 from €1,325,000 to €2,000,000 is in line with the Company's general sponsorship policy and is designed for the long-term support of the humanitarian activities and goals of the foundations in the field of public health, which is the Company's area of operation.

The addendum to the service agreement with the Fondation Mérieux enables the Company to share with the Fondation the skills and resources necessary for meeting some of the Fondation's needs so that it can carry out its public interest missions, financed by the Company through sponsorship agreements.

Additional pension contributions (article 83) for Alexandre Mérieux are paid by bioMérieux on the same basis as bioMérieux managers. This agreement is justified by the Company's desire to treat its employees and corporate officers equitably;

A new agreement on managing employee mobility in the Mérieux Group, previously known as the Agreement on Allocation of Employment Contract Severance Payments, provides that severance payments for employment contracts and/or retirements of employees who have worked for Group companies, whose seniority was made retroactive without compensation, be divided equitably between the parties. This division is made prorata based on compensation paid by each Mérieux Group company that benefited from the employees' services, except for compensation that constituted the basis for a previous severance payment. Renewal of this agreement is justified by the Company's interest in dividing severance payments under its employees' employment contracts among each of the Mérieux Group companies (including the Fondation Mérieux, if applicable) for which such employees also worked, based on common rules and conditions. This agreement was extended to Fondation Mérieux, an entity outside of Mérieux Group, by an addendum;

At its December 2018 meeting, the Board of Directors carried out an annual review of the related-party agreements and confirmed following discussion that the previously authorised agreements and addenda still met the criteria on which basis it had granted prior authorisation and that these authorisations therefore remained in force. The calculation methods applied to the agreements are set out in the Statutory Auditors' special report below.

7.7.4 Statutory Auditors' special report on related-party agreements and commitments

This is a free translation into English of the Statutory Auditors' special report issued in French and is provided solely for the convenience of Englishspeaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standardsapplicable in France.

At the bioMerieux Annual General Meeting,

In our capacity as Statutory Auditors of bioMérieux, we hereby report to you on related-party agreements and commitments.It is our responsibility to report to you, based on the information provided to us, the principal features, terms and conditions of the agreements and commitments that have been disclosed to us or that we may have identified as part of our engagement, without commenting on their relevance or substance or identifying any undisclosed agreements and commitments. Under Article R.225-31 of the French Commercial Code, it is your responsibility to determine whether the agreements and commitments are appropriate and should be approved.Where applicable, it is our responsibility to provide you with the information required by Article R.225-31 of the French Commercial Code in relation to the implementation during the past year of agreements and commitments already approved by the General Meeting.We performed the procedures that we deemed necessary in accordance with professional standards applicable in France. These procedures consisted in verifying that the information provided to us is consistent with the underlying documents.

Agreements and commitments submitted for the approval of the General Meeting

Pursuant to Article L.225-40 of the French Commercial Code, we were informed of the following agreements and commitments concluded during the past year and that were authorised in advance by the Board of Directors.

1. With Silliker Group Corporation, a member company of the Mérieux Group

People concerned

Alexandre Mérieux (Chairman and Chief Executive Officer) and Harold Boël (independent director).

Nature and purpose

The contract assigning an employee of Silliker Group Corporation France (Mérieux NutriSciences) to your Company was authorised by the Board of Directors meeting on February 27, 2018, and took effect on June 1, 2018, for a period of one year.

Terms and conditions

This contract provides for an employee of Silliker Group Corporation (Mérieux NutriSciences) to be made available for 50% of their working time to be re-billed at actual cost.In the financial year ending December 31, 2018, your Company reported a liability under this contract of €115,686.04 before tax.

Reasons why the agreement will be of benefit to your Company:

Your Board has provided the following reasons: "this agreement is justified by the Company's interest in adopting, with Mérieux NutriSciences, a shared commercial approach to key strategic customers, in order to improve the effectiveness of the two companies' respective product and service offerings".

2. With Institut Mérieux, the parent company

People concerned

Institut Mérieux and Alexandre Mérieux (Chairman and Chief Executive Officer) and Jean-Luc Bélingard (director).a) Creation of GNEH

Nature and purpose

Creation of the company GNEH, jointly with Institut Mérieux, and increases of the capital of GNEH by contributing bioMérieux's and Institut Mérieux's shares in GeNeuro.

