

2022 ANNUAL REPORT





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OUR COMPANY PURPOSE

WE HELP MAKE THE WORLD A HEALTHIER PLACE

Our dedication to public health is the thread that connects everything we do.

It connects us to our history - since 1963, we have been fulfilling the vision of the Mérieux family to **improve health**, while maintaining the values of **respect**, **accountability**, **transparency**, and **sharing**. Building on our strong legacy, we understand that our expertise in infectious diseases and our international presence give us a **special duty to act as a responsible corporate citizen**, serving the **greater good** and the **community**.

This commitment also connects us with our environment - infectious diseases are one of the major threats to human kind.

Their emergence and spread are dramatically accelerated by climate change and globalization. The risk of finding ourselves unarmed to face ultra-resistant bacteria is now a reality. Diagnostics is a game changer in this fight. By pioneering diagnostic solutions, we help clinicians **improve patient care** and we help industries **prevent contamination** of the food and pharmaceuticals they produce.

At bioMérieux we are convinced that, only by taking into account our **entire ecosystem** and the **public interest**, will we be able to succeed in building a **healthier world** and a more **inclusive society**.

We pioneer, develop and produce high quality *in vitr* o diagnostics to **improve public health** worldwide.

We sustain a robust business model that allows us to **invest in innovation and create value.**

We implement environmentally-responsible actions to **preserve the planet** as a healthy place to live.

We support the **inclusion**, **well-being and development of our team members**, who all help save lives.

We foster **transparent and ethical dialogue** with the healthcare ecosystem to advance diagnostics.

We build long-term partnerships to increase our **positive impact on local communities** and provide our **support to the most vulnerable populations.**

We are bioMérieux.
We act for a positive impact.
We act for a healthier world.

EDITO

WE INNOVATE TO BUILD THE FUTURE



Alexandre Mérieux Chairman and CEO

The year 2022 began while the SARS-CoV-2 Omicron variant wave was still rampant and ended with a particularly virulent seasonal flu epidemic. While the pathogens differ, the threat to public health remains the same. Additionally, a study in *The Lancet*¹ published in November 2022, bacterial infections are the second leading cause of death worldwide. Fighting infectious diseases, which bioMérieux has set as a priority since its creation in 1963, remains a major health challenge.

We have also discussed a great deal this year about antimicrobial resistance, a major public health challenge for which diagnostics plays an essential role. We have long been committed to the fight against antimicrobial resistance. Through our Centers of Excellence, we support our hospital partners in their antimicrobial stewardship programs with close proximity to the patient and medical teams. We also participated in creating a joint venture with two renowned players – Boehringer Ingelheim and Evotec – to identify new treatment regimens with the associated diagnostic tests.

Enhancing our portfolio of solutions

True to our pioneering spirit, bioMérieux's teams continuously innovate to improve patient health and ensure consumer safety. In the past few months, we further enhanced our portfolio with solutions that are even faster, easier to use and closer to the patient. For example, we acquired Specific Diagnostics, with its rapid AST system and our mass spectrometer, VITEK® MS PRIME, received FDA* clearance in the United States. Our BIOFIRE® solutions increasingly respond to the challenges of syndromic testing and we are launching the SPOTFIRE® system to decentralize diagnostics bringing it closer to the patient.

In the field of industrial applications and quality control, we are pursuing our development, especially in cell and gene therapies, an extremely dynamic sector that brings hope to many patients. Furthermore, the innovation of our augmented diagnostics solutions for the food industry received a prestigious award from the International Association for Food Protection in the United States.

Committed and united teams

Thanks to our positioning on major health issues and because we continue to make significant investments in R&D, we achieved a solid performance in 2022 in a fast-moving and uncertain context. Our teams, who were able to meet again face-to-face in the majority of the countries where we operate, have once again demonstrated their commitment to public health and their solidarity with the communities around us.

Through our sponsorship activities worldwide, we support and actively participate in local initiatives, especially those aimed at the most vulnerable populations and young people. Our historical support for the Mérieux Foundation and the Fondation Christophe et Rodolphe Mérieux contributes to the fight against infectious diseases in resource-limited countries, developing access to diagnostics and sustainably improving the quality of life of vulnerable people. In addition, following an initial call for projects in 2022, the bioMérieux Endowment Fund for Education has decided to support 20 additional projects in 12 countries for the education of young people.

When celebrating its 60th anniversary, with its proud and strong history, bioMérieux remains resolutely focused on the future and on serving the health of future generations.

^{*} Food and Drug Administration.

¹ Global mortality associated with 33 bacterial pathogens in 2019: a systematic analysis for the Global Burden of Disease Study 2019, The Lancet, November 2022.

PIONEERING DIAGNOSTICS TO ADDRESS PUBLIC HEALTH CHALLENGES

GENERATIONS
COMMITTED
TO SERVING
PUBLIC
HEALTH

OUR RESOURCES AND STRENGTHS

INTERNATIONAL AND COMMITTED TEAMS

- Around 13,800 team members
- Operations in 45 countries
- Diversity, multiculturalism and inclusion
- Good social dialogue

SOLID FINANCIAL FUNDAMENTALS

- Stable family shareholder structure
- Mutual trust with financial partners (investors and banks)
- Solid structural cash flow generation

SUSTAINED INVESTMENT IN INNOVATION

- Between 11 and 13% of sales
- 14 R&D centers

STRICT REQUIREMENTS FOR OUR OPERATIONS

- 16 bio-industrial sites
- Nearly 13,000 suppliersAmbitious capital
- expenditure policy
- Respect for business ethics

A RESPONSIBLE ENVIRONMENTAL POLICY

- Careful, responsible consumption of natural resources and raw materials
- Optimizing energy consumption
- Waste recycling and greenhouse gas emission management
- Optimizing the environmental footprint of our products

A HUMAN-CENTERED AND SUPPORTIVE CORPORATE CULTURE

- Human-centered and philanthropic engagement
- Ongoing, constructive dialogue with local stakeholders



A FAMILY-OWNED

COMPANY WITH

A LONG-TERM VISION

To address our customers' challenges

- Clinical laboratories
- Hospital laboratories
- Physicians
- Blood banks
- Vets
- Industrial control laboratories (food, pharmaceuticals and cosmetics)

OUR VALUE CREATION

PROMOTING TEAM MEMBER ACHIEVEMENTS AND WELL-BEING

- 21 hours of training/team member
- Training take-up rate: 93%
- 9.1% of internal promotions, or 1,168 team members
- Employee share ownership plans

GENERATING RESULTS THAT GUARANTEE INDEPENDENCE

(Average annual growth 2018–22)

- Revenue: +10.3%
- Net income: +15.2%
- Dividends: +26.0%

INTERACTING WITH THE HEALTH ECOSYSTEM

- Managing regulatory requirements
- Health economics studies
- Spreading awareness of the importance of the role of diagnostics in the care pathway by means of professional associations
- Expertise sharing with healthcare professionals
- Interactions with healthcare professionals regarding respect for business ethics

IMPROVING PUBLIC HEALTH WORLDWIDE

- Open innovation (joint research laboratories, public/private partnerships)

 Deschart and literature for the partnerships.
- Product quality and safety
- 75% of R&D expenditure dedicated to the fight against microbial resistance

PRESERVING THE PLANET

- Validation by the Science Based Targets initiative of bioMérieux's approach and objectives for reducing greenhouse gas emissions
- Eco-design approach for products

ENSURING A POSITIVE EFFECT ON COMMUNITIES

- 1.08% of the income attributable to the parent company in sponsorship
- Team member and Company involvement in local communities
- Responsible tax policy
- Responsible commitment to our suppliers and local procurement policy



2015

Alexandre Mérieux becomes Chief Executive Officer of bioMérieux and Chairman in 2017



Alain Mérieux creates bioMérieux



Dr. Charles Mérieux takes over the helm of the family flagship



1897

After studying alongside Louis Pasteur, Marcel Mérieux creates the Institut Mérieux

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2022 KEY FIGURES

In 2022, bioMérieux continued its commitment to patient health and consumer safety. Our diagnostic solutions (systems, reagents, software and services) determine the source of diseases or contaminations. They are used mainly for diagnosing infectious diseases and detecting microorganisms in food and pharmaceutical products. bioMérieux is a world leader with headquarters in France, in Marcy-l'Étoile.

INTERNATIONAL FOOTPRINT





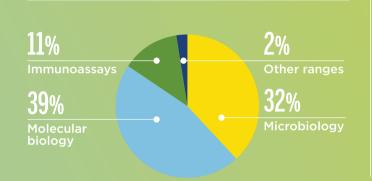
TOTAL SALES

E3,589m +0.2% of ORGANIC GROWTH

SALES BY APPLICATION

CLINICAL APPLICATIONS

85% OF CONSOLIDATED SALES



INDUSTRIAL APPLICATIONS

15% of consolidated sales

SALES BY REGION

AMERICAS
£1,842m
OR 51%
OF CONSOLIDATED
SALES

EUROPE, MIDDLE EAST, AFRICA

£1,122m

OR 31%

OF CONSOLIDATED SALES

ASIA PACIFIC

600 17%

OF 17%

OF CONSOLIDATED

SALES

LOOKING BACK AT 2022



NIGERIA

in 2020, our 3rd subsidiary in Africa opened its doors in Nigeria. With around 20 team members, it aims to be a leader in this country, which is the most populated on the continent and its foremost economic power.



FRANCE

After South Africa in 2008 and then Egypt The **foundation stone** has been laid for our European Microbiology R&D Center LaB-NEXT at our La Balme-les-Grottes site. Its mission: developing innovative diagnostic solutions to optimize laboratory workflows.



CANADA

Our local team received the **Medal** of Quebec National Assembly in recognition of their commitment to the government during the COVID-19 pandemic.



IRAO

Our Middle East teams, in partnership with our distributor Ismailiya, hosted an annual Infectious Disease Symposium, with 300 customers and representatives from the Iraqi Ministry of Health taking part.



CHINA

Our new 16,000 m² building, dedicated to the production of blood culture bottles for the Chinese clinical market, was delivered in Suzhou. When fully operational, the site is expected to have nearly 100 team members.



UNITED STATES

The French Ambassador to the United States, Philippe Etienne, visited our Saint Louis site, where our VITEK® systems are produced. This was a great recognition of bioMérieux teams' commitment to the fight against antimicrobial resistance.



UNITED STATES

The **Thomas A. Martin Business** Recycler of the Year Award was given to Salt Lake City Operations Management by the Recycling Coalition of Utah (RCU). This award recognizes our actions to limit waste and preserve the planet's resources.



FRANCE

Inauguration of the Combourg site extension, specializing in the production of reagents (culture media and cytometry) and instruments (automated ranges for cytometry laboratories) for the food industry. This extension is the 4th phase of a major transformation plan begun in 2015 to modernize the site.







Valérie Leyldé, Executive Vice President Human Resources Communication and CSR

"CSR, A PART OF **BIOMÉRIEUX'S COMMITMENT SINCE ITS CREATION!"**

Corporate Social Responsibility (CSR) is at the heart of bioMérieux's purpose and part of our DNA. How is it embodied on a daily basis in the Company's strategy and operating methods? Interview with Valérie Leyldé, Executive Vice President, Human Resources, Communication and CSR.

Corporate Social Responsibility is an we are historically very involved in local essential dimension for any economic player. What does it mean to bioMérieux?

Our CSR vision is truly embodied in our desire to sustainably reduce our negative impacts for the planet but it goes even further, into all our human and societal commitments. The very nature of our business confers on us responsibility regarding public health and patients in particular. We also do everything possible to ensure the well-being of our team members, with priority on health and safety at work. We attach a great deal of importance to dialogue with our stakeholders and to business ethics. Finally, at bioMérieux,

communities wherever we operate in the world, especially by supporting vulnerable

How does CSR at bioMérieux fuel a longterm ambition?

CSR has been a part of bioMérieux's commitment since its creation in 1963, well before CSR became a structured approach for economic players! We are a family company committed to fighting infectious diseases worldwide. Our Company is built around human-centered values with a long-term vision. I believe that it is fundamental that there is no gap between what we do, our industrial activity to serve public health, and who we are at heart and the reasons why we do it, our beliefs and our mindset. These values are shared by our 13,800 team members. All this is explicit in our purpose: "We help make the world a healthier place".

How is CSR governance organized within the Company?

Our CSR department coordinates the implementation of the CSR strategy by relying on a collective, proactive and cross-sectional approach. Since 2018, an operational Steering Committee has brought together all the Company's departments and ensures smooth rollout of our CSR roadmaps. Local teams then adapt their priorities according to the actual situation in their respective geographic areas.

CSR is a commitment at the highest level of the Company. It is subject to quarterly monitoring by the Executive Committee and, every year, the CSR policy and nonfinancial risks are shared with the Audit Committee and the Board of Directors. Our CSR commitments and our results are also included transparently in our external publications. In 2020, the Human Resources, Appointments and Compensation Committee evolved to become the HR. Compensation and CSR Committee and their responsibilities were extended to monitoring the CSR policy.

