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ENEOS Holdings, Inc.
ENEOS Corporation
iXs Co., Ltd.

ENEOS and iXs Begin Joint Study on Maintenance and Inspection Service Business for Plants and Next-generation Energy Facilities Using Robotics

ENEOS Corporation (President: Saito Takeshi; “ENEOS”) and iXs Co., Ltd. (Representatives: Yamasaki Fuminori and Karino Takashi; “iXs”) have begun a joint study on maintenance and inspection service business using robotics^{*1}. In conjunction with this, ENEOS Innovation Partners LLC., a subsidiary of ENEOS Holdings, Inc., has invested in iXs.

In refineries and chemical plants, costs and personnel related to maintenance and inspections are increasing due to deterioration of facilities and installation of new ones. In addition, with the spread of next-generation energy such as renewable energy and hydrogen, maintenance and inspections are expected to increase for the installation of such new facilities. On the other hand, given the ongoing labor shortage, there is growing demand for the adoption of remote systems, automation, and lower costs for maintenance and inspections.

This joint study will look into the following aspects for an advanced maintenance and inspection service using robotics:

1. Remotely/automatically operated robots conduct maintenance and inspection tasks, such as data collection and repairs, without the need for operators to visit sites.
2. AI analysis of collected data to diagnose/predict anomalies. Data is managed on the digital twins^{*2}.

In the study of this service, we will develop hardware and software such as robots specialized in various facility inspections. Also, we will be undertaken together with the development of a platform installed with data analysis and other applications.

This service is scheduled to be gradually adopted at ENEOS’s refinery facilities from fiscal 2023. Furthermore, taking into consideration the trend of the maintenance and inspection market scale, provision of this service to other companies possessing chemical plants, renewable energy facilities, and hydrogen manufacturing facilities will be studied.

One of the ENEOS Group's envisioned goals stated in Long-Term Vision to 2040 is to create value by transforming the current business structure. ENEOS sees the progress of the digital transformation^{*3} and changes in social needs as good opportunities, and is creating new value by developing and implementing innovative businesses. So far, ENEOS has worked on initiatives such as the autonomous operation of refineries using AI systems. ENEOS will continue to collaborate with other companies to create innovative businesses.

Amid environmental changes—such as aging human resources in industrial maintenance and facility deterioration over time—and the pressing issue of responding to the spread of infectious diseases, iXs is promoting digital transformation that uses robots, AI and extended reality (XR) systems, and 3D technologies for social and industrial infrastructure. Through this capital tie-up with ENEOS, iXs aims to promote digital transformation for petrochemical plants and other such facilities.

This initiative is consistent with United Nations Sustainable Development Goals (SDGs) 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

*1 Refers to the technological and academic field related to the design, manufacturing, and control of robots.

*2 Refers to a technology that collects information of a physical space and reproduces it on a computer (virtual space). Using this technology, it is possible to conduct various simulations within the virtual space.

*3 Refers to the value transformation of lifestyles and business styles by overturning and transforming existing business frameworks to make them better through the use of digital technologies.

<For further information>

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