Terms and conditions

Your Company and its parent company, Institut Mérieux, owned respectively 6.40% and 27.48% of GeNeuro, a company under Swiss law whose shares are traded exclusively on the Euronext Paris regulated market. It was therefore decided to consolidate the equity investments held by your company and Institut Mérieux within a dedicated entity, GNEH, which was created on July 23, 2018. GNEH holds 33.88% of the share capital and voting rights in GeNeuro, with the equity investment held at that point by Institut Mérieux being reassigned to GNEH at the level of TSGH. Consolidating these equity investments required:

- the creation of GNEH, a simplified joint stock company with share capital of €10,000 comprising 10,000 shares of €1 each, held proportionately by your Company with 8,111 shares and by Institut Mérieux with 1,889 shares. Institut Mérieux will chair this company with the goal of acquiring the ownership interests in all companies in the immunotherapy field;
- the increase in the capital of GNEH on November 5, 2018 through the contribution of the shares of Institut Mérieux and of bioMérieux in GeNeuro, by means of a contribution agreement valuing all of the shares contributed at €22,444,755, or €4.52 per share, of which 938,334 shares were contributed by your Company and 4,027,320 shares by Institut Mérieux.

Reasons why the agreement will be of benefit to your Company:

Your Board has provided the following reasons: "this project is justified by the Group's interest in putting in place a dedicated structure and governance arrangements, in this case TSGH, in order to ensure that knowledge is shared to support a consistent strategy. This is in the light of the technological, scientific and financing challenges associated with the various immunotherapy activities carried out by the Group through its subsidiaries or equity investments".

b) Amendment to the service agreement

Nature and purpose

Amendment to the contract for services provided by Institut Mérieux authorised by the Board meeting on December 20, 2018.

Terms and conditions

The purpose of this amendment is to change:

- the list of services provided, by adding the internal audit (according to the tasks actually carried out on behalf of your company) and risk and compliance functions, which will henceforth be performed by the Institut Mérieux and re-billed to bioMérieux from January 1 , 2019;

- the rules for re-billing services provided by Institut Mérieux in its capacity as the Group's lead holding company. The margins that apply are amended in accordance with OECD rules, by applying an 8% margin to all of the expenses incurred by Institut Mérieux, except for:
- expenses incurred by Institut Mérieux, at the request of another entity, for practical and administrative reasons (pass-through costs) which will continue to be billed at cost price,
- expenses incurred by Institut Mérieux in order to carry out specific services that are purely administrative and to the benefit of a Group entity and that will be re-billed applying a 5% margin. For the sake of transparency and in order to allow bioMérieux to define its own re-billing rules for its subsidiaries, Institut Mérieux bills your company for all of the services set out in the contract above, to be paid for by your company and its subsidiaries, according to the applicable allocation criteria, so that your company can re-bill its subsidiaries directly, without a mark-up.

Reasons why the agreement will be of benefit to your Company:

Your Board has provided the following reasons: "the reason for this amendment is the Company's desire to harmonise re-billing rules with Institut Mérieux with those that it has in place with its own subsidiaries, while continuing to comply with applicable international rules, particularly those of the OECD. It should also be noted that Institut Mérieux wishes to strengthen its Group Audit Department, including internal audit, risk management and compliance activities. This is in order to pursue the objective of consistency in the risk management and safeguarding processes in Institut Mérieux and its controlled companies, in order to meet all the legal and regulatory obligations that are incumbent upon it".

Agreements and commitments already approved by the General Meeting

Agreements and commitments authorised during previous years

a) and which continued to be performed during the last financial year

Pursuant to Article R.225-30 of the French Commercial Code, we were informed of the following agreements and commitments approved in prior years, which remained in place in the past year.

1. With the Fondation Mérieux

People concerned

Alexandre Mérieux, Chairman and Chief Executive Officer

a) Rider to the sponsorship agreement of March 8, 2011

Nature and purpose

The Fondation Mérieux's sponsorship agreement dated March 8, 2011, approved by the Board of Directors on December 18, 2014, took effect on January 1st, 2015 for an indefinite length of time.

Terms and conditions

Your Company donates cash and assigns some of its employees to initiatives carried out on behalf of the Fondation Mérieux as part of your corporate sponsorship strategy. The total amount represented by these donations and by the employees made available is determined and voted each year by the Board of Directors.

Amounts in the financial yearIn the year ended December 31, 2018, your Company reported total liabilities of €350,013.06 in relation to donations to Fondation Mérieux.

b) Rider to the service agreement dated January 1, 2011

Nature and purpose

The agreement covering services provided to Fondation Mérieux by your Company, approved by the Board of Directors on December 18, 2014, took effect on January 1, 2015 for an indefinite length of time.

Terms and conditions

Your Company provides the Fondation Mérieux with human resources by assigning some of its employees to carry out Fondation work, on biology, as well by supplying administrative support and IT staff. These services are compensated in accordance with the regulation applicable to intragroup transfer prices, with 8% margin added for the reimbursement of service costs, excluding biological services (categorised as research and development under the terms of the regulation on transfer prices) and a 10% margin added for the reimbursement of biological service costs.

Amounts in the financial yearIn the year ended December 31, 2018, your Company reported profits of €194,317.87.

2. With the Fondation Christophe and Rodolphe Mérieux

Person concerned

Alexandre Mérieux, Chairman and Chief Executive Officer

Nature and purpose

On December 15, 2016, the Board of Directors approved an increase in the annual sponsorship budget for the Fondation Christophe and Rodolphe Mérieux, from €1,325,000 to €2,000,000 from January 1, 2017.

Terms and conditions

Your Company makes donations to the Fondation Christophe and Rodolphe Mérieux as part of its corporate sponsorship strategy. The total amount represented by these donations and voted each year by the Board of Directors.

Amounts in the financial year

In the year ended December 31, 2018, your Company reported total liabilities of €2,000,000 in relation to donations to Fondation Christophe and Rodolphe Mérieux.

3. With Alexandre Mérieux, Chairman and Chief Executive Officer

Nature and purpose

Transfer to your Company of liability for supplementary pension contributions for Alexandre Mérieux.

Terms and conditions

The agreement provides that your Company makes the contributions to the supplementary pension scheme (Article 83 of the French Tax Code) on behalf of Alexandre Mérieux, in the same way it does for the executives of your company.

Amounts in the financial yearIn the financial year ending December 31, 2018, your Company reported a liability under this agreement of €16,359.62.

b) not performed during the last financial yearWe were informed of the following agreements and commitments, already approved by the

General Meeting during previous financial years, which were not implemented during the past financial year.

With the companies of the Mérieux Group: Institut Mérieux, Mérieux NutriSciences, Transgene, ABL, Thera, Mérieux Développement, Fondation Mérieux

People concerned

Alexandre Mérieux (Chairman and Chief Executive Officer), Jean-Luc Bélingard (director), Philippe Archinard (director) and Harold Boël (independent director).

Nature and purpose

An agreement on managing the mobility of employees within the Mérieux Group, approved by the Board of Directors on December 18, 2014, took effect on January 1, 2017 for an indefinite length of time.

Terms and conditions

This agreement provides that severance payments for employment contracts and/or the retirement of employees who have worked for Group companies, whose seniority was made retroactive without compensation, be divided equitably between the parties. This division is on a prorata basis, according to compensation paid by each Mérieux Group company having benefited from the employees' services, except for compensation that constituted the basis for a previous severance payment.

Lyon, February 27, 2019

The Statutory Auditors

GRANT THORNTON

French member of the Grant Thornton International network

Françoise Méchin

ERNST & YOUNG et Autres

Nicolas Perlier

7.8 Material contracts

The Company has not entered into any material contracts over the last two years other than those entered into in the ordinary course of business.

8

ADDITIONAL INFORMATION

8.1 Persons responsible for the Registration Document

8.1.1 Name and function of persons responsible

Alexandre Mérieux, Chairman and Chief Executive Officer of bioMérieux.

8.1.2 Statement of the persons responsible

"I hereby certify that having taken all reasonable care to ensure that such is the case, the information contained in this Registration Document is, to the best of my knowledge, in accordance with the facts and contains no omission likely to affect its import.

I declare that, to the best of my knowledge, the annual financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and the consolidated Group as a whole, and that the management report presented according to the concordance table in section 8.5 provides a fair view of the business, results and financial position of the Company and the consolidated Group as a whole, as well as a description of the principal risks and uncertainties to which they are exposed.

I obtained a statement from the Statutory Auditors at the end of their engagement in which they state that they have examined the information concerning the financial position and the financial statements presented in this Registration Document and that they have read this Registration Document in its entirety."

Marcy l'Étoile, March 13, 2019

Chairman and Chief Executive Officer

Alexandre Mérieux

8.1.3 Name and function of person responsible for financial information

Guillaume Bouhours, Executive Vice President Finance, Purchasing, Information Systems.

bioMérieux

69280 Marcy l'Étoile

Phone: +33 (0)4 78 87 20 00

www.biomerieux-finance.com

www.biomerieux.com

8.2 Responsible for auditing the financial statements

Cabinet Ernst & Young et Autres

Tour Oxygène - 10 boulevard Vivier Merle 69003 Lyon

The Company was appointed by the Annual General Meeting of May 30, 2012, then renewed by the Annual General Meeting of May 17, 2018 for a term expiring at the end of the Annual General Meeting called to approve the financial statements for the year ending December 31, 2023.

Ernst & Young et Autres is a registered audit firm, member of *Compagnie régionale des Commissaires aux comptes de Versailles*.

Ernst & Young et Autres is represented by Nicolas Perlier.

Cabinet Grant Thornton

44 quai Charles-de-Gaulle 69006 Lyon

Auditex was appointed deputy Statutory Auditor by the Annual General Meeting of May 30, 2017 for a term expiring at the end of the Annual General Meeting called to approve the financial statements for the year ending December 31, 2022.

Grant Thornton is a registered audit firm, member of *Compagnie régionale des Commissaires aux comptes de Versailles*.

Grant Thornton is represented by Françoise Méchin.

8.3 Documents on display

In accordance with article 28 of regulation No. 809/2004 of April 29, 2004 of the European Commission (EC), the following information is referenced in this Registration Document.

For financial year 2017:

- the consolidated financial statements and the corresponding Statutory Auditors' report appear in section 6.1.1 and 6.1.2 (pages 144 to 199) and in section 6.1.3 (pages 200) respectively;
- the annual financial statements and the corresponding Statutory Auditors' report appear in section 6.2.1 and 6.2.2 (pages 203 to 235) and in section 6.2.4 (page 240) respectively;
- financial information appears in section 5.2 (pages 133 to 138);
- capital expenditure (or capex) appears in section 5.5 (page 140),

of the Registration Document of financial year 2017 filed with the AMF on March 14, 2018, under No. D18-0129.

For financial year 2016:

- the consolidated financial statements and the corresponding Statutory Auditors' report appear in section 6.1.1 and 6.1.2 (pages 140 to 195) and in section 6.1.3 (pages 196) respectively;
- the annual financial statements and the corresponding Statutory Auditors' report appear in section 6.2.1 and 6.2.2 (pages 197 to 223) and in section 6.2.4 (page 228) respectively;
- financial information appears in section 5.2 (pages 129 to 134);
- capital expenditure (or capex) appears in section 5.5 (page 136),

of the Registration Document of financial year 2016 filed with the AMF on March 15, 2017, under No. D17-0173.

Other information in these Registration Documents is irrelevant to investors or is covered by another section in the 2018 Registration Document.

During the period of validity of this Registration Document, the Company's articles of incorporation and bylaws, as well as the minutes of Shareholders' Meetings, the Company's historical financial information, the Statutory Auditors' reports and all other Company documents may be consulted at the Company's registered office in Marcy l'Étoile, France.

In accordance with AMF recommendation No. 2014-15, the Company press releases and annual reports including historical financial information on the Company are available on the Company's website and kept on file for the required length of time.

More generally, and in accordance with article 221-3 of the AMF's General Regulation, all of the regulatory information within the meaning of article 221-1 of the aforementioned regulation, as well as the Company's updated bylaws (in French only), are available on the Company's website www.biomerieux-finance.com.

MAIN SOCIAL MEDIA PAGES

Facebook	https://www.facebook.com/biomerieux
Twitter	https://twitter.com/biomerieux
YouTube	https://www.youtube.com/user/bioMerieuxTV https://www.youtube.com/user/biomerieuxdiagnostic https://www.youtube.com/user/biomerieuxindustry
LinkedIn	https://www.linkedin.com/company/biomerieux

8.4 2019 Provisional investor calendar

Date	Event
April 24, 2019	First quarter 2019 sales (before start of trading)
May 23, 2019	Annual General Meeting
September 4, 2019	Second quarter 2019 sales and first-half 2019 results (before start of trading)
October 22, 2019	Third quarter 2019 sales (before start of trading)

The Company reserves the right to modify this calendar at any time.