What is the role of internal and external stakeholders?

All of our stakeholders (team members, investors, suppliers, customers, patient associations, etc.) are fully-involved in our process. They have also been consulted to

The very nature of our business confers on us responsibility.

contribute to building our CSR ambitions. We also interview them regularly when it comes to specific subjects, such as, for example, eco-design in 2022. That same year, we created a Stakeholders Committee and drew up an Engagement Charter with them.

And how are your team members involved?

As I mentioned, our CSR approach is not top-down. It relies on everyone's individual responsibility, at all levels of the Company and in all positions. Furthermore, I would like to acknowledge all of our teams for the progress made and for their commitment above and beyond their primary missions. Their involvement in serving global public health and the fight against antimicrobial resistance, their active participation in Climate Fresk workshops, their contribution to reducing our greenhouse gas emissions. or even their involvement in sponsorship activities, show the extent to which our team members are completely aligned with our CSR approach and ambition.

How is bioMérieux's CSR activity exem-

I don't know if our action is exemplary and we are well aware that we still have a lot to accomplish. But I am certain that bioMérieux makes progress every day and our commitment is recognized by our stakeholders. We have also obtained a series of official recognitions from independent external players (CDP, SBTi, Dow Jones Sustainability Index, Euronext Vigeo Eiris, etc. - see page 55). These are all indicators that recognize the successful integration of bioMérieux's CSR ambitions into our overall

OUR MAIN CSR COMMITMENTS



HEALTH

Antimicrobial Resistance (AMR) & Stewardship (AMS)

+30%

≥80%

by our AST solutions (2

Carbon & environment footprint

-50%

GHG absolute emissions in 2030 vs 2019

-45% water consumption (3)

-50% energy consumption (3) -50% waste generation (3

Stakeholder dialogue

X2 by 2025 vs 2021

Materiality assessment

3 years



EMPLOYEES

Safety, Diversity & Inclusion

Lost Day Incident Rate

÷2 to 0.6

Corporate leadership team in 2025 (4)

>40% women

>35% international



Partners & Communities

≥1%

of net income Group share dedicated to Philanthropy (Endowment Fund excluded)

55% of sales (trained on CSR by 2025

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"WE PROVIDE A COMPREHENSIVE OFFER TO COMBAT SEPSIS AND ANTIMICROBIAL RESISTANCE. WE AIM TO MAKE SURE THAT THE VALUE OF DIAGNOSTICS IS WELL INTEGRATED INTO PATIENT PATHWAYS TO IMPROVE PUBLIC HEALTH WORLDWIDE." Bhargab Barua, Vice President Global Marketing Integrated Solutions

AMS CENTERS OF EXCELLENCE TO FIGHT AGAINST ANTIMICROBIAL RESISTANCE

In 2022, bioMérieux initiated a new kind of partnerships with hospitals and their laboratories, aiming to strengthen Antimicrobial Stewardship (AMS) and thus demonstrate the value of diagnostic solutions. And so, the AMS Centers of Excellence were created.

several hospitals from among its historical partners to set up these AMS Centers of Excellence. In the chosen structures, which already benefit from bioMérieux systems in their laboratories, our team members work alongside healthcare professionals to promote an appropriate use of antibiotics.

By leveraging diagnostic results data, our teams help improve processes, reduce turnaround times, and facilitate laboratory routines, showing the medical and economic

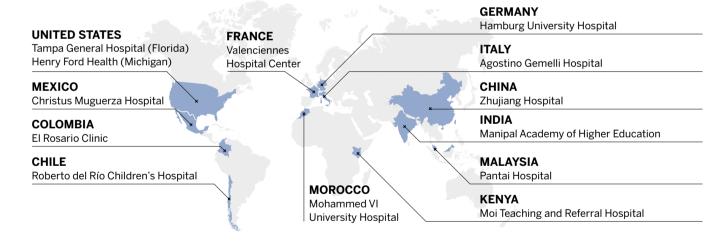
We need evidence! bioMérieux has selected value of diagnostics in the fight against antimicrobial resistance. Diagnostic tests enable clinicians to identify bacterial, viral, or fungal infections and aid in decisionmaking about the need for and selection of appropriate treatment.

> In addition to diagnostic solutions, through these AMS Centers of Excellence, bioMérieux wishes to highlight the advantages of a global approach, including data/IT solutions, advice on optimizing laboratory workflows, and medical training. In practice, our teams

adapt to the realities of each hospital by building tailor-made partnerships over a three-year period.

The very first Center of Excellence was set up in China, at Zhujiang Hospital. To date, 13 centers have been established worldwide. The final list of partners shows a wide diversity in terms of type of structure (private/public), maturity, geography,

13 CENTERS ESTABLISHED WORLDWIDE IN 2022



The excessive and/or inappropriate use of antibiotics in humans. animals, and agriculture has amplified the **antimicrobial resistance** (AMR) phenomenon to the point of compromizing the effectiveness of the prevention and treatment of a growing number of bacterial infections, leading to therapeutic dead ends. According to the control measures, they also help prevent the spread of resistant World Health Organization (WHO). AMR is one of the top 10 threats to human health worldwide, responsible for 1.27 million deaths worldwide and indirectly involved in nearly 5 million¹.

Antimicrobial Stewardship (AMS) is one of the main ways to preserve antibiotic efficacy. AMS programs are deployed in hospitals and other healthcare settings to promote and optimize antibiotic management. When implemented alongside infection microorganisms in healthcare facilities.

1. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis, The Lancet.

HELPING LOW- AND MIDDLE-INCOME COUNTRIES WITH THE FLEMING FUND



Since 2019, we have partnered with the Fleming Fund. an ambitious UK antimicrobial resistance program, to equip laboratories in resource-limited countries with diagnostic solutions.

teams have installed bioMérieux diagnostic solutions in clinical and veterinary reference laboratories in 15 countries. These include: Bangladesh, Bhutan (see photo), Eswatini, A new phase, with an initial duration of Zambia and Zimbabwe.

ments to help combat antimicrobial resis-

Following three years of collaboration tance: the VITEK® MS and VITEK® 2 for with all partners of the Fleming Fund, our pathogen identification and susceptibility testing systems, along with MAESTRIA™ software for data processing.

India, Indonesia, Lao, Malawi, Nepal, Nigeria, 3 years, will begin in 2023, aiming to Senegal, Sierra Leone, Tanzania, Vietnam, safeguard the program's sustainability by financing the maintenance of instruments and reagents at the reference laboratories. These laboratories have high-tech instruand additional countries included.

RENEWED SUPPORT FOR THE GLOBAL-PPS PROJECT

Since 2014, we have been the sole private sponsor of the Global Point Prevalence Survey (Global-PPS), a unique global study on the prevalence of antibiotic use. Coordinated by Prof. Herman Goossens and Dr. Ann Versporten from the University of Antwerp (Belgium), the Global-PPS provides key information on the use of these drugs and bacterial resistance in hospitals, in order to improve practices. By the end of 2021, more than 90 countries had taken part in this initiative, involving 1,080 hospitals and 450.000 patients.

The Global-PPS has been the subject of major publications, particularly in the Lancet Global Health. It is now recognized by international organisations such as the World Health Organization (WHO), Doctors Without Borders (MSF), the Center for Disease Dynamics, Economics & Policy (CDDEP), the Infectious Diseases Society of America (IDSA) and the British Society for Antimicrobial Chemotherapy (BSAC).

NEW THERAPEUTIC APPROACHES WITH AUROBAC

bioMérieux has partnered with Boehringer Ingelheim, a leading research-driven biopharmaceutical laboratory, and Evotec SE, one of the most active infectious disease research companies, to create Aurobac Therapeutics in Lyon. Its mission is to create the next generation of antibiotics and effective diagnostic solutions to combat antimicrobial resistance.

Aurobac Therapeutics intends to transform current treatment regimens, which are based on empirical approaches using

broad-spectrum, non-targeted antibiotics. bioMérieux's role in the joint venture is to develop and commercialize rapid diagnostic tests, including companion tests, to deliver fast, reliable and actionable results.

Boehringer Ingelheim is the main investor in Aurobac Therapeutics, providing €30 million, with Evotec and bioMérieux putting in €5 million each.

SEPSIS AND OTHER CRITICAL CASES... RAPID DIAGNOSIS IS ESSENTIAL!

In situations where a patient's life is at stake, such as suspected sepsis, every minute counts. It is necessary to be able to establish the diagnosis and administer the appropriate treatment as quickly as possible. The challenge is to limit the prescription of broad-spectrum antibiotics in the first line to combat antimicrobial resistance. Faced with these public health challenges, bioMérieux is focused on even faster testing with actionable results for clinicians.

Each year worldwide, 49 million people suffer from sepsis and 11 million deaths attributed. In fact, one in five deaths worldwide is associated with sepsis¹. Defined as lifethreatening organ dysfunction, sepsis is caused by an excessive immune response to a serious infection. Any delay in the administration of appropriate treatment can therefore be fatal for the patient.

"Diagnostic testing provides critical information to confirm the presence of sepsis, assess its severity, and identify the nature of the pathogen," explains Mark Miller, Executive Director of Medical Affairs at bioMérieux. Tests such as blood cultures, other suitable cultures, and procalcitonin can provide crucial information to guide optimal patient management in the event of suspected and proven sepsis and to monitor the course of the pathology."

However, in order not to fuel antimicrobial resistance – which is itself responsible for therapeutic deadlock situations and causes an increased mortality risk for patients with sepsis - clinicians must have rapid, accurate and easy-to-interpret diagnostic test results. This is the objective of the latest instruments marketed by bioMérieux such as VIDAS[®] KUBE[™] (immunoassays), VITEK® MS PRIME (mass spectrometry) or the SPECIFIC REVEAL™ system (rapid susceptibility testing), and also the BIOFIRE® panels that can detect multiple resistance genes. These high-tech automated solutions help clinicians make appropriate medical decisions and optimize treatment to save patients' lives.

MANAGEMENT OF SEPSIS IN FOCUS

During Sepsis Month in September, bioMérieux and the UK Sepsis Trust, an international charity, published the results of a survey conducted by Ipsos of 368 hospital physicians in six European countries to assess their knowledge and practices in the management of sepsis. It highlights that adherence to guidelines for timely and appropriate sepsis treatment ("Sepsis Bundles") remains low, leaving patients at significant risk of death². When prompted, only 44% of physicians surveyed carry out all steps included in the "Hour-1 Sepsis Bundle" the actions to be taken immediately in all patients with suspected sepsis or septic shock. In addition, 56% of respondents acknowledge that some cases of sepsis are missed in the hospital where they work and 27% report that the lack of rapid diagnostic tests is a barrier to adhering to the recommendations.

SPECIFIC REVEALTM, A FAST AND INNOVATIVE AST SYSTEM

In May 2022, bioMérieux completed the therapy, or rapid escalation to a more acquisition of the U.S. company Specific Diagnostics. Its rapid susceptibility testing system complements our microbiology antimicrobial resistance.

SPECIFIC REVEAL™ can provide actionable results in the case of Gram-negative bacterial infections directly from positive blood cultures, on average, 5.5 hours³. It helps clinicians meet the challenge of managing bacteremia (bacteria in the bloodstream), allowing for rapid de-escalation to a more appropriate and less expensive targeted

effective treatment for multidrug-resistant infection.

portfolio to help combat sepsis and In August 2022, the U.S. Food and Drug Administration (FDA) granted its Breakthrough Device Designation for the SPE-CIFIC REVEAL™ rapid Antimicrobial Susceptibility test system. This designation is reserved for medical devices that offer significant advantages over existing authorized solutions; these devices are considered breakthrough innovations and/or their availability is of major impact



^{1.} Rudd, K. et al. Global, regional, and national Sepsis incidence and mortality, 1990-2017: analysis for the Global Burden of Disease Study. The Lancet. 2020; 295: 200-11.

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^{2.} https://www.biomerieux.com/corp/en/iournalists/press-releases/new-survey-shows-low-adherence-to-guidelines-in-sepsis-care-puts.h

^{3.} Tibbetts et al., ECCMID 2020 and in review

VIDAS®, AN EVER-EVOLVING IMMUNOASSAY RANGE

CE MARKING OF VIDAS® TESTS FOR THE DIAGNOSIS OF CHIKUNGUNYA

Our new automated VIDAS® Anti-CHIKUNGUNYA IgM and VIDAS® Anti-CHIKUNGUNYA IgG tests assist in the diagnosis of Chikungunya virus infection by detecting infection during the acute and chronic phases, as recommended by international guidelines. Their performance and accuracy make it possible to differentiate this diagnosis from other similar febrile syndromes caused by the dengue virus or malaria.

FDA* ACCREDITATION FOR THE VIDAS® NEPHROCHECK®

VIDAS® NEPHROCHECK® is an innovative test capable of detecting kidney stress before it occurs in patients at risk of acute kidney injury (AKI), a common complication whose delay in diagnosis can potentially have irreversible consequences. This predictive test provides physicians with high medical value information so they can tailor patient management to avoid the consequences of AKI.

