



## Enabling sustainable world through purpose-driven products and operations

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**The past few years have reflected the importance of human health and its synergistic relationship with our environment. While we have made giant technological advancements across sectors, it's equally important to transform our economies and societies to enable a greener, healthier and cleaner environment.**

Sustainable Development Goals (SDGs) adopted by the United Nation member states are an urgent call for action to develop strategies to improve health, education, and socio-economic conditions with underlying importance on tackling climate change.

We are a part of the 'decade of action', and the steps we take today will have long-lasting effects on future generations. Businesses and corporates worldwide have a significant role to play here and act as catalysts for building and maintaining a sustainable environment.

At Thermo Fisher Scientific, we have been on this journey early on with our mission which is to enable our customers to make the world healthier, cleaner and safer. As the world leader in serving science, we understand the importance of our role

in helping our customers and inspiring the next generation of scientists to make the world a better place.

Our strategy encompasses environmental stewardship and technologies that we introduce to empower customers to attain their SDG goals, while making progressive strides in our efforts towards a sustainable world.

### **Positive disruptions across the business landscape**

To align our strategy with our commitment, we have adopted initiatives across multiple business areas.

Net Zero emissions are an important aspect of enhancing the environment and have garnered momentum worldwide with appropriate financial flows, the development of technology, and an enhanced capacity-building framework.

India too has set an ambitious target of achieving net-zero carbon emissions by 2070. As an effort in this direction, government entities have laid down stringent controls for continuous ambient air monitoring, and continuous emission monitoring, urging the use of innovative solutions that ensure accurate measurement on a real-time basis in compliance with regulatory standards.

We are working towards reducing the impact of harmful gases which are a by-product of industrial processes with pioneering solutions such as the Dilution Flue Gas Desulphurization Continuous Emission Monitoring Systems (FGD CEMS), designed to effectively monitor the pre and post-process emission of SO<sub>2</sub> levels from thermal power plants.

To further control the SO<sub>2</sub> levels, vehicular emissions were monitored and in 2020, the Govt. of India set directives to upgrade Bharat Stage IV (BS-IV) fuel to BS-VI with a sulphur content change from 50 ppm to less than 10 ppm. As a result, refineries had to swiftly change their processes incorporating advanced monitoring systems for accurate control and reporting of sulphur content at every stage of the process. Our SOLA-II system, which enables for trace level measurements, is facilitating refineries to achieve their targets.

### **Mitigating contagious diseases**

According to the WHO, roughly 24% of all global deaths are linked to environmental factors and some of the world's most contagious diseases are spread through in-air transmissions. Along with our industry-leading efforts in testing and vaccine development solutions during the COVID-19 pandemic, we introduced the AerosolSense Sampler, to mitigate air-borne transmissions as a part of our overall strategy. The device aids in environmental surveillance of COVID-19 in public and closed-door places to maintain business and operational continuity.

### **Our efforts toward clean energy transition**

A transition to clean energy is a significant economic opportunity for India. The recent emphasis on renewable batteries and green hydrogen offers an opportunity for India to become a global leader in these segments.

Thermo Fisher's wide range of analytical instrumentation are effectively being deployed for the evaluation of batteries and their components.

The Government's National Hydrogen Mission is aimed at making India a hub for the production and export of green hydrogen and making the country energy independent by 2047. Considering its wide range of applications from industrial, transport, and power to residential, monitoring the purity of green hydrogen is crucial. Thermo Fisher's sophisticated mass spectrometers provide real-time, accurate analysis in seconds with good linearity.

### **Enabling Clean Water**

According to the United Nations, worldwide, one in three people don't have access to safe drinking water and the statistics are no better for India with less than 50% of the population having access to safely managed drinking water. Chemical

contamination and water-borne diseases are major causes of concern, especially in areas that lack planning for water safety.

Disinfection of drinking water through ozonation has come under the radar in the past few years, as ozone reacts with even trace amounts of bromine in water to form bromate, a potential human carcinogen. The Bureau of Indian Standards (BIS) recognizes Ion Chromatography for the estimation of bromate from packaged drinking water.

As an industry leader in the Ion Chromatography market, our systems are extensively applied to evaluate toxicity in water samples through routine testing for ions, perchlorate, and metal speciation to determine organic and inorganic ion species.

### **Building environmental health consciousness across teams**

In 2021, we announced our commitment to becoming net-zero by 2050 and enhanced strategic investments to support this roadmap. A focus on sustainability is high on our list of priorities, which is why we continue to find ways of making environmentally conscious choices. Our initiatives are aimed at reducing our environmental footprint by minimizing the use of hazardous chemicals, waste reduction in processes, and increasing the energy efficiency of our products.

We are proud that our equipment and consumables meet a range of environmental metrics and in-turn help our customers advance sustainability in their labs. For example, Thermo Fisher's freezers were among the first to be ENERGY STAR certified.

Further, we focus on a packaging design by transitioning to readily recyclable shipping materials while keeping the product integrity intact.

Thermo Fisher Scientific is working towards making the environment cleaner, greener, and sustainable with varied initiatives. We are committed to innovating to serve our customers while actively minimizing our own environmental footprint.

**Amit Chopra, Managing Director- India and South Asia Thermo Fisher Scientific**