MESSAGE 2

Enhancing Economic Value for Customers While Reducing their Environmental Impact

Overcoming Management Challenges through Collaborative Creation and Digital Technology

Supporting Sustainable Progress in Industry

The management perspectives of customers have undergone considerable change over recent times in terms of how they think about the environment, resilience, and safety and security. With institutional investors increasingly treating climate change as an investment risk and calling for major corporations to disclose their carbon footprints, companies are responding to investor expectations for the adoption of

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decarbonization strategies and the disclosure of information to the extent that their decarbonization measures can sometimes serve as a means of differentiating themselves from competitors.

Meanwhile, an increasing number of companies have set their own science-based targets (SBTs) for the reduction of greenhouse gas emissions in line with what is needed to meet the goals of the Paris Agreement, with target dates five to ten years into the future. The number of Japanese companies that have acquired SBT certification reached 247 as of September 1, 2022 (the third highest internationally), with a further 56 companies having committed to certification.

Unfortunately, major societal challenges that are too large for any one company to resolve continue to make their presence felt, with the issues to be addressed being both complex and interrelated. The environment and COVID-19 are two prominent examples.

Hitachi and the Connective Industries sector are taking up the challenge of creating sustainable societies while delivering personal wellbeing by utilizing data and technology, working through the Social Innovation Business to resolve these societal challenges with a combination of the latest IT, operational technology (OT), and products.

Here at the Industrial Digital Business Unit, we are leveraging digital technology to help reduce the environmental impact of our business customers while also delivering economic value in an environment where management challenges are growing increasingly complex.
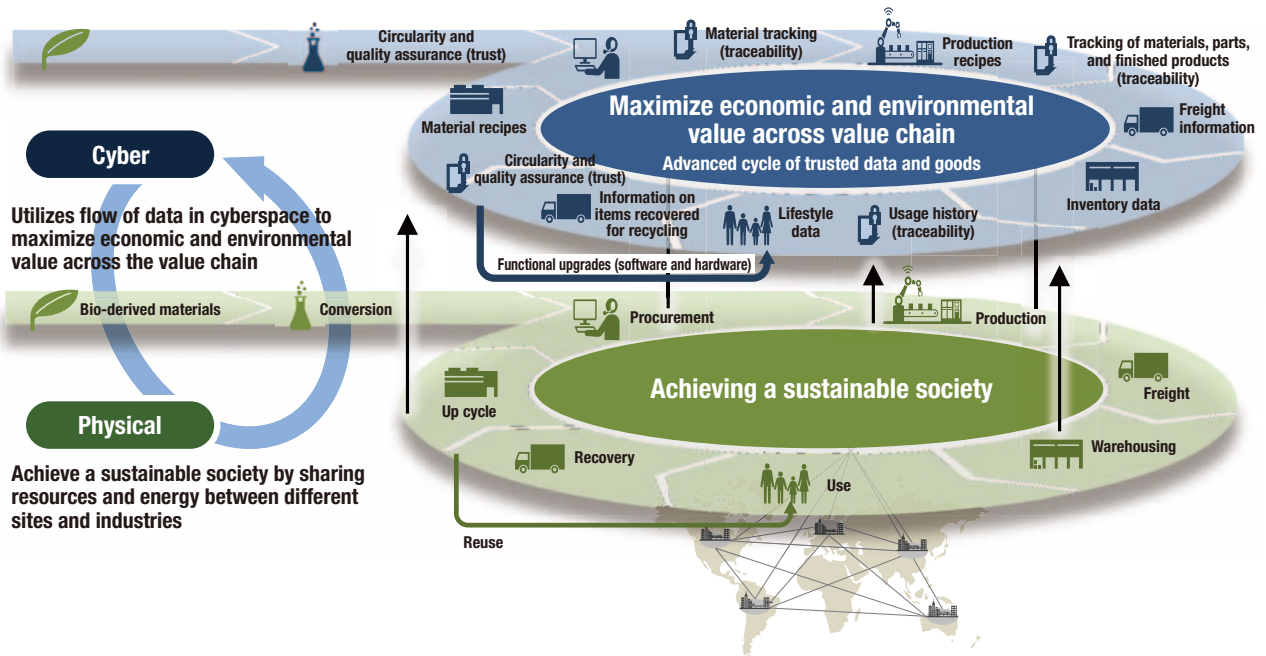
Sustainable Society with Optimal Combination of Economic and Environmental Value Made Possible by Cyber-physical Systems

Facilitating DX in Global Industry and Logistics

As the environment in which business operates changes in complex and interrelated ways, as exemplified by climate change and COVID-19, societal challenges extend across different businesses and sectors. These challenges are more than a single company, organization, or sector can resolve. While this calls for total solutions that span multiple companies, organizations, and sectors, the "*kiwa*" (gap) that separate these companies and organizations from one another pose an obstacle when it comes to putting these solutions into practice.

Our aim at Hitachi is to maximize value for customers by engaging with them in collaborative creation to transcend these many gaps. The solutions we develop are based on the concept of total seamless solutions that, in addressing the problems posed by these gaps, use digital technology to provide seamless integration both vertically, from the

workplace to management, and horizontally, across the companies and organizations that make up the supply chain.

What makes this possible are Hitachi's cyber-physical systems (CPSs) that leverage our strengths in IT, OT, and products. These involve the rapid and precise collection and modeling of large quantities of diverse forms of data across different companies in physical space, analysis and simulation in cyberspace to determine optimal solutions and support management decision-making, and the provision of feedback to physical space to optimize real-world operations.

One example from the field of regenerative medicine involves dynamic interoperation between production progress and treatment planning that is achieved by means of a platform for managing the entire value chain, bringing together the products and OT of cell processing centers (CPCs) that are essential to production.

Similarly, in the beverage industry, Hitachi has implemented Internet of Things (IoT) platforms for system-wide optimization that also facilitate working practice reforms and the pursuit of safety and security. This is done by

collecting, integrating, and consolidating large amounts of data in a variety of formats from multiple production lines to enable traceability and to visualize factory data.

Meanwhile, COVID-19 along with heightened geopolitical risk and a greater threat of natural disaster have increased operational uncertainties and this calls for flexible management capable of readily adapting to change. Hitachi is utilizing CPSs to equip value chains with dynamic capabilities that allow for a flexible response to a variety of different drivers of change.

We are also seeking to contribute to the global market and, through Hitachi Industrial Holdings Americas, Inc., we are accelerating the deployment of total seamless solutions in our North American operations that are based around Hitachi group companies, JR Automation and Flexware Innovation, Inc.

Contributing to the Environment through Digital Technology

In pursuit of growth in which "green," "digital," and "innovations" play a key role, Hitachi is contributing to the achievement of wellbeing, enabling people to continue enjoying a good life while also respecting planetary boundaries to keep the environment safe in a way that allows for the continued existence of humanity.

At the Industrial Digital Business Unit, we are developing the technologies that CPSs require and are implementing and testing these within Hitachi so that customers will be able to use them with confidence. In doing so, we are helping to create a sustainable society that recycles resources and functions, a society in which people can pursue a wide variety of lifestyles, while at the same time taking a management perspective toward addressing customers' environment, resilience, and safety and security issues, a form of value delivery that becomes possible only when we start bridging gaps.