



WHY PHARMA SHOULD BE **FOCUSING ON ESG**

Report 2022



ESG IN PHARMA: INTRODUCTION

Since early 2020 and the start of the Covid-19 pandemic, the global pharmaceutical industry has shown itself robust and flexible in meeting unprecedented challenges. The rapid development and distribution of vaccines has highlighted not only its ability to respond to dire circumstances, but also the capacity and agility in its supply chains. Nevertheless, behind the short-term challenges with which it has dealt so well lie long-term issues that must be addressed, not least the need to improve progress towards sustainability goals.

The concept of sustainability has evolved over time and is no longer solely focused on harmful emissions into the atmosphere. Today, it is an umbrella term for environmental, social, and governance (ESG) issues. Citizens, governments, regulators and the media are putting pressure on corporations in all industries to address all three pillars of sustainability in a meaningful way, and the pharmaceutical sector is no exception.

One reason the spotlight is on the pharma sector is because it is a major contributor to global greenhouse gas (GHG) emissions, but its impact on the environment is multi-faceted. This impact derives from R&D activity, supply chains, transport and logistics, the disposal of pharmaceutical products, and chemistry. Indeed, a 2019 study by the Booth School of Engineering Practice & Technology, McMaster University, found that the pharmaceutical industry emission intensity is about 55% higher than that of the automotive industry.

Social sustainability requires, in part, corporate accountability for the impact of a business on local communities, but is a complex issue that requires careful balancing of the drive to create and deliver drugs that improve and extend life with the need to be profitable.

This requires a careful analysis of pricing, market access, quality of supply chains, R&D practices, and drug development.

The third pillar, governance, is dependent not only on regulatory frameworks and external initiatives, but also the willingness of pharma companies to commit to meaningful action, regulatory compliance, transparency in sharing data about their activities, quality standards, and ethical business practices.

The fact that many leading industry names are prioritising ESG – such as GlaxoSmithKline (GSK) and AstraZeneca in the environmental space, and Johnson & Johnson (J&J) with its social initiatives – is proof of its importance to the pharma sector as a whole.

As pressure mounts on the industry to become more sustainable, it has a responsibility to back up its words with real actions based on collaborative initiatives and a proactive stance.

The social pillar has been a key focus, as the core goal of the industry is to improve and extend life, but more attention must be given to the environmental and governance components of ESG.



Pharma is a major contributor to greenhouse gas emissions.



Designing less carbon-intensive pharmaceutical facilities will have huge positive impact moving forwards.

ADDRESSING ESG CHALLENGES IN THE PHARMA SECTOR

Within the three pillars of sustainability, addressing greenhouse gas emissions and health and safety concerns are high up the industry's agenda.

Preserving the environment

Ultimately, any measurement of environmental performance focuses on the industry's contribution to climate change, pollution, biodiversity, and the depletion of the world's natural resources. Given that factors such as climate change and pollution can have a significant impact on the health of local and regional populations across the globe, these are key areas for pharma companies to consider.

A recent survey of pharmaceutical industry professionals by GlobalData shows that 70% of 343 respondents believe that the pharma industry is not doing enough to be more environmentally sustainable. Another GlobalData poll found that not identifying the environmental impacts of products early enough in their lifecycle, along with a lack of investment, were the biggest barriers to a more sustainable manufacturing model.

Further research also highlighted the fact that environmental issues were viewed as the most important sustainability area for pharma to address, with 52% of respondents picking climate change as the most pressing environmental issue, and 32% picking pollution.

Fortunately, there are some relatively clear steps that companies and their supply chain partners can take to significantly reduce the level of GHG emissions. Transitioning to an electric vehicle (EV) fleet is one example, not only for corporate fleets but among transport and logistics partners in the supply chain.

To reduce energy consumption and target the single largest contributor to its GHG emissions, a rethink of the design of pharma's buildings – from corporate headquarters to research facilities – would have a dramatic impact. Green design principles have been well established across many

industries and have shown the significant advantages of creating less energy-intensive buildings.