25,000 clinical laboratorie equipped with VIDAS® systems in 160 countries ¹.

More than **100** VIDAS® parameters available for clinical and industrial operations.

1. Based on internal market research.



Launched more than 30 years ago, the VIDAS® range has revolutionized the field of immunoassays. It provides clinical laboratories and the food industry with universal access to simple, automated and robust technology that delivers fast and reliable results. In 2022, our offering was boosted by the CE marking of a new generation system: VIDAS® KUBE™.

VIDAS® is based on a unique testing principle carried out with an all-in-one kit, and is one of the most widely used immunoassay systems worldwide. It is recognized by professionals in our mature markets for high medical value testing and facilitates access to clinical testing automation in growing markets.

The VIDAS® menu covers a wide range of infectious or chronic conditions, and has a range of tests dedicated to emergency and critical care. The VIDAS® solution also includes numerous tests for the detection of the most common pathogens in food products.

The VIDAS® immunoassay portfolio is an important part of our business and remains a major research and development focus. It is subject to frequent launches that create value for laboratories with the aim of improving patient health, and for controling food products to protect consumers.

The most recent example: the CE marking, at the end of 2022, of VIDAS® KUBE™, which combines state-of-the-art technology with the recognized qualities of the VIDAS® solution. This easy-to-implement, modular benchtop system is compatible with the wide variety of routine tests available for emergency and critical care, immunochemistry and infectious diseases. It is also compatible with existing pathogen detection testing for the food industry and can be used within ISO 16140-2:2016, AOAC-RI** and AOAC-OMA*** certified methods.

OUR MOLECULAR BIOLOGY SOLUTIONS ARE GAME CHANGERS



A pioneering leader in the syndromic approach, bioMérieux has developed its molecular biology activities in recent years, in particular thanks to its BIOFIRE® range. Latest innovation: the launch of the decentralized SPOTFIRE® system and its respiratory panel.

The BIOFIRE® multiplex PCR* solution makes it possible to simultaneously identify, in a single test and in a very short time, the microorganisms most frequently responsible for an infection for a given clinical syndrome. It integrates, in a closed and fully-automated system, sample preparation, amplification and detection of pathogens. The BIOFIRE® range offers the broadest commercially-available menu for the detection of pathogens.

The syndromic approach has shown its effectiveness in dealing with the diversity of infections, and in particular in the fight against COVID-19. Molecular biology has become the primary pillar of bioMérieux's activity, accounting for nearly 47% of clinical sales in 2022, compared to 28% in 2019.

In early 2023, we received 510(k) clearance and CLIA** waiver from the Food and Drug Administration (FDA) for our fast and innovative BIOFIRE® SPOTFIRE® system and its BIOFIRE® SPOTFIRE® Respiratory (R) Panel. This panel makes it possible to detect, in a single test, 15 of the pathogens most commonly responsible for respiratory tract infections. The results are delivered in approximate 15 minutes, and can thus be obtained during a patient's medical consultation.

This major innovation further expands our syndromic testing technology outside of traditional clinical laboratories, to local structures for patients such as points-of-care or medical practices (including pediatrics).

A NEW SYNDROMIC PANEL TO DETECT JOINT INFECTIONS

The BIOFIRE® Joint Infection (JI) panel has received U.S. FDA De Novo approval and CE marking. It helps identify agents that are specifically responsible for joint infections (septic arthritis). These serious infections can affect native or prosthetic joints, and in some cases may be considered medical emergencies. Our BIOFIRE® JI panel provides an innovative response. It detects, in about 1 hour and in a single test. 31 pathogens involved in most acute joint infections as well as 8 antimicrobial resistance genes. using synovial fluid samples obtained directly from the affected joint, in order to best guide antibiotic therapy.

ARGENE®. A RESPONSE TO REAL-TIME PCR* NEEDS

Our ARGENE® molecular biology range and its semi-automated ARGENE® SOLUTION offer are complementary to the BIOFIRE® offer. Positioned in particular on respiratory infections and the monitoring of immunocompromized patients, this solution allows detection of up to 4 pathogens in a single test, including sample and/or internal controls depending on the test, and serial testing. It is suitable for any type of centralized laboratory using PCR* techniques on different nucleic acid extraction and amplification platforms.

In 2022, we submitted to the European *In Vitro* Diagnostic Regulation our 5-plex SARS-COV-2/FLUA/FLUB/RSV R-GENE® test, an evolution of our SARS-COV-2-RESPI R-GENE® allowing these pathogens to be detected simultaneously, including a quality control of the sample, thus adding the human respiratory syncytial virus (RSV), responsible for bronchiolitis and pneumonia. In addition, we have developed a screening test for monkeypox (simian orthopoxvirosis), MONKEYPOX R-GENE®, also including a sample control. It was launched in early 2023 for research use only (RUO).

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^{*} Food and Drug Administration.

^{**} Association of Official Analytical Chemists - Research Institute.

*** Association of Official Analytical Chemists - Official Methods of Analysis.

^{*} Polymerase Chain Reaction.

roughed as enain reaction.

** Clinical Laboratory Improvement Amendments. The CLIA waiver allows non-laboratory professionals to use this system and this test directly at the point of care

PHARMA QUALITY CONTROL: **AN ENHANCED OFFER**

Innovative quality control solutions developed by our experts deliver fast, accurate and reliable results that address pharmaceutical industry performance and patient safety challenges. We also leverage strategic partnerships to accelerate our development and expand our offering.

significant waves of innovation, including and gene therapy products. The strategic the emergence of messenger RNA partnership signed in 2022 with the vaccines, personalized medicines, and cell and gene therapies. In order to support to enhance our offering and develop our manufacturers with the many challenges expertise in efficacy testing. encountered during production, our experts offer innovative solutions adapted to With this global strategy, we are deploying their requirements. In particular, we have enhanced our portfolio of quality control solutions for the pharmaceutical industry compliance, inform decision-making with with a digitalization and automation data, and deliver safe therapies to patients offer for environmental monitoring as quickly as possible. - 3P® ENTERPRISE - and completed our

The pharmaceutical industry is experiencing offering for detecting mycoplasma in cell innovative company InDevR also allows us

> a growing number of solutions to improve operational efficacy, facilitate regulatory

PARTNERSHIP WITH INDEVR FOR VACCINES OUALITY CONTROL

In early 2023, we signed a partnership agreement with US biotechnology company InDevR, owner of an innovative quality control solution for performing efficacy tests, critical for the release of vaccine batches: VaxArray®. As part of this partnership, we are providing InDevR with our knowledge of the pharmaceutical industry and will support its R&D activities. By becoming an exclusive distributor of their range of solutions in Europe, we also support the expansion of this innovation engine.



3P® ENTERPRISE OPTIMIZES **ENVIRONMENTAL CONTROL**

Launched in 2022 and the latest brick of the 3P® solution ecosystem, 3P® ENTERPRISE now allows the digitalization of environmental control from start to finish.

As a result: guaranteed reading performance, optimal process efficiency and real-time data retrieval and processing, opening up new opportunities for decision making.

This solution includes 3P® SMART culture media, 3P® CONNECT software that automatically collects, tracks, and immediately records all actions and data, and 3P® STATION, an instrument that automates the incubation and colony counting of the media plates in real time. A range of services is also available to support the integration of 3P® ENTERPRISE at each stage, with a customized approach.

CELL AND GENE THERAPIES: OUR MAJOR ACHIEVEMENTS

From human genes, tissues, or cells, from the patient themselves or from a donor, cell and gene therapies are very promising approaches in critical cases. In 2022 we accelerated the development in the quality control of these therapies, with:

- the launch of a new protocol for our BIOFIRE® FILMARRAY® mycoplasma detection assay technology to adapt it to the specifics of these therapies;
- the signing of a cooperation agreement with <u>Dutch start-up</u> NecstGen to integrate our quality control solutions into its production process, with a view to jointly developing an offer suitable for the manufacture of these types of therapies.

ENSURING FOOD INDUSTRY SAFETY WITH AUGMENTED DIAGNOSTICS



Prevention is better than recovery! Our augmented diagnostic offering is a new approach in response to the needs of the food industry: anticipating contamination before it occurs in manufacturing lines.

Our diagnostic solutions, in particular those based on genomic and metagenomic sequencing, are an innovative and comprehensive response to contamination issues faced by the food industry. Our comprehensive product line not only protects food manufacturers from the risks of pathogen contamination, but also makes their production more efficient. This is the value provided by our solutions, which ensure consumer safety and organoleptic product quality while they enable manufacturers to secure production, improve performance and mitigate financial risk.

We serve a wide variety of markets with augmented diagnostics: food processing, beverages, dairy products including powdered infant formula, nutraceuticals, and therapeutic cannabis in the United States.

This new and innovative approach of augmented diagnostics is recognized by industry professionals: in May 2022, bioMérieux won the International Association for Food Protection (IAFP) Food Safety Innovation Award at its trade show in Pittsburgh (U.S.).

XPRO, OR HOW TO INNOVATE BY INVOLVING **OUR CUSTOMERS**

Developing molecular biology technologies requires a lot of time and investment. That's why bioMérieux has created xPRO, a new approach to partnering with customers in the food industry. Building on our R&D centers of expertise in France (Grenoble) and the United States (with our subsidiary Invisible Sentinel in Philadelphia). we are developing molecular kits to meet our customers' technical and economic requirements, linking them specific needs to create a tailored test that we then industrialize to make it available to other market participants. The customer associated with the project has twofold benefits: ensuring consumer safety and boosting its status as a leader in its sector. For example, in 2022, we launched BOTTLESAFE™ in partnership with a wine company in the U.S. (see testimonial page 43).

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IVDR: **COMPLIANCE LAUNCHED SUCCESSFULLY**

The new European In Vitro Diagnostic Medical Device Regulation (IVDR) came into force on May 26, 2022. This brings the requirement for manufacturers to meet defined implementation deadlines. bioMérieux has begun by CE marking over 200 Class A products.

IVDR aims to ensure that the European In 2022, bioMérieux successfully achieved market is functioning properly and to guarantee a high degree of protection for the health of patients and users by establishing high standards of quality and safety.

The main innovation is the strengthening of the role of notified bodies. Now, more than 80% (compared with 8% previously) of marketed in vitro diagnostic devices require certification from a notified body.

This regulation brings in a new classification system as another major change. Devices are divided into 4 classes (A, B, C, and D) based on their level of risk to patients and public health: from "low" for class A to "high"

IVDR certification of its quality management system. We have also CE marked, under the new regulation, all of our existing Class A products, i.e. more than 200 references. We are making progress on certifying products in the other risk classes B, C and D; most of these products are expected to be CE marked by the end of 2023.

We have also obtained our first IVDR CE markings for newly-launched products, since May 26, 2022.

bioMérieux is committed to supporting all our customers and distributors during this transition phase. We all contribute together to improving public health by following this new regulation.

AN ENHANCED OFFERING OF MEDICAL AND EDUCATIONAL RESOURCES

education and training programs and tools for healthcare professionals and for our team members each year. These resources enrich scientific knowledge and medical skills, and highlight the role and value of diagnostics in the patient pathway.

In 2022, we published a new tuberculosis-themed **educational** manual, bringing our themed collection to 16 titles. We also completed our **medical monograph** portfolio with texts on Chikungunya, joint infections and, in early 2023, mild traumatic brain injury.

The **Educational Support** section of our institutional website has been supplemented by a dedicated microbiology section, in addition to the sections already in place: antimicrobial resistance/antimicrobial stewardship, sepsis, COVID-19, acute kidnev injury and cardiac emergencies. Our site offers open access to numerous articles, video tutorials, interactive clinical cases, along with online courses developed in collaboration with leading experts.

Our Medical Affairs department develops numerous medical We have also initiated continuing medical education **programs** in collaboration with recognized scientific organizations, and supported, through educational grants, independent programs created by scientific societies, such as ESCMID, GHIC, or ISID*. With more than 650 events held worldwide in 2022, approximately 90,000 healthcare professionals have participated in bioMérieux's continuing medical education activities.

> Our team members also have internal access to an expanded medical education offering as well as our entire medical resource portfolio from our intranet site.

For our pharmaceutical industry customers, we sponsor **a** series of podcasts broadcast by the European Pharmaceutical Review thanks to the assistance of bioMérieux experts and other external specialists. The objective is to provide educational content on cell and gene therapy production, its challenges and the key role of quality control in this field.

* ESCMID: European Society of Clinical Microbiology and Infectious Diseases. GHIC: Global Health

OUR 2022 PRODUCT LAUNCHES

CLINICAL APPLICATIONS

FEBRUARY



Launch of MYACUTECASE™. a free mobile app to support clinicians in decision-making and monitoring of patients using diagnostics in the emergency and intensive care units.

MARCH



FDA 510(k) clearance for VITEK® MS PRIME, a new MALDI-TOF mass spectrometry system for routine microbial identification in minutes.

MAY



De Novo FDA authorization for **BIOFIRE® Joint Infection (JI)** panel that detects 31 pathogens involved in most acute joint infections and covering 8 antimicrobial resistance (AMR) genes.



CE marking of new automated VIDAS® Anti-CHIKUNGUNYA IgM and VIDAS® Anti-CHIKUNGUNYA IgG tests to aid in the diagnosis of Chikungunya virus infections

JULY



FDA clearance for the NEPHROCHECK® test on **VIDAS®**, an innovative assay capable of detecting renal stress in patients at risk of acute kidney injury (AKI).

DECEMBER



a new automated immunorendering of reliable results in clinical microbiology and food



INDUSTRIAL APPLICATIONS

MARCH



Launch of **CONNECT-UP™** for the food industry, innovative middleware that simplifies our customers' workflow and increases their productivity. connecting each step from sample to decision-making. **CONNECT-UP™** links with various bioMérieux systems: BLUELINE®, TEMPO®, VIDAS® and GENE-UP®.

JULY



Launch of 3P® ENTERPRISE for the pharmaceutical industry. This innovative solution fully digitizes and automates the environmental control process to ensure efficiency and control. The offer consists of 3P® SMART culture media, 3P® CONNECT software and the 3P® STATION

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INNOVATION DRIVES OUR RESPONSE TO PUBLIC HEALTH CHALLENGES

Innovation has been part of bioMérieux DNA since its creation in 1963. The Company is spurred on by a daring and open-minded spirit passed down from generation to generation. R&D is an important foundation for our growth and serves our long-term vision.

MEDICAL VALUE OF DIAGNOSTICS AND LABORATORY EFFICACY

In the clinical field, R&D works across the value chain and interacts with all Company functions. It helps fuel our strategy and boost our activity. The share of sales generated by newly launched products has highly increased since 2020. A significant amount of the R&D budget is invested in disruptive innovation to prepare for the future.

Our R&D efforts serve two purposes:

- enhance the medical value of diagnostics with tests that can identify and characterize infection-causing microorganisms and host response biomarkers more accurately and quickly during infection;
- improve laboratory efficacy and contribute more broadly to optimize operational performance.

About 75% of our R&D investments are dedicated to the fight against antimicrobial resistance. We are also active in the fight against sepsis and pathologies such as myocardial infarction and acute kidney injury, where rapid and reliable results are essential for patient management. Finally, our research targets emerging pathogens, as has been the case with COVID-19.

These strategic directions have led us to double our R&D investments in molecular biology over the past 5 years, particularly on our BIOFIRE® range.

INDUSTRIAL APPLICATIONS: A SPECIFIC

In the field of industrial microbiology, bioMérieux invests approximately 8% of its sales in R&D, a rate well above the industry average.

Augmented diagnostics, a tailored response for the food and beverage industry

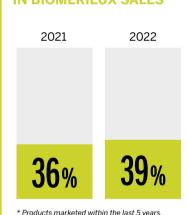
Contamination management expectations in production units have increased due to globalization and increasing cost pressures. We are addressing this challenge through the development and deployment of augmented diagnostic solutions. This innovative and personalized approach anticipates the risk of contamination at a production site and optimizes supplier risk management.

Strong investments to support the dynamics of the pharmaceutical sector

To meet the environmental control needs of pharmaceutical industries, we are focusing our R&D spending on three priority areas: automation, digitalization and optimization of turnaround time. bioMérieux is accelerating its R&D to improve efficacy control in cell and gene therapies, a field of activity which is particularly dynamic.



SHARE OF NEW PRODUCTS* IN BIOMÉRIEUX SALES



14 R&D centers
1,500 scientists
12.4% of sales reinvested in R&D
30 patents filed

HCL-BIOMÉRIEUX: 20 YEARS OF TEAMWORK



Together with Hospices Civils de Lyon (HCL) we created our first joint research laboratory in 2002. In 2016, Claude Bernard Lyon 1 University joined this innovative public/private research partnership. Our goal is to understand the mechanisms of immunity to develop diagnostic tests.

One of the advantages of a joint unit The first joint laboratory for research on at the heart of the hospital is to be rheumatoid arthritis was established at the Edouard Herriot Hospital in 2002, at able to make innovations available the initiative of Dr. Christophe Mérieux and to experts as soon as possible, with Prof. Pierre Miossec. In 2009, a second a view to serving patients quickly. laboratory dedicated to oncology was set up in the heart of the Lyon Sud Hospital. Alexandre Pachot. From 2014, both laboratories refocused their Director of Health Research, HCL activity on sepsis and the understanding of

The HCL-bioMérieux joint laboratory is...

scientific publications

32 patents filed since 2002

since 2002

infections.

These laboratories bring together, at the heart of the hospital, many clinicians, scientific researchers and students with close patient access around four research themes:

immune mechanisms in patients with severe

assessment of the state of the immune system of intensive care units (ICU) patients with sepsis;

- understanding and predicting organ failure;
- diagnosis of acute infections in febrile children in pediatric emergencies or neonatology:
- failure of interferon type 1 antiviral response in severe respiratory infections.

These joint research units are a unique melting pot of scientific interactions to address public health issues. bioMérieux brings its diagnostic expertise and innovative solutions, while HCL provides medical knowledge. Since 2016, Claude Bernard Lyon 1 University has been bringing a complementary dimension to the partnership by training the next generation of clinicians and scientists specializing in infectious diseases. Today, a dozen thesis and master's students work in the two units.

IN CHINA, A JOINT LABORATORY DEDICATED TO PEDIATRICS

a new joint research laboratory with Shanghai Children's Medical Center (SCMC). It conducts studies consistent with the themes targeted within the HCL in Lyon, exclusively with children in pediatrics, in particular immunomonitoring of children with sepsis or onco-hematological diseases (treatment with CAR-T cells).

DIAGNOSTICS, AN EXCELLENT COMPANION TO THE PHARMA INDUSTRY



We develop diagnostic tests in partnership with pharmaceutical companies to support their R&D development, clinical trials, or the commercialization of their drugs, vaccines, or medical devices. These "companion" tests allow for accurate characterization of the patient's clinical status based on their own biological characteristics, contributing to a personalized medicine approach.

Personalized medicine is about tailoring care to the patient's characteristics. It is already widely used in oncology, and is developing in other areas, including infectious diseases treatment. In this context, we are collaborating with pharmaceutical companies to develop two types of tests – companion and supportive/complementary tests. The goal is to build on the value of diagnostics to optimize treatment prescription.

Our companion diagnostic tests are mandatory when prescribing certain targeted

therapies, in order to select patients (stratification) who are likely to benefit from this medical intervention for a given condition. They also help identify patients who may be prone to certain serious adverse effects. These tests are based on the identification of a predictive marker (protein, gene, etc.).

Our supportive or complementary tests serve to stratify patients in order to form homogeneous cohorts (clinical condition, pathology and similar pathogens) and thus increase the likelihood of successful

PARTNERSHIP WITH ENTASIS THERAPEUTICS

In 2019, we signed an agreement with U.S. biopharmaceutical company Entasis Therapeutics to use our BIOFIRE® Pneumonia Panel in a 2-year phase 3 clinical trial, known as ATTACK, to evaluate the safety and efficacy of sulbactamdurlobactam. This antibiotic is being developed by Entasis Therapeutics for the treatment of infections caused by multidrug-resistant (especially to carbapenems) strains of Acinetobacter baumannii. ATTACK, whose results were reported in 2022, represents the first successful clinical trial to evaluate a pathogen directed therapy. Our diagnostic panel played a key role in early identification of Acinetobacter baumannii in patient respiratory samples, and thus including them in the study as early as 48 hours.

therapeutic clinical trials. They are also recommended to improve clinical practices and can in particular be used to determine pathogen susceptibility to new antimicrobials. This is the case, for example, with ETEST® and VITEK® 2 products (susceptibility tests), which play a prominent role in the launch and safe prescription of a new anti-infective agent, particularly in the context of increasing antimicrobial resistance.

Based on our existing joint research laboratories in France, in 2019 we created

ROYAL SOCIETY OF CHEMISTRY PRIZE

A multidisciplinary team from Northumbria University, Sunderland University, the Newcastle upon Tyne Hospitals NHS Foundation Trust, and bioMérieux, received the 2022 Analytical Division Horizon Prize from the Royal Society of Chemistry (UK) for the design and development of chromogenic reagents for the rapid detection and identification of pathogenic bacteria.

This innovative work, which is the result of 30 years of collaboration, is part of the fight against multi-drug resistant organisms so that effective and responsible treatments can be monitored. These solutions are integrated into our VITEK®. CHROMID®, and TEMPO® systems.

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OUR INTERNATIONAL RESEARCH COLLABORATIONS

bioMérieux is involved in numerous international research projects to obtain clinical validation of new biomarkers and demonstrate the value of our diagnostic solutions. Here we focus on a few key collaborations.



IMPACCT

The IMPACCT (IMmune Profiling of ICU PAtients to address Chronic Critical illness and ensure healThy ageing) project is funded by the European Commission under the aegis of EIT Health*. It aims to validate the clinical performance of an Immune Profile Panel (IPP) of biomarkers on our BIOFIRE® FILMARRAY® platform. The objective is to identify, among patients with sepsis in the intensive care unit, those at high risk of deterioration due to a faulty immune system, in order to offer them personalized therapy. The observational study, slowed by the health crisis, ended in 2022 with the recruitment of 366 patients. Results will be communicated in 2023.

ISIT TB STUDY

This study focuses on evaluating the diagnostic performance of the ISIT TB transcriptomic prototype on our BIOFIRE® FILMARRAY® platform to distinguish active tuberculosis from latent tuberculosis or another disease with similar symptoms (bacterial infection, viral pneumonia, lung cancer, sarcoidosis, COVID-19). Patient recruitment started in January 2022 in collaboration with University of Cape Town, at 9 sites in South Africa.

DIAMONDS

The DIAMONDS (Diagnosis and Management of Febrile Illness using RNA Personalised Molecular Signature Diagnosis) consortium, which brings together 28 partners, is funded by the European Commission as part of the Horizon 2020 research program. bioMérieux is the only diagnostic manufacturer engaged in this project, whose objective is to identify, through a prototype on our BIOFIRE® FILMARRAY® platform, specific molecular signatures from sources of infection (viral, bacterial, parasitic, etc.) in the case of fever in order to guide diagnosis and management of patients in emergency rooms. The ambition is to recruit 5,000 patients worldwide and to carry out a pilot study on 2,000 patients that would start in mid-2023 for a duration of 18 months.

VALUE-DX

This unique pan-European project, started in 2019, aims to provide scientific evidence of the medical, technological and economic value of *in vitro* diagnostics for an appropriate use of antibiotics. The consortium, half funded by the European Commission under the aegis of IMI**, brings together 26 partners, who we coordinate with the University of Antwerp and the Wellcome Trust. bioMérieux co-leads one of the project's two clinical trials: ADEQUATE (Advanced Diagnostics for Enhanced Quality of Antibiotic prescription in respiratory Tract infections in Emergency rooms), which uses our BIOFIRE® Respiratory 2.1 plus and BIOFIRE® Pneumonia tests to demonstrate the impact of syndromic tests on the management of severe respiratory infections at pediatric emergency departments. ADEQUATE aims to enroll 500 children and will contribute to the establishment of a clinical sample bank at 9 hospital sites in 6 European countries. The project recently helped define and test a concept of AMR data collection via an architecture which ensures confidentiality according to European standards for health data sharing.

RANDOMIZED CLINICAL TRIAL ON PCT

The results of this unprecedented study that we co-funded were published in the *Lancet Infectious Diseases*¹ in late 2022. They reveal that low levels of procalcitonin (PCT) can be used to identify adults with lower respiratory tract infections unlikely to benefit from antibiotic therapy. This is one of the most important trials conducted in years on PCT. It shows the value of this biomarker to help avoid unnecessary antibiotic use for patients.

- * European Institute of Innovation and Technology for Health, an independent body of the European Union that acts as a catalyst for healthcare innovation.
- ** Innovative Medicines Initiative, the world's largest public-private partnership in life sciences, working to improve health by accelerating the development of innovative solutions and patient access.
- 1. Tsalik EL, et al. The Lancet Infectious Diseases. 2022. Published online on Dec 13th, 2022. https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00735-6/fulltext

WHAT OUR RESEARCHERS SAY

She is an expert in flow cytometry, and he is an expert in immunology. She lives in Australia, he lives in France. Lianmei Jiang and Jean-François Llitjos are both researchers and every day they embody the pioneering spirit which drives innovation at bioMérieux.



bioMérieux offers a supportive and collaborative space where scientists, engineers, and manufacturers from companies, research institutions, and academia come together to create, share and test cutting-edge, scalable innovations. We believe that we are entering into an era where biotechnologies will allow us to go beyond detection and responding to more predictive, preventive, personalized and participatory strategies.

Dr Lianmei Jiang,

Senior R&D Scientist (Sydney, Australia)

With a PhD degree in Physical and Analytical Chemistry from École Normale Supérieure (ENS Paris), Lianmei Jiang firstly worked as an innovation scientist in a collaboration between bioMérieux and the École Supérieure de Physique et de Chimie Industrielles (ESPCI) of the City of Paris to develop digital droplet-based microfluidic system in microbial diagnostics. She then relocated in Australia and worked as an independent research fellow at an Australian government funded research centre (ARC Centre of Excellence for Nanoscale BioPhotonics) for six years.

She joined bioMérieux in 2021 to work on BIOBALL®, a precise and accurate certified reference material for microbiological quality control, which has been produced by using proprietary cytometry technology. Her projects are mostly focused on the development of new BIOBALL® products and platform by collaborating with both local and international teams.



As a physician, I can identify issues close to the patient, and as a researcher, I work to propose innovative solutions to solve them. It was precisely to create bridges between these two worlds that I chose to join bioMérieux. It is very important that our company invests in multidisciplinary and collective innovation. By positioning ourselves as an interface between the medical, the academic and the industrial, our joint research laboratory draws the outlines of tomorrow's innovation.

Dr Jean-François Llitjos,

Senior Director R&D Biosciences (Lyon, France)

With a doctorate in Medicine and Fundamental Immunology (MD-PhD), Jean-François Llitjos has completed a double degree in medicine and research at the INSERM School and the University of Paris. He started his career as an intern at Hôpitaux de Paris (AP-HP), specializing in cardiology and then in medical resuscitation, before becoming an assistant clinical manager and then a practicing doctor at AP-HP.

In 2021, he joined bioMérieux as a bioscience expert in the Open Innovation and Partnerships team. At the end of 2022, he took over the management of the joint bioMérieux-HCL-Claude Bernard Lyon 1 University joint research laboratory (see page 24) at Edouard Herriot Hospital in Lyon. His research work is centered on ICU patients and host response to infections, focusing on sepsis and immunosuppression. In parallel with his research activities at bioMérieux, Jean-François Llitjos practices as a medical resuscitator in the Hospices Civils de Lyon (HCL).

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HOW WE ARE REDUCING OUR ENERGY CONSUMPTION

In 2022, the price of energy skyrocketed in some countries around the world, particularly in Europe. bioMérieux, however, has not been waiting for this situation to enact a sustainable policy. In line with our CSR ambitions, we have moved towards decarbonization and energy consumption reduction across our sites with tangible results.

We are taking action on both the energy efficacy of our facilities and the moderation of our usage to support our energy reduction goals.

First, new construction technologies allow us to reduce our consumption. Our new blood culture bottle production facility in Suzhou (China) has received the LEED (Leadership in Energy and Environmental Design) certificate, which aims to promote the high environmental quality of buildings. Existing sites in turn are working on improving the energy usage of our current facilities.

Energy conservation is our priority, ahead of decarbonization, because the best energy is that which is not consumed. This affects everyone, and we are building a strategy adapted to the situation of the countries where we operate, relying on a network of climate energy contacts at our sites to conduct decarbonization studies, regardless of the size of the site.

PRODUCE AND BUY GREEN ENERGY

Our two main levers for decarbonization are producing our own photovoltaic electricity on site and purchasing renewable energy. The installation of solar panels at our sites, which began more than 15 years ago at our Grenoble site, has increased in recent years with the aim of reducing our greenhouse gas emissions. These sites benefit from photovoltaic energy replacing up to 20% of their energy use, as is the case today with our facility in La Balme. Still in France, we have signed a framework contract with Reservoir Sun, a specialist in solar self-consumption, for our sites in Marcyl'Étoile, Craponne and Combourg, which will allow us to eventually achieve more than 10% solar self-consumption per year in Europe.

All our European sites are subject to contracts guaranteeing the supply of renewable electricity (notably hydroelectric) attested by RECS (Renewable Energy Certificate System) certificates, up to 50% in France and 100% in Italy and Spain.



Solar energy is a lever for decarbonization at bioMérieux, like here in Salt Lake City (U.S

At our Saint Louis, U.S. location, we have committed to buying 55% of our total consumption from renewable sources through a partnership with Ameren Missouri, a local electricity and gas service provider.

All of these efforts are paying off as, since 2019, our Company's annual emissions have been equivalent to those of 2015, despite the very strong growth of our business. Other concrete examples for Europe: in 2022, energy consumption at our sites decreased by 8%* (excluding the winter conservation plan in France) and water consumption was reduced by 20%*, equivalent to 17 Olympic swimming pools of potable water saved.

* In absolute value compared to 2019

-50% energy consumed per million euros of revenue. This is the objective bioMérieux has set itself by 2025 (compared to 2015).

DURHAM REDUCES WATER USE

Reducing water use is another major issue, both to conserve the planet's resources and to reduce our overall energy bill. In 2019, the U.S. bioMérieux Durham site implemented a large water recovery plan to capture condensation from air handling units that provides heating and cooling to nearly 28,000 m² of building, as well as capturing reject water from two purified water (USP) systems and five production autoclaves. Savings will be measured soon.

MORE SUSTAINABLE PRODUCTS THROUGH ECO-DESIGN

How do we protect our planet? This question arises at every stage of the lifecycle of our solutions, starting with the critical design phase. Eco-design is a cross-functional approach to making our products less energy-intensive for our customers and reducing the negative impact on the environment.

VIDAS® KUBE™. A NEW ECO-DESIGNED AUTOMATED PLATFORM

VIDAS® KUBE™, our new immunoassay automated platform, was developed based on lessons learned from the range (instruments and reagents). This showed us in particular that the instrument's energy consumption due to maintaining the sample and reagents at 37°C during testing.

That's why VIDAS® KUBE™ has a sleep mode: it can be paused at night when not in use and programmed to restart in the morning at the operator's desired time. Thanks to this innovative feature, energy consumption can be reduced by up to -52%. Other ecodesign criteria were introduced during the development of this instrument. For example, reparability has been improved, and its modularity makes it easier to adapt its capacity to the needs of the laboratory.

the entire product lifecycle, with the aim of improving environmental performance.

Now, any new product in development must pass through at least three eco-design items. Each project undergoes an environmental assessment of about 60 questions. To apply eco-friendly concepts to existing products, our teams are working for example to extend the shelf life of reagents. This will avoid waste due to premature expiration of our products and allow us to transport products by sea, rather than air.

In 2022, we strengthened our eco-design network. It was initially made up of about 30 contacts representing the major functions

Eco-design is taken into account in the of the Company, but we have now opened it development of new products, but also in to eco-partners from each of our European the optimization of existing products. It covers sites. The objective is to promote the concept of eco-design, to stimulate ideation from our teams in the field and to foster the links between Manufacturing and R&D.

> We have developed and deployed e-learning training at the same time, in order to help our team members enhance their skills on the subject. The program consists of two modules:

- a "basic" level, intended for all team members, which explains the life cycle of a product and its impact on the environment;
- an "advanced" level, for key functions directly concerned by eco-design (R&D, Manufacturing, Purchasing, Supply Chain.

MORE ECO-FRIENDLY PACKAGING



After replacing white cardboard boxes with brown ones in the production line of VIDAS® reagents and our media plates in 2022, we set out to adopt this eco-packaging for our TEMPO®, NUCLISENS® and GENE-UP® ranges as well as for the tubes and bottles manufactured at our Combourg

site (France). This cardboard packaging has been optimized at the same time (reducing thickness, size of flaps, etc.), which already allows us to save more than 110 tons of cardboard per year.

CONCRETE ACTIONS FOR BIODIVERSITY AT OUR SITES

At each of our sites in Europe, we have evaluated and implemented practical actions to enhance the space given to nature and thus enrich biodiversity.

We absolutely think it's possible to combine an industrial site with biodiversity! We have been working with our green space maintenance partners at our sites since 2015 to develop areas of natural vegetation that are more biodiverse. In concrete terms, we no longer use pesticides, we practice differential mowing to leave patches of wild vegetation, we mulch trees and beds. We are also installing beehives, bird or bat nest boxes, and herb spirals to harbor insects. We are building low walls to accommodate small creatures and ponds to house aquatic plants and diverse wildlife. Another example is the development of a specific flora.

As part of our corporate sponsorship initiatives in favor of biodiversity, in 2021 we signed a 3-year partnership with Ligue pour la Protection des Oiseaux (LPO) in France, guidance to make our space management Birdlife in Spain and Lega Italiana Protezione Uccelli (LIPU) in Italy. These associations biodiversity annually.



bioMérieux team members participated in creating a pond at the Craponne site (France).

assess the biodiversity potential of the land and its natural features. They also provide more environmentally-friendly and track

carried out an evaluation of our sites to In France, our Craponne and Marcv-l'Étoile sites have gained the status of "LPO refuge sites" thanks to their achievements in favor of biodiversity, as part of an action plan conducted in connection with LPO. Other sites are in the process of acquiring this status.

CLIMATE FRESK FOR EVERYONE!

Following a pilot launch in 2021 and in accordance with our CSR strategy, in 2022 we acted to raise awareness of climate change among our team members through collaborative "Climate Fresk" workshops.

The Executive Committee and all top management at bioMérieux were among those who participated in the initiative. Workshops were also held in our three regions (America / Europe, Middle East, Africa / Asia Pacific) within various functions, and volunteer facilitators were trained to run sessions in their respective countries.

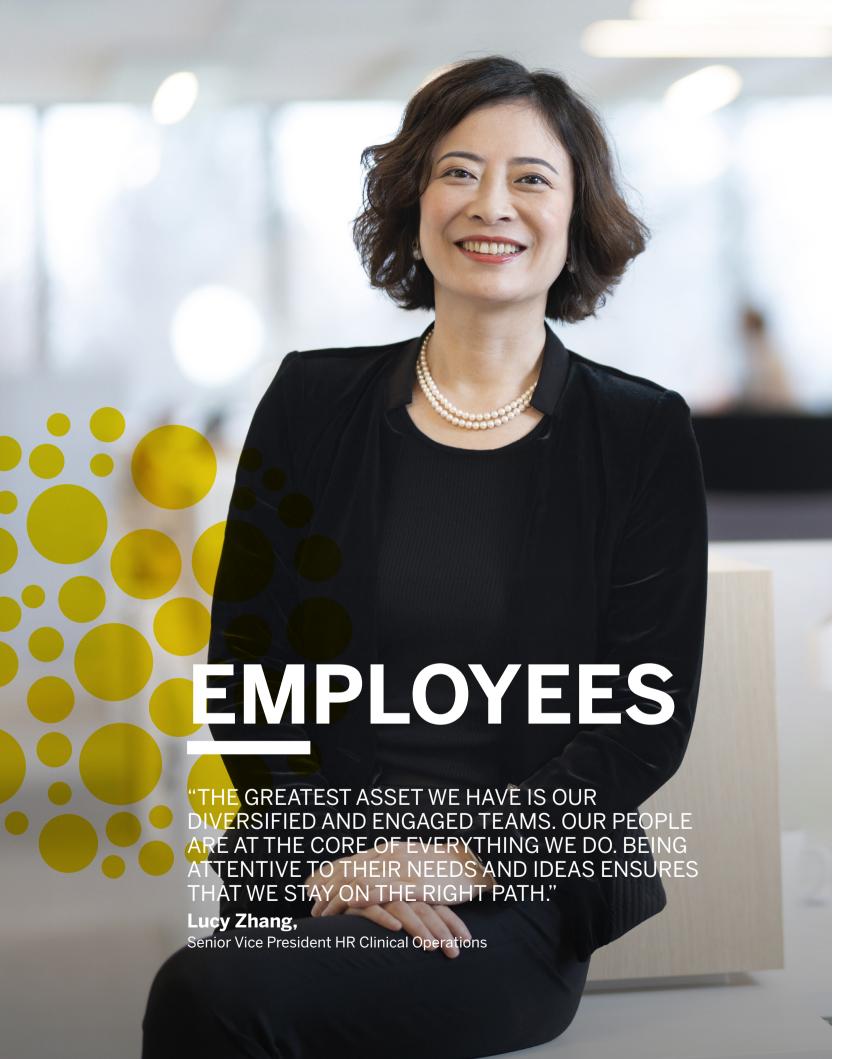
Our goal is to educate team members whose activities are directly related to our climate ambition, and to raise awareness among all teams, across all positions, to create a culture that encourages efforts to reduce our greenhouse gas emissions.



100% of the Supply Chain Chile team took part in the Climate Fresk in 2022. Now we are much more conscious of our responsibility towards the environment, and we realized that small actions can contribute to limit global warming.

Ana Claudia Neves,

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LISTENING, UNDERSTANDING & ACTING - THE KEY TO OUR TEAMS' COMMITMENT

Our 13,800 team members are our most valuable asset. We are focused on cultivating their spirit of innovation and their collective commitment. In order to create a unique experience for our people, we must have their perspectives that shape their life at bioMérieux. That's why, in 2022, we launched a program called "Voice of Employee".