8.5 Concordance tables

REGISTRATION DOCUMENT CONCORDANCE TABLE TO IDENTIFY THE INFORMATION REQUIRED BY ANNEX I OF REGULATION (EC) NO. 809/2004 OF APRIL 29, 2004

Sections of Annex I of regulation (EC) No. 809/2004	Section(s)	Page(s)
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5. Information about bioMérieux		
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5.2. Investments		
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6.1.2. New products	1.2.3/5.2.2.4	26/143
6.2. Principal markets	1.2.1	18
6.3. Exceptional events	N/A	
6.4. Dependence of the issuer on patents, licences, industrial, commercial or financial contracts or new manufacturing processes	1.6.2.2/2.4.1/2.4.3	46/60/60
6.5. Competitive position	1.2.1.5/1.2.2.2/1.3.1	23/24/36
7. Organisational structure		
7.1. Brief description of the Group	1.4.1	37
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8. Property, plant and equipment		
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8.2. Environmental constraints that may influence the use by the issuer of its property, plant and equipment	3.3	87
9. Operating and financial review		
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9.2.1. Significant factors that have a material impact on the issuer's operating income	5.2.2.1/5.2.2.2	142/143
9.2.2. Explanation for significant changes in net revenue or net income	5.2.1	141
9.2.3. Governmental, economic, budgetary, monetary or political strategies or factors that have significantly impacted or could significantly impact, either directly or indirectly, the issuer's operations	2	51

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10.3. The issuer's borrowing conditions and financing structure	5.3.3	144
10.4. Restrictions on the use of the share capital	5.3.4	144
10.5. Expected financing sources required to honour investment commitments	5.3.5	144
11. Research & development, patents and licences	**1.6.1/1.6.2.1**	**42/45**
12. Overview and current trends		
12.1. Main trends that have affected production, sales and inventories, costs and sales prices since the end of the last financial year	5.6.1	145
12.2. Known trends, uncertainties, demands, commitments or events that can reasonably be expected to significantly impact the issuer's outlook, at least during the current financial year	5.6.2	146
13. Profit forecasts		
13.1. Declaration listing the main assumptions on which the issuer has based its forecasts or estimates	N/A	
13.2. Statutory Auditors' report	N/A	
13.3. Profit forecasts or estimates calculated on a comparable basis to historical financial information	N/A	
13.4. Declaration indicating the validity of the forecast at the date of the Registration Document	N/A	
14. Administration, management and supervisory bodies		
14.1. Name, business address and function, within the issuing company, of the members of the administrative, management and supervisory bodies, stating their main activities carried on outside of the Company and their management expertise and experience	4.2.3/4.2.4	113/118
a) Other directorships		
b) Convictions for fraud pronounced over at least the last five years		
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14.2. Conflicts of interest at the administrative, management and supervisory bodies and executive management level	4.2.4	118
15. Compensation and benefits		
15.1. Amount of compensation paid and benefits-in-kind for members of the administrative, management and supervisory bodies	4.3.1/4.3.2	125/126
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16.1. Date of expiry of current directorships	4.2.1/4.2.3	109/113
16.2. Service agreements linking members of the issuer's administrative, management and supervisory bodies or those of any of its subsidiaries and providing for the payment of benefits	7.7.2/7.7.3/7.7.4	268/270
16.3. The Board committees	4.2.5.6	122
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18.1. Shareholders holding over 5% of capital	7.4.1	261
18.2. Existence of different voting rights	7.2.3.3/7.4.1	255/261
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20.2. *Pro forma* financial information	N/A	
20.3. Financial statements	6.1.1/6.1.2/6.2.1/6.2.2	150/156/216/218
20.4. Audit of historical annual financial information	6.1.3/6.2.4	212/248
20.4.1. Declaration attesting to the audit of the historical financial information		
20.4.2. Other audited information		
20.4.3. Sources of financial information not drawn from the issuer's audited financial statements		
20.5. Age of latest financial information	5.1	140
20.6. Interim financial information and other		
20.6.1. Quarterly or half-yearly financial information produced since the date of the last audited financial statements	N/A	
20.6.2. Interim financial information for the first six months of the financial year following the end of the last audited financial year	N/A	
20.7. Dividend policy	7.6	267
20.8. Legal and arbitration proceedings	2.6	64
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21. Additional information		
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21.1.1. Subscribed share capital	7.3.1	256
21.1.2. Shares not representing capital	7.3.1	256
21.1.3. Shares held by the issuer or its subsidiaries	7.3.2	256
21.1.4. Securities that are convertible, exchangeable or with subscription warrants	7.3.3	258
21.1.5. Conditions that govern all acquisition rights and/or obligations attached to authorised but unissued share capital, or all capital increases	7.2.4/7.3.4	255/259
21.1.6. The share capital of any Group member, which is subject to an option or a conditional or unconditional agreement	N/A	
21.1.7. Changes in share capital for the period covered by the historical financial information	7.3.1/7.4.1	256/261
21.2. Articles of incorporation and bylaws		
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21.2.3. bodies Rights, privileges and restrictions attached to each existing share category	7.2.3	255
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23. Information from third parties, expert declarations and declarations of interest		
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THE FOLLOWING CONCORDANCE TABLE ENABLES IDENTIFICATION OF THE MAIN INFORMATION STIPULATED BY THE FINANCIAL REPORT INDICATED IN ARTICLE 451-1-2 OF THE FRENCH MONETARY AND FINANCIAL CODE AND ARTICLE 222-3 OF THE AMF GENERAL REGULATIONS

Headings/Themes	Section(s)	Page(s)
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Consolidated financial statements	6.1.1	150
Management report	See concordance table between the Registration Document and the management report	
Statement by the person responsible for the annual financial report	8.1.2	276
Statutory Auditors' report on the parent company financial statements	6.2.4	248
Statutory Auditors' report on the consolidated financial statements	6.1.3	212

THE CONCORDANCE TABLE BELOW INCLUDES ALL THE INFORMATION FROM THE MANAGEMENT REPORT REQUIRED BY ARTICLES L.225-100 ET SEQ., L.232-1, II, L.233-26 AND R.225-102 OF THE FRENCH COMMERCIAL CODE

Themes	Section(s)	Page(s)
I. Activity		
Objective and exhaustive review of the change in business, the results and financial position of the Company and the Group, in particular its indebtedness, in view of its volume and the complexity of its activities	5.1/5.2/6.2.3	140/141/243
Position of the Company and the Group during the last financial year	5.2.2/5.5.1/5.5.2/6.2.3.1	142/145/145/243
Forecast changes for the Company and Group	5.6.2	146
Significant events for the Company and Group after the year end	5.6.1	145
Research & development activities of the Company and the Group	1.6.1	42
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8.6 Glossaries

8.6.1 Scientific terms

Nucleic acid: Nucleic acid is a naturally-occurring molecule found in most cells. It has the ability to hold and transmit coded hereditary instructions allowing for an organism's development. There are two types of nucleic acids: DNA and RNA.

Amplification: a technique, usually using enzymes, for multiplying nucleic acids in order to increase the sensitivity of detection methods.

Antibiotic: susceptibility test: an analysis to determine the sensitivity of a bacterium to antibiotics.

Antibiotic: a substance of natural or synthetic origin capable of stopping the multiplication of bacteria.

Antibody: a complex protein molecule produced by the immune system to detect and neutralise disease-causing organisms, in particular viruses.

Antigen: a macromolecule recognised by an antibody or cells from an organism's immune system that triggers an immune response.

DNA: the acronym of "deoxyribonucleic acid". These nucleotides consist of a sugar (deoxyribose), a phosphate group and one of the following nitrogen-containing bases: adenine (A), cytosine (C), guanine (G) or thymine (T), and serve as a medium for genetic information.

ANSM (*Agence nationale de sécurité du médicament et des produits de santé*): French regulatory agency, which carries out assessments, provides expertise and makes decisions regarding the safety of drugs and healthcare products.

ANVISA (*Agência Nacional de Vigilância SAnitária*): Brazilian agency responsible for regulating food and medical products.

RNA: the acronym of "ribonucleic acid". A polymer similar to DNA which, like DNA, mainly has a role as a vector of genetic information. The sugar in RNA is a ribose.

Bacterium: a unicellular microorganism lacking chlorophyll and visible only under a microscope. Bacteria do not belong to either the plant or the animal kingdom.

Multi-resistant bacteria: bacteria are said to be multi-resistant to antibiotics when they are sensitive only to a small number of the antibiotics customarily used in therapy, as a consequence of the accumulation of natural and acquired resistances.

Biochemistry: an area of science which studies the correlation between the structure of natural molecules and the consequences on their activity.

Molecular biology: technology that analyses genetic sequences of DNA or RNA that are characteristic of a bacterium, virus, protein or cell.

Chromogen: a substance that produces colouring under certain conditions. Related to an enzyme substrate and incorporated in a culture medium, it is used to reveal a particular enzyme metabolism and thereby assists in identifying the cultured bacterium.

Consumable: a single-use accessory, generally employed in an analysis instrument.

Contaminant: a substance present where it should not be.

Cytomegalovirus: a virus responsible for infections, usually undetected. It becomes pathogenic especially in patients with weak immune defences. The virus is a member of the herpes virus family, which includes *inter alia* herpes simplex virus (HSV) or herpes virus hominis (HVH), cytomegalovirus (CMV), varicella-zoster virus (VZV) and Epstein-Barr virus (EBV).

Cytometry: the counting of cells.

Flow cytometry: technique of passing a stream of cells, particles or molecules at high speed within a stream of liquid through a laser beam. The light re-emitted (by diffusion or fluorescence) enables the population to be classified and sorted according to several criteria.

***In Vitro* Diagnosis:** tests performed outside the human body using diagnostic tools.

Enzyme: a protein macromolecule which speeds up a biochemical reaction.

Pulmonary embolism: obstruction of one of the branches of the pulmonary artery or of the pulmonary artery itself by a blood clot.

Enterobacteria: a family of aerobic or anaerobic (requiring or not requiring oxygen to live and reproduce) bacilli (bacteria), revealed by Gram-negative staining.

Enterococcus: oval-shaped bacterium of the group D of the Streptococcus family, usually resident in the intestine of healthy humans.

Extraction: term applied to the steps which extract nucleic acids from the cells that contain them and process them so they can be used in molecular biology techniques such as amplification.

FDA (Food and Drug Administration): American agency responsible for regulating food and medical products.

Fungal: that which relates to fungi.

Genotyping: determination of all the genes contained in the cells of an organism.

Gram staining: staining which reveals the properties of the bacterial wall so that they can be used to distinguish and classify bacteria. The main distinction is between Gram-positive and Gram-negative bacteria.

Blood culture: an essential blood test in infectious disease. It is carried out by taking a sample of venous blood which is then cultured to reveal the presence or absence of germs.

Histology: the study of tissue in order to research tissue composition, structure and renewal and cellular exchanges within themselves.

Immunoassay: detection of pathology markers using an antigen-antibody reaction.

Quality indicator: term used in food processing to define the microorganisms responsible for visual or taste alterations (*e.g.*, mould or bacterial contamination). Quality indicator counts are used to assess product hygiene.

ID/AST: a bacterial identification and antibiotic susceptibility test.

IVD: abbreviation for *in vitro* diagnostics.

Laboratory P1, P2, P3 and P4: classification of laboratories based on biohazard level, Level 1 representing a minimum risk and Level 4 representing a high risk of transmission and mortality.

***Listeria*:** a genus of bacteria which can cause listeriosis, an infectious disease which is potentially serious in new-born babies, pregnant women or individuals with low resistance.

Marker: a reagent used to detect the substance to which it is bound. A biological marker (biomarker) is a substance that is assayed to help diagnose a pathology.

Methicillin: a semi-synthetic penicillin used primarily against non-resistant *Staphylococcus aureus*.

Microbiology: the study of microorganisms, including *inter alia* viruses, bacteria and fungi.

Microorganism: a living organism of microscopic size.

Culture media: a simple or compound nutrient composition in liquid or solid form, used to maintain or increase the development of a microbial species under appropriate biological conditions.

MRSA: methicillin-resistant *Staphylococcus aureus* bacterium.

Multiplex: the ability to transmit multiple data on a single physical medium.

Mycobacteria: rod-shaped bacillus-type bacteria. Some species of mycobacterium are pathogenic: *M. leprae* responsable for leprosy; *M. tuberculosis*, responsible for tuberculosis.

NMPA (National Medical Income Administration): CFDA (China Food and Drug Administration): Chinese agency responsible for regulating food and medical products.

Healthcare-associated infection: a disease contracted in a hospital or other healthcare establishment by a patient who did not have this disease on admission.

WHO (World Health Organization): executive authority in healthcare for international projects within the UN system.

Oncology or cancerology: the medical speciality of the study, diagnosis and treatment of cancers.

Test panel: a set of predetermined medical tests used in the diagnosis and treatment of medical conditions.

Parasite: an organism that feeds off, lives or reproduces itself by establishing a lasting interaction with another organism (the host).

Disease-causing organism: biological agent responsible for infectious disease. Infectious agents can be viruses, bacteria or parasites.

PCR (polymerase chain reaction): the polymerase chain reaction is a molecular biology method for *in vitro* genetic amplification that duplicates a large quantity (with a multiplication factor nearing one billion) of a known DNA or RNA sequence from a small initial quantity. This method is particularly appropriate for the detection of viruses.

POC (point of care) - POCT (point of care testing): services offered "at the bedside", including in particular the analysis of the diagnosis.

Procalcitonin: a marker used to assist in the early detection of bacterial infections.

Protein: a basic constituent of all living cells. A biological macromolecule is composed of one or more amino acid chains linked by peptide bonds.

***Salmonella*:** a genus of enterobacteria called *Salmonella*. They cause two types of illness: gastrointestinal diseases through foodborne illnesses (salmonellosis) and typhoid and paratyphoid fevers.

Sepsis: an excessive reaction of an organism's immune system and coagulation system to an infection. This reaction is characterised by systemic inflammation and by blood coagulation problems, which can rapidly lead to organ failure (severe sepsis) and, in many cases, death.

Septicaemia: serious systemic infection of the organism by pathogenic germs, indicated by the presence of microorganisms in the blood.

DNA sequencing: method used to determine the order of the nucleotide bases in a molecule of DNA.

Mass spectrometry: a technique used to identify and determine the chemical structure of multiple molecules simultaneously, analysing the mass and charge of their ions.

Staphylococcus: a genus of Gram-positive bacteria, usually observed in clusters resembling bunches of grapes.

Substrate: a molecule used as a starting product which binds to the active site of an enzyme and is converted into one or more products.

Syndrome: a set of clinical signs and symptoms a patient is likely to display when suffering from certain medical conditions.

Acute coronary syndrome: decreased blood flow in the coronary arteries resulting in reduced circulation rate and inadequate oxygenation of the myocardial muscle.

Theranostics: a diagnostic test that allows clinicians to take the most suitable therapeutic decision for each patient, thereby favouring more personalised treatment.

Venous thrombosis: the formation of a blood clot in a vein. It usually occurs in a vein of the lower limbs, in the leg or hip, rarely in the upper limbs.

Typing: a method which can help in the assessment of the compatibility between two individuals, their organs, tissues or blood. A technique used to characterise bacteria.

Virus: a rudimentary infectious microorganism, containing a single type of nucleic acid encaged in a protein capsid, which uses the materials of the cell that it parasitises to synthesise its own constituents. It reproduces using just its own genetic material.

8.6.2 Alternative performance indicators and financial terms

Net debt: sum of cash and cash equivalents with a maturity of less than three months, less committed debt and bank overdrafts and other uncommitted debt borrowings. APM

Earning Before Interest, Taxes, Depreciation and Amortization (EBITDA): contributive operating income before non-recurring items, depreciation and amortization. APM

Currency impact: currency effects are established by converting actual numbers at the average rates of year y-1. In practice, those rates are either average rates communicated by the ECB, or hedged rates if hedging instruments have been set up.

ETP/FTE: Equivalent Full time/Full Time Employee. APM

Free cash flow generation (Free Cash Flow): the cash flow from operations plus cash flows from investment excluding net cash from acquisitions and disposals of subsidiaries. APM

Contributive operating income before non-recurring items: operating income before non-recurring items related to the acquisition and integration of BioFire and before accounting entries relating to the Company's purchase price allocation. APM

Contributive operating income: operating income before "material extraordinary and non-recurring items", which are included in "other non-recurring income and expenses from operations."

Changes in scope of consolidation:

The effects of changes in scope of consolidation are determined:

- for acquisitions during the period, deducting from sales during the period the sum of sales completed in that period by entities acquired as from their inclusion in the scope of consolidation;
- for acquisitions in the preceding period, deducting from sales during the period the sum of sales completed in the months during which the acquired entities were not consolidated in the preceding period;
- for disposals in the period, adding to the sales in the period the sum of sales completed by the entities disposed of in the preceding period, during the months in which these entities are no longer consolidated in the current period;
- for disposals in the preceding period, adding to the sales in the period the sales completed during the preceding period by the entities disposed of.

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