In the manufacture of medical devices, impact on the climate can be greatly decreased by redesigning products to be less carbon-intensive. Products could become smaller and carbon-negative materials could be more widely used in their design.

When it comes to pollution, the pharma industry needs to focus on industrial and domestic waste created by the production and use of its products. The World Bank ranks air pollution as one of the top 10 global health risks, contributing to approximately seven million deaths each year. Furthermore, it estimates the annual economic cost of air pollution to be \$5.1 trillion.

Water pollution also contributes to major health problems, with plastic contamination in the water supply a serious issue. Research suggests that one in three fish caught for human consumption now contains some form of plastic. Moreover, land pollution can negatively impact agricultural soil quality, which further degrades the food supply chain and, ultimately, quality of life.

Eliminating single-use plastics, a common feature of the products used in hospitals and other healthcare facilities, should be a key focus for the industry. One non-profit organisation for sustainable healthcare, Practice Greenhealth, reports that 25% of waste generated by a hospital is plastic. While 15% of healthcare waste is classified as hazardous, there is scope to reduce waste in the remaining 85%, in which packaging materials are a significant component.

70%
Pharma not doing enough.

The social challenge

Social responsibility is embodied in the way an organisation directly influences the lives of people, be they workers, customers, suppliers or local communities. It is, therefore, a complex area encompassing aspects of human rights, diversity and inclusion, health and safety, and community impact. The key risk to be mitigated is one of reputation, as failure to maintain high standards in the treatment of people and communities brings negative news headlines, a hit to profitability, and potential penalties from regulatory bodies.

In GlobalData's poll of industry professionals, health and safety was identified as the most pressing social issue facing pharma by close to half of 133 respondents (49%), followed by human rights (26%).

With regards to health and safety, it is the fundamental duty of any organisation to protect employees, customers, and suppliers from physical and mental harm. There are many steps that can be taken to improve health and safety within companies, including the creation of clear policies and the appointment of health and safety officers to promote them. Externally, businesses can improve their responses to customer complaints to mitigate customer health and safety issues before they escalate.

In terms of product processes, adherence to the Good Manufacturing Process (GMP) can help to ensure that drugs and medical devices are produced in accordance with the highest quality standards. This quality commitment not only minimises risks to customers, but also ensures that employees are safe during the manufacturing stage.

When it comes to human rights, it is very widely accepted that they are a fundamental right for all people. Recently, a swathe of local and global regulations have been put in place to ensure that people around the world can enjoy the rights to which they are entitled. Nevertheless, the United Nations (UN) estimates that in 2018 some 40 million people were subject to modern forms of slavery through forced labour and forced marriages.

Other violations are, unfortunately, common. Among them are child labour, the displacement of indigenous people, breaches of personal data, low wages, lack of citizenship rights, and job insecurity. The UN also considers healthcare a fundamental human right, though in many parts of the world access to clean and sufficient water, along with other factors such as limited access to advanced healthcare and cutting-edge pharmaceuticals, means many communities are under served.

Pharmaceutical companies can play a key role in addressing this. The Covid-19 pandemic has highlighted the gaps in providing universal access to vaccines and other tools to combat the spread of infection. During the pandemic, many developing countries have been unable to develop vaccines of their own, instead relying on supplies from the more developed world, where nations have prioritised their own populations.

There have also been calls for companies to open up the intellectual property behind their vaccines, enabling developing countries to manufacture their own supplies. This would in turn ease the burden on global supply chains. However, the European Union (EU) blocked such plans, fearing it would eliminate the incentives for large pharma companies to develop vaccines in the future.

On their own, however, pharma companies can do a lot in specific communities to improve healthcare, and the number of community outreach programmes is growing rapidly. The effects are tangible in individual communities, though there is scope for the industry to spread the net wider and reach more people in need.

Data privacy is another key aspect of healthcare's social challenge, particularly as electronic health records and other digital health tools become the norm. These tools bring risks associated with sharing patient data among companies, healthcare providers, and other parties. The mitigating factor here is the implementation of cutting-edge firewalls and cybersecurity measures, as part of compliance with international regulations.

49%
health and safety.



The creation of high-quality pharma products minimises risks to both patients and employees.

In 2018, the EU brought in the General Data Protection Regulation (GDPR) to protect European citizens' data privacy rights and punish non-compliance with fines of up to €20m, or 4% of the company's annual global turnover, whichever is greater.

More specific to the pharma industry in the area of social responsibility is the perceived bias in clinical studies. There has been a strong drive towards equality for women and minorities in all aspects of life, and diversity is the buzzword of the 21st century. In drug trials, however, efforts to increase diversity are lagging behind.

Innovation is the driving force behind the pharma industry, but first-in-class medicines are still too often brought to market based on data from majority white, male patients. This is problematic for a multitude of reasons, but becomes more of a stumbling block as the industry moves towards personalised medicine, with therapies tailored to a patient's specific genetic makeup. Pharma companies should strive to achieve a better understanding of different populations' biological differences through increasing diversity in clinical trials.

Governance and transparency

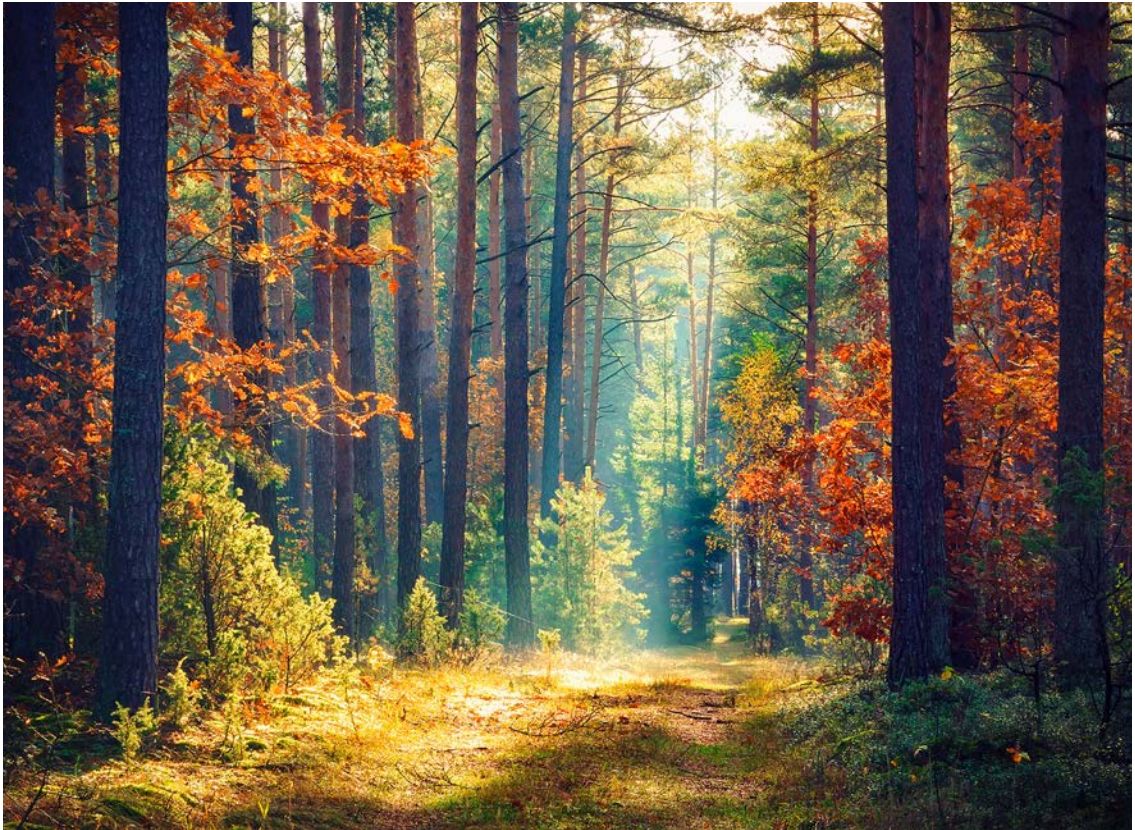
The success of a company's environmental and social initiatives also depends, in part, on the final pillar of ESG: governance. This concerns how companies use internal policies and controls to inform business decisions, comply with the law, and meet obligations to stakeholders.

Governance failures can include aggressive tax avoidance, corruption, excessive executive pay, or intensive lobbying – all of which can cause significant reputational harm and loss of trust. In essence, governance concerns an organisation's ability to act in a compliant and ethical way towards employees, customers and all other stakeholders. This is of paramount importance in the highly regulated pharmaceutical and medical devices sectors.

In the GlobalData survey, 39% of 113 respondents viewed corruption and bribery as the most pressing governance issue in the industry. This was followed by ethics (28%).

The pharmaceutical industry has a rich history of governance problems, including fraud, price-fixing, kickbacks, and the unlawful promotion of drugs. Nevertheless, the industry is making great efforts to improve its performance against the governance metric. Recent data from Public Citizen shows a significant drop in the number of industry settlements from litigation in the last few years, and the value of financial penalties has fallen considerably since its peak in 2012.

Underpinning this improvement is a growing focus on ethics as a core element of strategy, along with the quantitative results demanded by shareholders. There is growing recognition that profitability can be maintained without sacrificing business integrity or ethical practices. Indeed, ethical conduct can result in many positive business impacts, not least the likelihood that a business will be better able to attract and retain top talent.



Environmental issues are usually viewed as the most important sustainability area for the pharma industry.



Packaging companies will play a vital role in reducing waste and improving product safety.

EVOLVING A SUSTAINABLE SUPPLY CHAIN

Confronting the environmental impact of the pharmaceutical supply chain is a key part of the industry's ESG roadmap. As supply chain companies join forces to reduce GHG emissions and implement circular economy principles, net zero pharma products are becoming a reality.

Supply chain challenges and solutions

In every aspect of ESG, the supply chain is a critical focus. Streamlined supply chains can help the pharma industry to reduce emissions, whether through the adoption of electric vehicles for transport and logistics, or through the introduction of energy-efficient production processes.

In terms of waste, packaging companies will play a vital role through the wider use of recyclable materials and the reduction of plastic. In addition, a focus on product safety will contribute to the health and safety aspect of the social pillar of ESG.

There are, however, many risks to take into account. For instance, the shift from therapeutic proteins to more complex biologics such as cell and gene therapies requires a change in manufacturing from reusable stainless-steel fermenters and bioreactors to single-use plastic ones. Furthermore, the offshoring of more small molecule manufacturing to India, China and other emerging markets, where environmental regulations are less strict, could compromise progress towards better environmental stewardship.

Behind all these trends lies the issue of the ageing population and the increase in chronic diseases. As a result, demand for pharma products will only rise, putting greater pressure on manufacturing processes and supply chains. While this has not dampened pharma's desire to be more environmentally conscious – indeed, companies

such as GSK and AstraZeneca have committed to a zero-carbon goal by 2025 – it will make such efforts harder.

There is a strong indication that companies' individual efforts will not be enough to bring the necessary efficiencies and protections across the global supply chain. This is why initiatives such as Alliance to Zero will be so important for the industry's future.

Alliance to Zero

According to a Medical Device Network report on the 26th UN Climate Change Conference of the Parties (COP26), if the health sector were a country it would be the fifth largest producer of carbon emissions in the world. The same report notes that 71% of healthcare emissions are linked to supply chain issues – the production and transportation of disposable drugs, chemical agents and medical devices.

Alliance to Zero is a non-profit membership association for pharma and biotech supply chain companies that aims to facilitate the transition of the pharma sector to compliance with net zero emissions, as outlined in the Paris Climate Agreement.

2030
Net zero

Established as a working group with commonly shared goals, the initiative will collaborate with academia and non-profit organisations as well as project sponsors. It will connect and coordinate suppliers, pharma companies, manufacturers and service providers along the supply chain of pharmaceutical products.



Alliance to Zero aims to accelerate the transition of pharmaceutical products to net zero emissions, in line with the Paris Climate Agreement..

Alliance to Zero has already begun to develop a roadmap describing what a net zero emission concept for pharmaceutical manufacturing and supply chain might look like. The Alliance is also outlining the steps necessary to achieve it. This foundational work includes agreement on harmonised language and principles for the assessment and control of the total emission footprint for final pharmaceutical products, as well as company-specific responsibilities.

The initiative's goals are threefold. By 2023, Alliance to Zero aims to have raised awareness of its mission and created a strong network within the industry. Specific programmes will be in place to reduce and offset GHG emissions, including waste reduction in the production of member companies' products, which represent the entire supply chain.

By 2026, the aim is to create collaboratively developed business models based on GHG emissions reduction and Circular Economy principles. It further aims to establish transparent key performance indicators (KPIs) for comparing GHG emissions reduction across the industry, and to create a net zero product offering within the Alliance.

By 2030, the operations of the companies in the alliance will be net zero or show significant GHG emissions reduction. Furthermore, it hopes to have enabled the launch of net zero pharmaceutical products in regulated markets.

COMPANY FOCUS: DATWYLER

A founding member of Alliance to Zero, Datwyler is a leading provider of high-quality, system-critical elastomer components used within the packaging of vaccines or parenteral drugs. With more than 20 operating companies, sales in over 100 countries and more than 7,000 employees, Datwyler, headquartered in Switzerland, generates annual sales of more than CHF1bn (US\$1.08). It is also a company for which sustainability is a strategic priority.

"The focus has been increasingly on CO₂ emissions for some years now. The consequences of climate change, which are visible to everyone, show how necessary this is," says Paul Halg, Chairman of the Board of Datwyler. "The issue is also critical to our stakeholders, customers, investors, and employees, who all want to do their part. Datwyler is determined to make at least the required contribution to the Paris climate agreement."

"Sustainability is nothing new for Datwyler," adds the company's CEO Dirk Lambrecht. Datwyler has been a member of the UN Global Compact since 2009 and has produced a sustainability report following GRI guidelines every year since.

"It is a matter of always acting with foresight and finding a balance between the economic interests of investors, who now demand sustainability, and social as well as environmental aspects," he says. "Sustainability is in Datwyler's genes, and I'm very glad that the topic is now receiving greater attention, because it allows us to put our strengths to good use."

Putting plans into action: Schattdorf

For Datwyler, sustainability means action as well as words. Firstly, the company's Schattdorf plant has put into place many carbon-neutral production methods. From 2008, the site sourced process and heat energy from a nearby wood-fired heating plant, thereby reducing CO₂ emissions by 1,300 tons per year. In 2012, Schattdorf switched completely to electricity from hydropower, which has since further reduced annual CO₂ emissions by 2,300 tons per year.

The site has completely dispensed with fossil fuels. Furthermore, by using groundwater for air conditioning, ventilation and processes, electricity consumption has also been considerably reduced, even despite higher sales.

Ecodesign: DuraCoat™

Datwyler's DuraCoat product for drug cartridges is an innovative aluminium combiseal, designed with a reduced amount of metal. The combiseal combines industry-leading aluminium lamination with a high-quality alloy that reduces the risk of abrasion during production and handling. Going from component feeding, plunger positioning,



Elastomer stoppers seal vials and syringes for parenteral drugs.

combiseal crimping to camera inspection, the components showed improved performance on new and existing production lines, all while containing 15% less aluminium metal.

The Ecodesign principles on which DuraCoat is based aim to reduce environmental impact across all lifecycle stages of a product and are being implemented across Datwyler's entire offering. They include development of environmentally friendly elastomer compounds that save on materials, reduce process-related waste, and use reusable or recyclable packaging and boxes.

A sustainable future: Pune solar power plant

Datwyler's production plant in Pune, Kesurdi, India, had previously depended on electricity purchased from the state-owned company which was primarily produced from fossil fuels. To remedy this, the company installed a rooftop solar power plant in 2021 to create a more sustainable energy supply, decentralise electricity production, and increase viable energy options.

The company signed a contract with Thermax, a local solar power construction company, and will purchase the electricity generated from Thermax's plant, which is estimated to generate up to 2.1GW electricity annually.

Social engagement

As part of a broad-ranging approach to the social pillar, Datwyler has initiated numerous community projects. For example, in Kesurdi, the company has supported the inhabitants of surrounding villages as part of its corporate social responsibility (CSR) programme.

These community projects involve Datwyler employees taking an active role in planning and implementing modernisation measures for local communities. For instance, the local Datwyler cleaning unit

takes care of regular cleaning and maintenance of the new premises and infrastructure.

Datwyler has also worked with NGO Planet Water to improve local infrastructure in India, which includes installing and maintaining a number of water treatment systems, as well as offering training and education programmes within six different communities to highlight the issues of water conservation and personal hygiene.

In 2021, Datwyler successfully installed six water filtration systems, 36 hand washing points, and six surface disinfection systems, the impact of which provided clean, safe drinking water to over 10,800 people.

The company has also played a vital role during the pandemic. Not only has its Indian manufacturing facility supported leading pharma companies by producing stoppers, plungers and other solutions for the supply of Covid-19 vaccines, it has also supported the residents of the surrounding villages. For instance, it provided 45 days of food for a Covid-19 treatment hospital and delivered 200 meals a day for underprivileged people.

KEY FUTURE TARGETS:

- **Reduce waste** volume relative to revenue units of products produced by 3% per year
- **Reduce water** consumption relative to revenue units of products produced by 3% per year
- **Reduce electricity** consumption relative to revenue units of products produced by 3% per year
- **Reduce fuel** consumption relative to revenue units of products produced by 6% per year
- **Become carbon neutral** by 2030

Climate-neutral operations 2030
Science Based Targets

Eco-design
Lifecycle thinking, sustainable products

Resource-friendly production
Waste, Water, Materials

Sustainable Procurement
ESG compliant processes, sustainable solutions through supplier base

Reduce footprint

Employer of choice
Employee commitment & satisfaction, employer branding, diversity & inclusion

Value-driven engagement with customers
Interactions, collaboration, positive social impact

Safe and healthy workforce

Engagement for sustainability
Volunteering for activities for company, customers, society

Deliver more value

Transparency
Reporting, standards, ratings

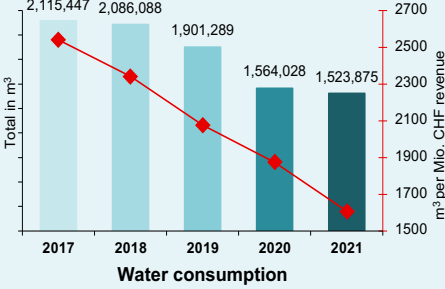
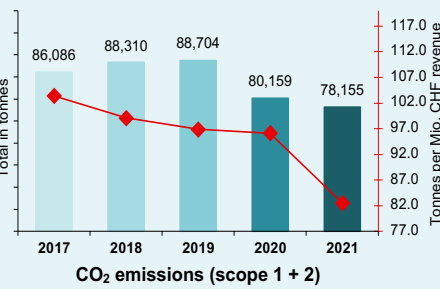
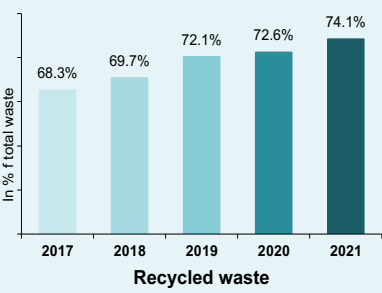
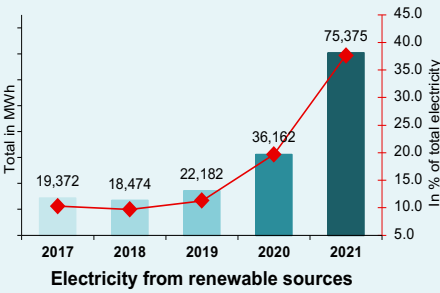
Compliance and Ethics
Human rights, Code of Conduct, policies, proactive chemical compliance

Diversity of the BoD and Executive Management

Commitment
Budget & resources, principles, memberships, remuneration

Be responsible

SUSTAINABILITY HIGHLIGHTS



Electricity from renewable sources more than doubled to **38%**

Reduction of CO2-emissions per revenue unit by **8.1%** for the fourth consecutive time

Recycling rate further improved to **74.1%** for the fifth consecutive time

Reduction of water consumption per revenue unit by **12.7%** for the fifth consecutive time

Datwyler Group | Annual Results 2021 | 18 February 2022 | © DATWYLER | www.datwyler.com

A comprehensive approach

Along with its commitment to GHG emissions reduction through its Alliance to Zero membership, Datwyler takes a very comprehensive approach to ESG and resource consumption. Datwyler has identified twelve key sustainability focus areas, along with important objectives and quantifiable figures for effective monitoring.

Already, significant progress has been made. In 2021, its consumption of electricity from renewable sources more than doubled from the previous year, to 38% of total consumption.

Between 2017 and 2021, water consumption fell by 28% and CO2 emissions per revenue unit dropped by 8.1% for the fourth time in a row. Furthermore, 74.1% of waste generated by the company was recycled in 2021.

Datwyler is also supporting key research on clinical trial bias in order to ensure that diversity and inclusion are key factors in the testing of future drugs. Similarly, its talent strategy aims to create a more diverse workforce, to both attract the best international talent and fulfil its social responsibility goals.

The code of conduct enshrines the principle of zero tolerance for any discrimination, humiliation, oppression, harassment, or insults relating to a person's gender, origins, nationality, culture, colour, or religion. In 2020, the company issued a formal Diversity, Equity, and Inclusion (DEI) policy.

Another key catalyst for change that year was the formation of a new talent development team. Set up as a centre of excellence, it allows

leaders with different competencies to work together towards their common goals – creating transparency and expertise, and making employees happy in the workplace. .

"Sustainability is part of the business model and is no longer a matter for discussion," says Hälgi. "No one would even think of saying: Due to Covid, quality is no longer so important. We also want to achieve measurability and standards in sustainability, just as we do in quality management. At some point, that will be a matter of course."

"Sustainability is part of our corporate culture," adds Lambrecht. "We do not want to and cannot interrupt our sustainability process because of a temporary phenomenon like the pandemic, as bad as it has been for people all over the world. Such an interruption would severely impact our credibility."

Conclusion

For pharma companies and their supply chain partners, ESG brings many pressing challenges, but also many opportunities to enhance profitability, reputation and long-term sustainability.

As companies strive to set ambitious ESG targets, particularly in the environmental sphere, it is becoming clear that individual actions will not be enough to deliver the full benefits of a coordinated and comprehensive ESG strategy across the industry.

Increasingly, collaborative efforts across the entire supply chain, such as Alliance to Zero, will be the catalyst for rapid progress on all three pillars of ESG.

Datwyler Group

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