

Digital Transformation Initiatives

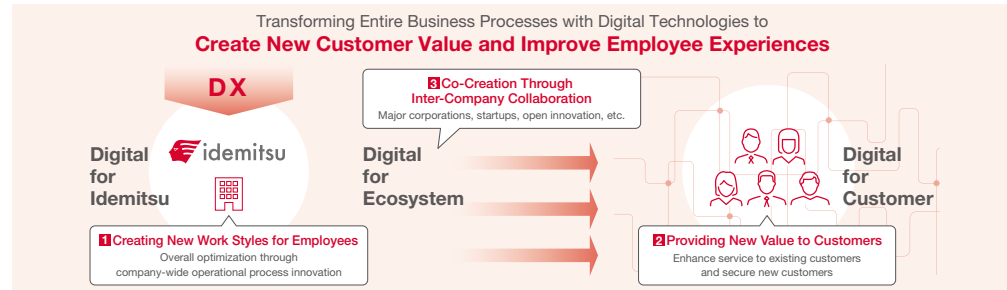
Transforming Entire Business Processes with Digital Technologies to Create New Customer Value and Improve Employee Experiences

The business environment of the energy industry is forecast to undergo major changes going forward. For Idemitsu to continue to grow, proactively applying digital transformation (DX) to all business processes, enhancing operational sophistication, and continuously providing services that meet new needs will be essential.

Based on this understanding, we have made the acceleration of digital innovations a priority topic of its Medium-term Management Plan and is advancing initiatives in the three areas listed below.

Positioning 2020 as a year for reinforcing our foundations, we established the Digital Innovation Department in January, have implemented multiple on-site pilot tests with an eye to formulating company-wide digital strategy, and are advancing internal awareness raising aimed at developing our corporate culture.

Idemitsu's DX Initiatives



1 Creating New Work Styles for Employees (Digital for Idemitsu)

In order to advance company-wide operational process innovation, in April 2020 we began on-site pilot tests that will help generate synergies between business departments and realize overall optimization. After confirming the results of these efforts, we began steadily moving forward with small starts and other steps.

In addition, following the April 2020 declaration of a state of emergency in Japan, more than 90% of our employees (excluding manufacturing divisions) moved to a work-from-home setup. While circumstances in our business environment were extremely harsh, in terms of DX, the resulting advances in the use of online meetings, paperless technologies, and digital approval systems have helped foster an awareness in employees that it is possible to significantly change existing modes of working. We held online seminars for employees aimed at developing corporate culture in June and October, explaining the need and goals for DX at the Company, providing examples from within the company, and holding panel discussions with outside experts. By thus using a wide range of content, we are advancing initiatives aimed at company-wide innovation.

Enhancing the Sophistication of Refinery Maintenance Operations and Reinforcing Safety through DX

In the petroleum business, one of our core businesses, we have built robust production sites and supply chains. However, in light of forecast declines in oil demand, in order to win out over the competition going forward, we must further enhance productivity and efficiency. At the same time, we face numerous issues, such as rising costs related to the aging and maintenance of facilities in Japan and the retirement of veteran technicians who have long been vital to production site operations. Digital technologies offer useful tools to address such issues. We have made innovating maintenance operations a DX project, and, using different, new approaches (Agile and Design thinking*), have revised existing operational methods while verifying the effects of changes. As a result, we were able to identify opportunities for reinforcing competitiveness by reducing maintenance costs and improving operational efficiency. Accordingly, we have set up a framework for promoting DX within refineries, made a small start in introducing ongoing operational process improvement, and begun considerations aimed at expanding the scope of such innovations. We aim to apply the insights gleaned from these pilot tests at other plants to generate synergies across our businesses.



* Agile: A method of lean, fast, and adaptive software development

Design thinking: A method of thinking about the design of products and services by designating goals from the perspective of customer value

2 Providing New Value to Customers (Digital for Customer)

New initiatives that make maximum use of our assets are essential to creating new customer value in existing businesses. For example, rather than passively waiting for customers to come to refuel at our service stations, we must proactively put out information and transform our service stations to offer new experiences. In order to provide optimized service with optimal timing to meet diverse customer needs, we will leverage accumulated data to realize individually personalized service.

Digital Marketing Leveraging our Service Station Customer Base

We are advancing initiatives to create new customer value through DX leveraging our network of approximately 6,400 service stations nationwide.

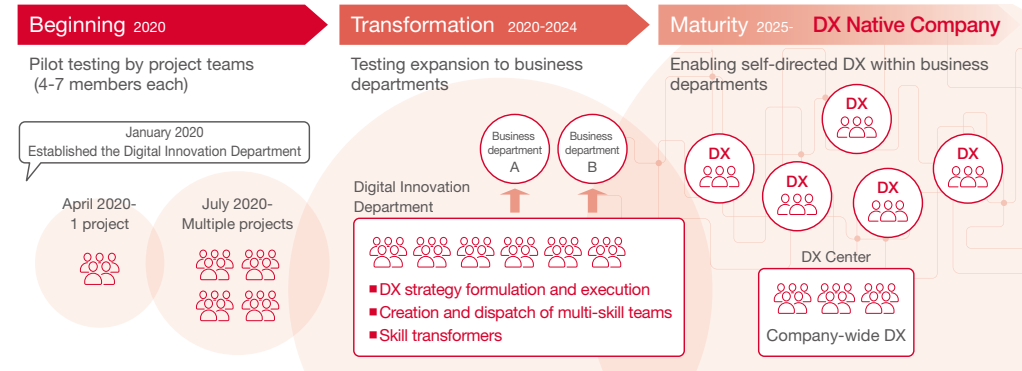
One such initiative is the use of PIT in plus, through which customers can reserve car services at a service station in advance online. This allows us to understand the services required by customers ahead of time and reduce waiting time, thereby both improving the work efficiency of service station staff and enhancing customer satisfaction. In particular, during the COVID-19 pandemic, customers want more than ever to avoid waiting, which has helped drive an increase in reservations. As of August 2020, we have rolled out this system at 1,566 service stations (up 430 service stations from March 31).

We are also advancing pilot testing of a variety of other new services, such as a carwash reservation app, a coin laundromat business, and compact EV sharing. In doing so, we are advancing DX to realize service stations that support local living and mobility by, for example, using algorithmic digital technologies and combining new services with existing businesses to provide new solutions.

3 Co-Creation Through Inter-Company Collaboration (Digital for Ecosystem)

Our third category of digital innovation initiatives is creating entirely new businesses that contribute to local communities. This, however, is something that we cannot do alone. We therefore plan to advance initiatives in collaboration with companies that have strengths in a wide range of fields, such as healthcare, housing, food, and education. In 2020, we took part in "SmartCityX", a project focused on designing smart cities through inter-company collaboration.

Idemitsu's DX Roadmap



As a result of the COVID-19 pandemic, the development of a culture of working online has rapidly accelerated, and values are changing significantly across society. To ensure that we can continue to provide irreplaceable value suited to each of our increasingly diverse stakeholders over the long term, every Idemitsu employee will ambitiously strive to advance innovation. DX is the powerful foundation supporting the efforts of the entire company to take on new challenges.

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