Today's difficult circumstances are challenging everything in the world of work. It's important that our people feel heard and trusted to play a role in driving changes so that they can do their best work. According to a study conducted by the Workforce Institute in 2021 in 11 countries, 92% of highly committed employees feel heard at work¹.

Listening, understanding, acting; these are the foundations of our "Voice of Employee" global engagement program. We want to establish a diverse work environment in which our team members feel free to be themselves, express their expectations, and be proactive in improving their experience at bioMérieux.

An important first step: In June 2022, a global anonymous engagement survey was conducted among our 13,800 team members. The response rate was 75%, a high level that shows interest within our teams for this listening-based process. The survey included 30 questions covering six topics related to the team members' experience at bioMérieux:

- positive workplace;
- trust in the organization;
- growth opportunity;
- supportive management;
- health and well-being;
- meaningful work.

Today's difficult circumstances are challenging everything in the world of work. It's important that our people feel heard and their desire to be game changers.

As data was collected and analyzed, action plans were initiated at two levels: at the local level, as close as possible to team members together with their managers; and at the global level, in order to contribute to a common culture. The actions are being implemented in a transparent manner, working together with the teams.

This survey constitutes a baseline. It will be carried out regularly as part of a process of continuous listening, thus making it possible to monitor the engagement of team members over time

1 https://workforceinstitute.org/wp-content/uploads/The-Heardand-the-Heard-Nots.pdf



Our "Voice of Employee" program aims to listen to and understand our team members in order to have a positive impact on their daily lives. Everyone can express themselves based on their own personal experience and contribute to improving the collective experience. We understand the need to continuously capture what matters most to each of us. Together, our voices can shape the future. #LifeAtbioMérieux

Tamela Smith,Vice President, Employee Engagement

WORLDWIDE RECOGNITION OF OUR HR PRACTICES

TOP EMPLOYER

bioMérieux is now certified in

15 countries (Argentina, Belgium,
Brazil, Chile, China, Colombia, Egypt,
France, Germany, Italy, Ivory Coast,
Kenya, Poland, South Africa and Spain)
and 3 regions (Africa, Europe and Latin
America).

GLASSDOOR

In January 2022, bioMérieux was ranked **first among French companies** preferred by team members in the Glassdoor ranking of "France's Best Employers", with a score of 4.7 out of 5.

HEALTH AND WELL-BEING: WE TAKE CARE OF OUR TEAM MEMBERS

We are committed to helping our team members thrive in their work environment. Health & well-being is one of the six pillars of people experience at bioMérieux.

In support of this ambition, in 2022, we launched a review of our global health promotion & well-being activities. This analysis consisted of an assessment of existing initiatives and practices and proposals of new programs that could be implemented at local and regional levels of the organization to enhance well-being.

Two of the pilot programs deployed include: • in France, talks on topics related to health and well-being (link between stress and the immune system, impact of intermittent fasting on health, testimony from a team member who was treated for breast cancer) and workshops (sophrology,

• in several countries in Eastern Europe and the Middle East, testing of a platform of mindfulness tools, available in 12 languages

gigong, reflexology);

to help team members manage stressful situations and events, and thus improve their well-being at work.

At the same time, our sites and subsidiaries are behind numerous local initiatives. For example, in Latin America, weekly yoga taken place with great success. These are all good practices that serve as examples and sources of inspiration for our overall ambition.

JUST IN!

bioMérieux ranks 14th among femalefriendly companies in 2022, according to Forbes magazine, which ranks the top 400 companies worldwide with the most progressive policies for women.



We have also renewed our partnerships with Health Advocate in the United States and with Eutelmed in other countries around the classes, collective coaching sessions on world, which are platforms that allow team personal or professional topics, and informal members and their families to have access meetups for coffee with site managers have to psychological and well-being support on a voluntary basis and free of charge.

We continuously strive to give our team members the means to play an active role in their own well-being and to strengthen our collective ability to take care of each other.

ABOUT DIVERSITY AND INCLUSION

At bioMérieux, we value the differences of our team members, our partners, and our customers. We are committed to creating a culture of belonging and acceptance where all feel respected, supported, and included. We provide opportunities to all our team members, such as our psychological support unit available 24 hours a day, and our discussion forums. Since 2013, bioMérieux has operated an international network, open to all genders, to promote greater gender balance in management positions: the Women Ready for Leadership Diversity (WoRLD) network. Another network, bioBasadi, has also been active in Africa since 2019 to support women. In terms of diversity and inclusion, bioMérieux has set the following targets for 2025: having more than 40% of women and 35% of international profiles in the Company's team, reporting directly to the Executive Committee.

DEVELOP THE SAFETY CULTURE AT EVERY LEVEL OF THE ORGANIZATION

Limiting the risk of a workplace accident on a daily basis is everyone's job, whether you work in a production area, R&D laboratory, or in a tertiary space. In 2022, our efforts focused on raising manager awareness through the "Safety Leadership"

been a priority for bioMérieux. So far, we have focused our efforts on following the rules and improving the way we work - with great success! Accidents at bioMérieux have declined by 70% over the past decade, while at the same time our sales have quadrupled.

We want to go even further. This requires increased vigilance from every team member, every day, and means giving them the necessary decision-making tools to avoid injury. To do this, we need to be able to talk about security across all levels and all sites. Managers have a central role in building this safety culture. That's why we've developed

Occupational health and safety has long a new program called "Safety Leadership". It allows managers and executives to ask themselves how they approach safety. This 2-4 day in person training delivers the same message to all participants and promotes an exemplary and visible management position focused on positive communication. It's no longer just about managing safety, it's about creating the conditions for safety.

> In 2020, we set ambitious targets for reducing workplace accidents by 2025: frequency rate of lost-time accidents reduced by half to stand at 0.6*, and a frequency rate of total accidents with and without lost time of 1.2*.



After attending the "Safety Leadership" pilot session, I immediately changed the way I tackle safety during my site visits. I now base my approach on informal discussions, open-ended questions, and active listening. The idea of reason is at the heart of safety priorities: we need to ask why we have these rules, practices and habits, do the groundwork within each team on the working environment, conditions and atmosphere. The objective is to train team members but also to engage them, to get them excited, so they feel empowered in terms of health and safety.

Bénédicte Blot.

Director of the bioMérieux site in La Balme-les-Grottes (France)



In China, construction of our blood culture bottle manufacturing site in Suzhou was completed in 2022. Thanks to the daily focus on health and safety and our drive for continuous improvement, no lost-time accidents have been reported since the start of the work in July 2020 and we have passed the threshold of one million working hours without any accident.

* (Number of accidents/hours worked) x 1,000,000.

: frequency rate of lost-time accidents 2.6* : frequency rate of accident with and without accident

8 of our major industrial sites are ISO 45001 certified

(2022 figures)

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INCREASED ACCESS TO DEVELOPMENT AND TRAINING



Training of our sales teams in Egypt in 2022.

Because work environment, jobs and tools are constantly evolving, we offer each team member the opportunity to deepen their knowledge and acquire new skills. The training experience at bioMérieux has been completely redesigned to allow easier and more personalized access to our offer for development.

hours of training per team member

: training completion rate (2022 figures)

Need to learn technical or behavioral skills? Need to adapt to changes in your tasks? Want to move into a new position? At every stage of professional life, team member development is key.

Our overall approach is based on training, but not on that alone. We believe in the virtue of the "70/20/10 learning model" where 70% of our knowledge and competence comes from our experience on the job, 20% comes from our interactions with those around us (colleagues, managers, external experts)

and 10% comes from formal learning (in the classroom, in the workshop or remotely). With this model, each team member is asked to create and follow their development plan throughout the year.

We have made a new digital learning platform available to our team members. It is very easy to access via our intranet, and allows everyone to find resources that match their development needs, interests and profile. The platform includes nearly 7,000 items of training and development content.

MÉRIEUX UNIVERSITÉ. THE INTERNAL UNIVERSITY FOR OUR TEAM MEMBERS

Mérieux Université, the university of the Institut Mérieux Group, facilitates the professional development of our teams all over the world. It designs and runs management and leadership training as well as soft skills training such as emotional intelligence, feedback or teamwork. The university focuses on understanding how jobs and the environment have changed in the Group's companies, anticipating the skills required and supporting the development of team members. In 2022,

Mérieux Université launched a conference cycle called Ed Talks to get everyone thinking and bring a fresh perspective on our managerial practices. These conferences, led by external experts, shed light on different aspects of leadership. The first themes focused on "Engagement", "The virtues of failure" and "Manager, leader or boss?". Hosted in person, and available online, these Ed Talks will continue in 2023.

INTERNAL MOBILITY TO FOSTER ENGAGEMENT AND PERFORMANCE

In the face of growth and recruitment challenges, internal mobility is a winning strategy for bioMérieux, which, as a world leader in its sector, seeks to attract the best talent. It's also a win for team members, who can grow and develop.

The talent war is heating up! The job market We encourage internal mobility whenever a has been tight in many countries since the COVID-19 pandemic, and filling certain positions is a real challenge for businesses. This is why bioMérieux has made internal mobility a strong focus of its Human Resources policy.

Our assets are undeniable: as a growing company with nearly 14,000 team members in 45 countries, bioMérieux has the scale to offer its teams many opportunities for functional or geographical development. And remember, additional opportunities are available within the Institut Mérieux Group and its subsidiaries.

team member's goals align with the HR needs of the business. With the help of managers and training, we put in place the right conditions so each team member who wishes to can follow their self-development project. Manager-team member conversations provide a framework for addressing internal mobility. In addition, a dedicated website and regular communications are used to promote the list of positions open for recruitment.

The effects of our internal mobility policy can be measured in the long term. The number of permanent contract positions filled by team members already on permanent contracts at bioMérieux is up 3.6% in 2022 compared to 2021. We are convinced that evolving internally improves team member engagement and retention while acting as lever to improve our collective performance.

 $\frac{1}{10}$ of the permanent contract job openings at bioMérieux in 2022 were filled by team members who were already on permanent contracts at the company.

OUR TEAM MEMBERS SAY



Passionate with molecular diagnostics, I joined bioMérieux in Mumbai as an Application Specialist for Molecular Biology products way back in 2006. In 2010, I moved to the marketing department for Molecular Biology in New Delhi. Thanks to this experience, I reinforced my marketing and communication strategies skills. This also allowed me to move to Singapore in my current position around 2020. Supportive management and our company mindset promoting work with crosscultural teams were key factors in my career path choices.

Jyoti Chainani, Director, Marketing, Asia Pacific



Our Marcy-l'Étoile site was having difficulty recruiting maintenance technician profiles. In response the HR teams looked internally, launching a training program. After 10 years as a Production Technician for the VIDAS® range, I wanted to expand my skills and switch to maintenance. I decided to apply and my profile was selected, so I was given the opportunity to take a Professional Qualification Certificate through personalized training. I was seconded for one year from Production to Maintenance, and the training was completed entirely during work hours. For me, the experience went very well and was very pleasant.

Romain Pagnon.

Maintenance Technician at Marcy-l'Étoile (France)

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COMMITTED TO PROMOTING THE VALUE OF DIAGNOSTICS

Our Public and Government Affairs Department is dedicated to raising awareness among decision makers about the medical and economic value of *in vitro* diagnostics. We are also involved in collective initiatives alongside industry players.

Actions by bioMérieux and the entire *in vitro* diagnostic industry have had a visible impact: the key role of diagnostics in public health is more and more recognized.

Another area bioMérieux is working on is recognizing the importance of diagnostics across the continuum of care. Actions taken collectively are paying off as diagnostic

Significant advances have been made in recent months around access to the diagnostic solutions market, starting with the entry into force of the new European *In Vitro* Diagnostics Regulation (IVDR – see page 20) governing CE marking. Public authorities are committed to a smooth transition. bioMérieux, along with other industry players, advocates for easier market access for new products and disruptive innovations as well as the establishment of an adequate certification infrastructure to meet market needs.

In France, the announcement of the launch of redesigning the repository of innovative acts outside the nomenclature of biology and anatomopathology (RIHN) is a positive step to promote the deployment of diagnostic innovation. Similarly in the U.S., the proposed reforms, supported by both the IVD industry and the Food and Drug Administration, should enable faster access of diagnostic tests to the American market.

Another area bioMérieux is working on is recognizing the importance of diagnostics across the continuum of care. Actions taken collectively are paying off as diagnostic solutions are increasingly at the heart of healthcare systems. It is necessary to move from care pathway logic to health pathway logic, incorporating prevention, testing, monitoring and information. In 2022, for example, diagnostics were mentioned in the work of the European Health Emergency Preparedness and Response Authority (HERA) on pandemic prevention.

Public authorities understand that *in vitro* diagnostics are one of the answers to our major health challenges. Going forward, two themes will be at the heart of our thinking: deploying biology closer to the patient, and digitizing data for earlier and more accurate diagnosis, which requires enabling system interoperability and guarding against cybercrime.

50

This is the number of country general managers, region directors and Medical Affairs representatives trained in Public and Government Affairs in 2022.

OUR GLOBAL COMMITMENT

bioMérieux serves on the board of directors of various professional organizations: **AdvaMed** in the United States (Advanced Medical Technology Association), **MedTech Europe**, **AMR IA** in Switzerland (AntiMicrobial Resistance Industry Alliance) and **SIDIV** in France (the French *In Vitro* Diagnostic Industry Association). We are also members of **APACMed** (Asia Pacific Medical Technology Association) and **Mecomed** in the Middle East.

GATHERING FRENCH ACTORS

bioMérieux is a founding member of the National *In Vitro* Diagnostic "Filière" in France, an initiative carried since 2020 by the French *In Vitro* Diagnostic Industry Association (SIDIV) and the health competitiveness clusters Eurobiomed, Lyonbiopôle and Medicen Paris Région. It brings together all *in vitro* diagnostics players to improve patient care, strengthen health system efficiency and help restore the country's health autonomy.

ALWAYS CLOSER TO PATIENTS



OUR PATIENT CHARTER, OUR ETHICS GUARANTEE

In order to ensure that our interactions with patient organizations comply with our strong ethical requirements, all team members who engage with patients and patient organizations are committed to our Patient Value Strategy Charter, available on our website.

Since 2020, we have been working to develop and enrich our relationships with patient organizations. The challenge is twofold: raising patient awareness on the importance of in vitro diagnostics in the care pathway, and integrating them into our efforts and decision-making processes.

We have a dozen partner associations We strongly believe that connecting patients for two years. Collaborations with patient value for both our business and society. organizations are focused on three public health themes in which patients should be By integrating this commitment into our

- the overall value of in vitro diagnostics, focusing on sepsis, kidney infections, and transplants;
- the value of diagnostics in combating antimicrobial resistance in cystic fibrosis and in the future in tuberculosis:
- finally, the value of the syndromic approach especially in diagnosing respiratory and gastrointestinal infections.

worldwide with 20 projects supported and healthcare industries is critical to creating

business, we can better consider their expectations as we develop our solutions, and educate and inform them about the role of diagnostics and the importance of antimicrobial stewardship.

WHO ARE OUR PARTNER ASSOCIATIONS?

Collaborations with patient organizations, established in a spirit of co-construction, taking into account the needs and objectives of the associations, are carried out in different ways; creating websites or digital platforms, conducting surveys on antimicrobial resistance and sepsis, supporting the creation of patient groups or associations, issuing communication materials (videos, fact sheets...), contributing to information and awareness campaigns, site visits, etc.

Here is a list of our partner associations in 2022: Asociación Daño Cerebral Invisible, France Rein, France Sepsis Association, International Foundation for Gastrointestinal Disorders – IFFGD, Health First Europe (coordinator of the first pan-European group of patients against antimicrobial resistance), Instituto Latino Americano de Sepse – ILAS, Sepsis Alliance, Sporlygref, UK Sepsis Trust and Unidos Pela Vida.

SOME ACTIONS TAKEN IN 2022





Support for the creation of educational content about traumatic brain

project coordinated by bioMérieux.



Visit to our Marcyl'Étoile sites of representatives from France Sepsis Association, France



Creation of fact sheets on



We need to play our part as patients and educate ourselves about antibiotics and their use so we don't put ourselves at risk of resistance. It is important not to ask for antibiotics but have conversations with our doctors, based on diagnostics, and be able to know when those medications are going to be useful or not.

Vanessa Carter.

Antimicrobial resistance survivor and One Health Advocate. Vanessa Carter testified at a webinar held from our headquarters in Marcy-l'Étoile in November 2022 for the World Antimicrobial Awareness Week

2022 ANNUAL REPORT HEALTHCARE ECOSYSTEM

BE CUSTOMER-ORIENTED TO HEAR AND BETTER SATISFY THEIR NEEDS

DID YOU SAY "OMNI-CHANNEL"?

Email, website, phone and even fax sometimes... the customer is free to choose their favourite communication channel to interact with bioMérieux, and they can change it at any time without affecting the tracking of their case. This "omni-channel" approach facilitates the customer relationship by ensuring transparency and consistency of exchanges. And with this approach, we have the ability to meet the needs of any type of customer, regardless of size, country or digital maturity.

Our "customer portal", launched in 2019, is now available in 34 countries. An additional 10 countries were rolled out in 2022, enabling cover of all of ou subsidiaries. This portal offers many services, such as technical support incident reporting and management, a callback request, appointment history, purchase order creation and tracking, invoice archiving, and access to bioMérieux product technical documentation. Given the success of this digital platform, the concept has been duplicated for our distributors (see page 48).



Our team members celebrating Global Customer Service Week in October 2022.

Customer satisfaction is at the center of what we do. Customer Service plays a key role, globally, regionally and locally. Other functions in our organization are equally involved in optimizing our customer experience.

Customer focus is everyone's business, so from 2015, we have been raising awareness of customer focus among the team members involved. The goal is to improve our customers' experience to "increase loyalty." A customer who is considered "loyal" will continue to partner with bioMérieux and recommend our solutions and services.

In 2022, we wanted to go even further. We have decided to increase the frequency of our satisfaction surveys, now annual, to better listen to our customers and prioritize their needs. The 2022 study collected more than 3,800 responses in 27 countries. We chose to focus our questions on the customer journey rather than the performance of our internal functions. In 2023, we will analyze all the data collected in detail in order to put in place relevant action plans, as we did following the previous survey conducted in 2020.

This is an approach that will increase the effectiveness of our Customer Service. The role of its 1,600 team members is to provide customers with a tailored and scalable set of services to improve their operational performance. Thanks to its international presence and its close proximity to customers, it fulfills two essential missions to improve public health around the world:

- ensuring the same quality level of service worldwide, starting with the design phase of the solutions;
- being present from the pre-sales technical discussions and continuing through each step of installation, training, qualification processes and long-term follow-up to answer technical questions and support.

WHAT OUR CUSTOMERS SAY

What do a European leader in medical biology and a wine producer in the U.S. have in common? Both need rapid and reliable diagnostic tests to identify pathogens and fight contaminations.



SYNLAB Group (Europe)



bioMérieux is an innovative company which continuously improves its offer and also proposes new solutions. What we particularly value is the fact that bioMérieux is truly specialized in microbiology and infectious diseases. For us as a company that is embedded into the diagnostic ecosystem, serving physicians and hospitals as well as patients, bioMérieux's solutions provide a real benefit to our operations.

Santiago Valor,

Chief Medical Officer, SYNLAB Group

The SYNLAB Group is the leader in medical diagnostic services and specialty testing in Europe. With operations in 36 countries across four continents and more than 28,000 team members worldwide, SYNLAB runs numerous microbiology labs, processing millions of samples a year and offering a full range of innovative and reliable medical diagnostics to patients, practicing doctors, hospitals and clinics, as well as governments and corporates.

bioMérieux and the SYNLAB Group have a long-lasting relationship that was intensified in the latest years. Now, our partner counts hundreds of bioMérieux's instruments. They made good experience with the seamless workflow integration of MYLA®, and gradually expanded scope across several areas of our portfolio.



Jackson Family Wines (United States)



At Jackson Family Wines, our steadfast commitment to quality through traditional and innovative methodologies has always created new pathways for leadership and collaboration. bioMérieux is a likeminded organization that shares our entrepreneurial spirit and drive to develop meaningful solutions. They were an obvious choice of a partner to develop an innovative solution that will not only benefit Jackson Family Wines, but also the broader wine industry.

Marcia Torres Forno,

Matanzas Creek Winemaker, Jackson Family Wines

This family-owned, vineyard-based company has a penchant for exploration. Founder Jess Jackson placed his faith in farming and a meticulous expression of wine with his first landscape-changing vintage in 1982 an ethos that chairperson Barbara Banke, the Jackson family, and employees continue to uphold to this day. The Jackson family's collection of 40 wineries spans across significant wine-growing regions: United States (California, Oregon), France, Italy, Australia, Chile, and South Africa.

Together with bioMérieux, they co-created BOTTLESAFETM, the latest innovation for the wine industry, to verify final filtration with results in less than four hours. This onsite solution is versatile to rapidly detect common wine spoilers in both red and white wines and is well-suited for any size wine quality program. The BOTTLESAFETM assay is the result of bioMérieux's xPRO program (see page 19).

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BEING SUPPORTIVE AND ENGAGED IN ALL OUR LOCATIONS













Sharing results of our growth in the countries where we operate is deeply-rooted in our corporate culture. We support social initiatives for vulnerable populations and encourage our teams to volunteer with local associations and NGOs.

SUPPORTING VULNERABLE PEOPLE

In France, all of our sites participated in a clothing drive (photo 5) for La Cravate Solidaire association, which fights discrimination when hiring. We are France's 2nd largest donor company, with 243 kg of clothing donated to help those in need to be In Spain and Portugal, team members at their best for job interviews!

With the support of our Brazilian subsidiary, team members collected clothing, shoes and household items (photo 6) to help families in the Rio de Janeiro area who lost their homes due to heavy rainfall in the country. The donations, given to the local NGO CDDH-**Petrópolis**, were distributed personally by team members to the affected families.

17 team members from Europe and the Middle East cycled from Paris to London (photo 4), a sporting challenge combined with a fundraiser for **Railway Children**, who are dedicated to protecting and helping street children worldwide.

In the UK, our local team collected toys for children undergoing medical treatment in hospital and clothing for young orphans. They also collected donations to purchase staple goods for older adults.

mobilized for a day to collect food donations (photo 3) at supermarkets for the Food Bank.

In the United States, a team in Salt Lake City packaged up 200 food kits for children in need as part of the **Bridging the Gap** food distribution program. The team also bought, collected and wrapped gifts for the **Salvation** Army Angel Tree program, which supports families in need (photo 2).

Also in Salt Lake City, team members volunteered to help Habitat for Humanity (photo 1), which builds quality, affordable housing. During this project, team members helped build a subdivision of 10 multifamily duplexes and a park.

L'ENTREPRISE **DES POSSIBLES**

262 days of leave were given by our team members in 2022 in favor of L'Entreprise des Possibles and bioMérieux contributed 100%. L'Entreprise des Possibles is a group that assists the homeless and the most vulnerable and carries out many activities: shelter, reintegration assistance, food assistance, access to care and hygiene.



distributed by bioMérieux in 2022 as part of its sponsorship activities.

FIGHT AGAINST ANTIMICROBIAL RESISTANCE

In Spain, as part of the World Antimicrobial Awareness Week in November, team members participated in the **Run Without Resistance!** race in Madrid

In India, team members cycled between Manipal and Udupi, joining around 100 participants, to demonstrate how the actions of individuals, families, healthcare professionals and communities can affect the spread of antimicrobial resistance.

ACCESS TO CULTURE AND EDUCATION

As part of our support for the **Festival Lumière**, an international film event hosted by the Institut Lumière in the Lyon region (France), we hosted a multi-month exhibition on the invention of cinema at the heart of our Marcy l'Étoile Campus.

Still in France, after awarding the "En Vie De Sciences" Prize of the Fondation CGénial national competition to pupils of the Léonce Bourliaguet (Dordogne) high school in May, we welcomed them to our Marcy-l'Étoile site in June. These young science enthusiasts enioved a day full of discoveries.

In China, our team members and subsidiary donated 1,354 books as part of the **Distant** project to support the creation of a municipal library in a remote mountain village, promoting access to education (see photo on the left).

As part of our partnership with the **Suzhou** High-tech Zone Charity Federation, our Chinese teams have visited two schools to raise awareness of philanthropy in order to build a more supportive society.

COMMITTED TO HELPING THE UKRAINIAN PEOPLE



True to its commitments to the most vulnerable populations, bioMérieux has come to the aid of Ukrainians. Our teams have taken strong action throughout the year to support the victims of the conflict, especially refugees who have relocated to

This assistance has taken several forms in 2022:

- As part of a corporate sponsorship program, we made financial donations to the French Red Cross and the Polish association Polska Akcja Humanitarna.
- Material collections at our various sites in Europe have resulted in 5 tons of staple products, clothing, toys, school supplies, etc. These donations were distributed to the population in Ukraine and to Ukrainian refugees in Poland, thanks to the support of our European Supply Chain departments. In Poland, our Shared Service Center has arranged for the collection and distribution of donations to nearby schools in Warsaw welcoming many Ukrainian
- In addition, bioMérieux has hired three Ukrainian women at our Warsaw Shared Service Center to facilitate their integration into Poland.

BIOMÉRIEUX ENDOWMENT FUND FOR EDUCATION: 26 PROJECTS SELECTED

Established in 2020, this non-profit organization is dedicated to promoting equal opportunities through and in education to help everyone find their place in the world.

Educational support for children from an early age enables the acquisition of fundamental knowledge as well as the emotional and cognitive development essential for their future. The Endowment Fund supports projects in countries where bioMérieux teams are present, and which help children from ages 0 to 8, aiming to give them self-confidence and the desire and means to go further.

With an initial bioMérieux endowment of €20 million, the Fund got off the ground in 2021 with the launch of 6 projects. 20 new projects were selected in 2022, bringing the number of projects to 26, with a duration ranging from 1 to 3 years and a total allocation of €4.3 million.

The operation of the Endowment Fund is unique in that it relies on the involvement of bioMérieux team members. They may volunteer to take on different roles such as area coordinator, project owner, one-time



The Endowment Fund supported UNICEF programs in Kenya in 2022, such as in this school which bioMérieux team members visited.

grant them days during their working hours Endowment Fund: "I am extremely proud to to carry out these missions.

Sophie Ablott, a team member in the Open Innovation and Partnerships department. volunteer, or ambassador, bioMérieux may chose to be the France coordinator of the

be involved in the Endowment Fund's activities and to share bioMérieux's commitment to vulnerable populations. Helping disadvantaged people is important to me. It echoes my values

SUPPORTING THE FOUNDATIONS **CREATED BY THE MÉRIEUX FAMILY**

Each year, bioMérieux supports the Fondation for Medical Research has joined the independent foundation under the aegis of the Institut de France, and the state-approved Mérieux Foundation. These foundations work in resource-limited countries to fight infectious diseases and sustainably improve the quality of life and health of vulnerable populations, especially mothers and children.

In the fight against infectious diseases, action has been taken in 2022 to advance research and knowledge about antimicrobial resistance, tuberculosis and pneumonia. A hygiene and environmental laboratory was built at the Pasteur Center of Cameroon in Yaoundé to boost local capacity, and training sessions were provided to laboratory professionals in Mali and Guinea. The Congolese Foundation

Christophe et Rodolphe Mérieux, an GABRIEL network, an international scientific collaboration led by the Mérieux Foundation.

> In addition, the Charles Mérieux Infectiology Centre in Madagascar was named as "National Reference Laboratory for the Surveillance of Resistance to Antiliprosis".

Vulnerable mothers and children were supported by several actions in 2022: inauguration of a new building for the Akamasoa Association's Faculty of Languages (Madagascar), start-up of a nutritional supplement plant with products distributed in 20 schools to reduce the rate of absenteeism (Madagascar), and construction of a maternity unit (Congo).

donated to the Fondation Christophe et Rodolphe Mérieux;

donated to the Mérieux Foundation. (2022 figures)

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Our collaboration with bioMérieux started in the early 90s and since that time it has evolved as a partnership, being more than a simple distributor to supplier relationship. bioMérieux is now involved in our day-to-day business. being supportive and providing us solutions that help us better understand and fulfill our market needs.

Slim Khaled, Technical Manager, Maghreb Medical Maintenance, Tunisia



We have partnered with bioMérieux for more than 25 years. Together we have seen our customers equip their laboratories with state-of-the-art technology to deliver better and faster results. Today, we are embracing new challenges to fight against AMR and improve public health. We are growing with a strong commitment to our environment and society. We are a proud bioMérieux partner, a proud game changer.

Carla Brenes. General Manager, Tecno Diagnóstica, Costa Rica

A NETWORK OF EXCELLENCE THANKS TO OUR DISTRIBUTORS



The bioSTAR awarded distributors met together at Marcy-l'Étoile in 2022.

In addition to its subsidiaries, bioMérieux relies on channel partners to facilitate access to diagnostics around the world. This extensive partner network allows us to serve 160 countries. They are trained and supported to best satisfy our customers. for the benefit of patients and consumers.

Partnership with a distributor goes way beyond just the bottom line. We have longterm relationships with our many channel partners based on transparency and trust. We are committed to supporting each of them so they can ensure the same level of excellence as the bioMérieux teams, to ensure a unique customer experience and optimal satisfaction.

In 2021, we launched the bioSTAR (Strategic Teamwork Achievement and Recognition) program to recognize the successes and contributions of our distributors. This multi-year program spotlights partners who exemplify operational excellence in customer service and who contribute to our commercial success in the clinical and industrial fields. In 2022, 14 channel partners received the bioSTAR trophy.

Distributor training is essential to engage them in our strategic issues, so each bioMérieux function (Supply Chain, Finance, Legal, Ethics and Compliance, Medical Affairs, etc.) has created e-learning modules for them, divided into three levels: basic, advanced and expert.

CSR awareness is also an important dimension in our relationship with distributors; the social, ethical and environmental footprint of our products and services cannot be separated from our partners' business practices. That's why we've designed a specific CSR training module. The goal for 2025 is for 55% of our distributor sales to be made by partners who have completed this training (compared to 11% in 2022). In addition, 10 of our channel partners were certified by the CSR rating agency EcoVadis in 2022. Our ambition in 2023 is for an additional 20 partners to enter this external assessment process.

A NEW DIGITAL PLATFORM

In order to facilitate exchange with our distributors, we are deploying a new collaborative digital platform. This gives them access to a great deal of information and many features (commercial and technical product documentation, order registration, etc.) as well as our e-learning training. The platform was launched in 5 pilot countries in late 2022 and 35 more will be available in 2023.

RESPONSIBLE PURCHASING FOR SUSTAINABLE RELATIONSHIPS



This is our 2022 EcoVadis score for responsible purchasing.

Buying responsibly means choosing products and suppliers with the most positive economic, environmental and social impact. This approach is part of our CSR strategy and also responds to a real competitive challenge. The expectations of our stakeholders in this, both internal and external, are growing.

of our collaborations with our suppliers and subcontractors. To select them, we look at criteria such as respect for human rights and environmental, social and ethical compliance. We also measure their willingness to apply responsible practices and engage in continuous improvement. CSR performance is part of the final purchase choice, alongside quality, distribution performance, innovation capacity and risks (financial, geographical, political, human, environmental).

What concrete actions have we put in place to engage our suppliers in this approach to responsibility? As early as 2018, we created a Responsible Purchasing Charter that details our commitments and expectations. We also ask all our partners to adhere to the Business Principles for Third Parties and encourage them to use internationally recognized external platforms to assess their CSR maturity.

Creating sustainable value is at the heart We also rely on the rating agency EcoVadis to assess our partners' CSR performance, with 536 mostly strategic suppliers rated, representing 55.8% of our 2022 purchasing spend (as against 367 suppliers representing 50.1% of purchasing spend in 2021). We ask those who do not meet the minimum score of 45/100 to provide us with a corrective action plan.

> Internally, in addition to "Climate Fresk" workshops (see page 31), our teams are educated and trained to build skills on every issue related to responsible purchasing. In 2022, they completed several training courses on:

- Code of Conduct and Corruption Prevention Manual (training renewed annually);
- Responsible Purchasing Charter:
- Our suppliers' CSR maturity assessment tools.



CSR assessment of our suppliers, from the identification phase until the selection, helps monitor their performance and their social and environmental commitments. The involvement of these strategic partners has become a major criterion for their selection.

Stéphane de Saint Jean. Senior Vice President, Global Purchasing

2022 ANNUAL REPORT LOCAL COMMUNITIES

OUR GOVERNANCE

THE BOARD OF DIRECTORS

as at December 31, 2022

















The Board of Directors is comprised of nine members, including five independent directors and one director representing employees. It benefits from the varied, complementary skills of the individuals who comprise it:

- executive management of major groups/listed companies;
- international environment;
- strategy and M&A;
- health sector;
- finance/audit;
- CSR:
- digitization.
- 1 ALEXANDRE MÉRIEUX Chairman and Chief Executive Officer(a)
- 2 PHILIPPE ARCHINARD Non-independent director(a)(b)
- 3 JEAN-LUC BÉLINGARD Non-independent director(a)(c)
- 4 HAROLD BOËL Independent director(a)(b)
- 5 MARIE-HÉLÈNE HABERT-DASSAULT Independent director(a)(c)
- 6 MARIE-PAULE KIENY Independent director(a)
- 7 AGNÈS LEMARCHAND Independent director (a) (b)
- 8 FANNY LETIER Independent director (a) (c)
- 9 SYLVAIN ORENGA* Director representing employees(a)(c)

(a) Strategy Committee.

(c) Human Resources, Compensation and CSR Committee. * Successor of Frédéric Besème as of May 23, 2022.

THE EXECUTIVE COMMITTEE

as at January 31, 2023

















The Executive Committee is responsible for implementing the Company's general strategy validated by the Board of Directors. 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. It also reviews the Group's operations, regulatory and quality situation, financial position, sales, headcount and major projects.

- 1 ALEXANDRE MÉRIEUX Chairman and Chief Executive Officer
- 2 PIERRE BOULUD Chief Operating Officer, Clinical Operations
- 3 GUILLAUME BOUHOURS Chief Financial Officer, Executive Vice President, Purchasing & Information Systems
- 4 PIERRE CHARBONNIER Executive Vice President, Global Quality, Manufacturing & Supply Chain
- 5 AUDREY DAUVET General Counsel, Executive Vice President, Legal & Corporate Integrity
- 6 FRANÇOIS LACOSTE Executive Vice President, R&D
- 7 VALÉRIE LEYLDÉ Executive Vice President, Human Resources, Communication and CSR
- 8 MARK MILLER Executive Vice President, Chief Medical Officer
- 9 YASHA MITROTTI Executive Vice President, Industrial Microbiology

FINANCIAL PERFORMANCE

In 2022, bioMérieux achieved a solid performance with robust sales and contributive operating margin above initial expectations. The strong growth of non-respiratory panels in molecular biology, and good results of microbiology and industrial applications offset the slowdown in immunoassays and stable sales for respiratory panels. 2022 has been also an intense year in innovation with the launch of several new platforms that will contribute to strengthen our market positions and sustain our growth in the future.

SALES IN MILLIONS OF EUROS

FREE CASH FLOW (2)

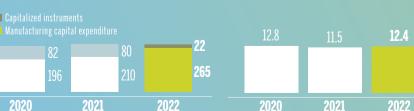
FINANCIAL INDICATORS







CAPITAL EXPENDITURE (in millions of euros) R&D EXPENSES (as a % of revenue)





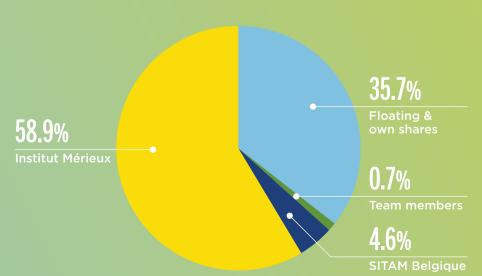


HEADCOUNT AT DECEMBER 31 (3)

CHANGE IN BIOMÉRIEUX SHARE PRICE IN EUROS **DURING 2022 COMPARED WITH BENCHMARK INDICES***



BREAKDOWN OF CAPITAL AS OF DECEMBER 31, 2022



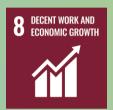
THE BIOMÉRIEUX SHARE

NON-FINANCIAL PERFORMANCE

OUR SUPPORT TO THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

centered approach to its activities in line with the with bioMérieux's commitment to the United Nations



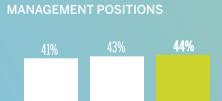




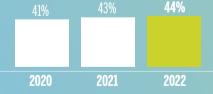




MAIN NON-FINANCIAL **INDICATORS**



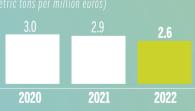
SHARE OF WOMEN IN



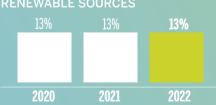
TOTAL ENERGY CONSUMPTION IN RELATION TO SALES



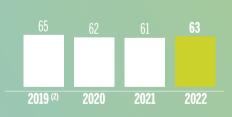
WASTE GENERATION IN RELATION TO SALES



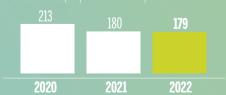




GHG EMISSIONS (1)



WATER CONSUMPTION



MAIN INDEXES AND LABELS





Vigeo Eiris

September 2022

Ranked No. 1 in our sector - 62/100 Top 6% of assessed companies



Féminisation des instances dirigeantes du SBF 120 (1) November 2022 Ranked No. 44/120 Score 70.83/100



RECOGNITION

Science based Targets initiative November 2021 Validation of the roadmap to 1.5°C

OUR ECOVADIS SCORE IN DETAILS







BIOMÉRIEUX S.A.

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- ARGENTINA
- AUSTRALIA

- CHILE

- BRAZIL

- CHINA
- COLOMBIA
- CZECH REPUBLIC

- DENMARK

- EGYPT
- FINLAND
- FRANCE
- GERMANY
- GREECE
- HUNGARY
- IVORY COAST
- JAPAN
- KENYA
- KOREA

- MALAYSIA

- PHILIPPINES
- POLAND
- PORTUGAL
- SERBIA
- SINGAPORE
- SOUTH AFRICA • SPAIN

- SWITZERLAND
- THAILAND
- THE NETHERLANDS
- TURKEY
- UNITED ARAB **EMIRATES**
- UNITED KINGDOM
- USA
- VIETNAM