



November 11, 2022

Ono Pharmaceutical Co., Ltd. NS Solutions Corporation

Ono and NS Solutions Jointly Build "OASIS", an Infrastructure for Utilizing Integrated Data

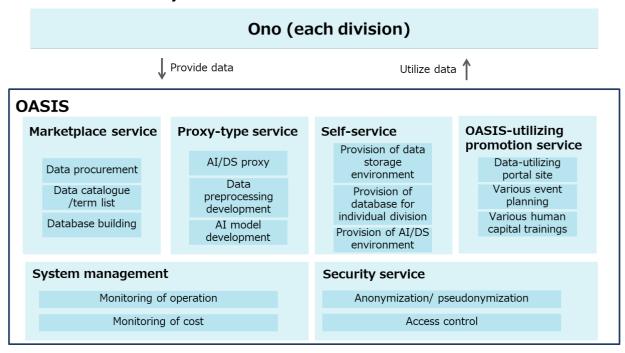
Ono Pharmaceutical Co., