

# MESSAGE **1**

## Becoming a Net-positive Company of Excellence that Underpins Sustainable Societies

### Utilizing the Power of Data and Technology to Build Prosperous Societies in Harmony with Nature

#### Delivering Clean Water and a Clean Environment

Since its formation, the Water & Environment Business Unit has engaged in a wide variety of utilities businesses based on the vision of delivering clean water and a clean environment. In the meantime, however, the COVID-19 pandemic has had a major impact on the business environment in which we operate, bringing changes to the values of individuals and of society as a whole. In particular, there has been an acceleration globally in digital transformation (DX), the transformation of society and business by digital technology. In such a rapidly changing market, it is becoming more important than ever to keep pace with changes in the issues and needs of customers, and to be



**Hideshi Nakatsu**

Vice President and Executive Officer,  
CEO of Water & Environment Business Unit, Hitachi, Ltd.

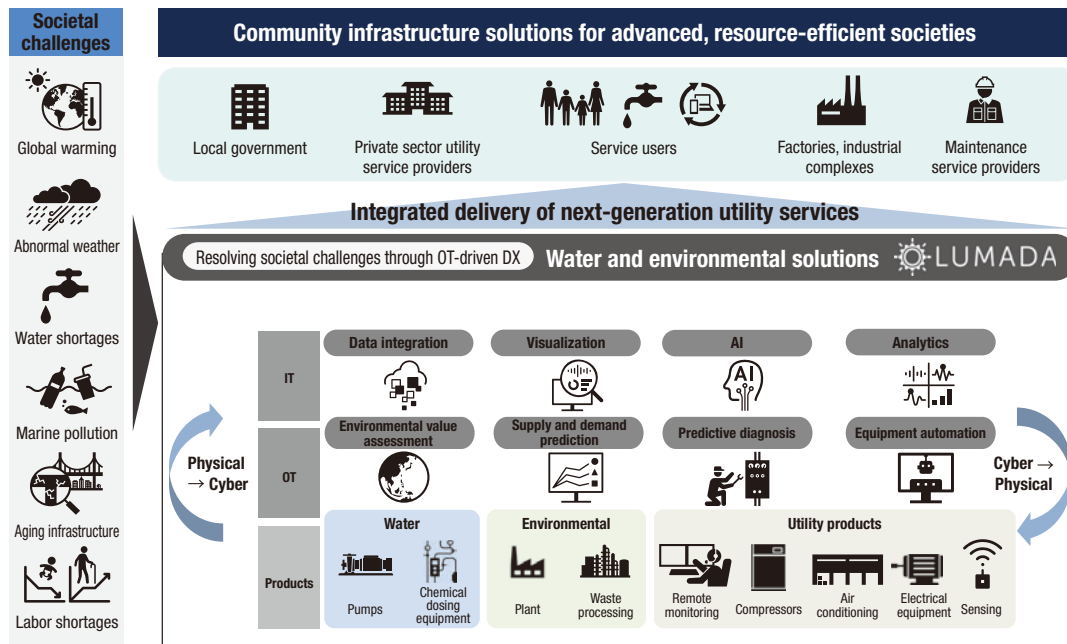
able to overcome challenges across the entire spectrum of products, operational technology (OT), and IT.

At Hitachi's Water & Environment Business Unit, we are drawing on our OT domain knowledge of environmental and clean technologies to engage in collaborative creation with business partners and customers from industry and the public sector, thereby delivering value across a broad range of applications by leveraging our combined strengths in process engineering and digital technology.

#### Digital Transformation for Supplying Clean Water

The water sector has been paying greater attention to information and communication technology (ICT) over recent years as a means of delivering safe and reliable water supplies in a sustainable manner. At the Water & Environment Business Unit, we are combining IT with the experience and expertise we have built up over many years to step up our deployment of digital solutions.

One example is an operation and maintenance (O&M) support digital solution at water and sewage utilities that enables this work to be carried out in a more transparent and efficient manner with a reduced workforce while also passing on the skills of highly experienced staff. We also offer solutions for dealing with the localized heavy rainfall events that have become more common over recent years, utilizing artificial intelligence (AI) for tasks such as the diagnosis of equipment faults, water quality prediction, and operational support. In efforts extending from building local community infrastructure to creating a sustainable society, we are pursuing the integrated delivery of utilities by sharing data with other forms of social infrastructure



OT: operational technology AI: artificial intelligence

### From Building Local Community Infrastructure to a Sustainable Society

(including energy, roads, rivers, and civil defense), not only water supply and sewage information.

### Work toward a Clean Environment

Seeking to realize a decarbonized society, resource-efficient society, and a society that is harmonized with nature, Hitachi has published its long-term environmental targets in Hitachi Environmental Innovation 2050.

Acknowledging the environmental issues of recent years, the Water & Environment Business Unit has been accelerating its efforts to achieve carbon neutrality through measures that include use of hydrogen and renewable energy. One example is our collaboration with business partners to produce hydrogen from excess renewable electricity and to develop a hybrid generation system that can run on a mixture of hydrogen and traditional fuels. In Tomiya City, Miyagi Prefecture, we are partnering with Miyagi Consumer's Co-operative Society (Sendai City), Marubeni Corporation, and others to trial a diesel-engine generator fueled by a mix of hydrogen and waste food oil.

Along with building a supply chain for the use of hydrogen by consumers and industry, we are also participating in a demonstration project in Namie, Fukushima Prefecture that involves using advanced digital technologies to balance

supply and demand for electric power. Through these efforts, we are helping to bring about a carbon-neutral society while also boosting local industry through attracting plants utilizing hydrogen, which does not emit any carbon dioxide (CO<sub>2</sub>) when used as a fuel.

### Seeking to Realize a Sustainable Society

If we are to make the transition to a sustainable society, it will be essential to engage in collaborative creation with a wide range of stakeholders, encompassing vendors, financial institutions, and green certification agencies as well as customers and other business partners. By exchanging the necessary information and data between these interrelated stakeholders, Hitachi is also active in areas such as building frameworks for resource recycling and transforming sustainability certification into value. Through these efforts, we are pursuing not only the society-wide optimization of supply chains, but also our goal of becoming a net-positive company of excellence that creates environmental value and underpins a sustainable society, establishing and fostering new ecosystems by overcoming the challenges posed by *kiwa* (the gaps between different organizations) through the deployment of total seamless solutions that utilize digital technologies across a wide range of different fields.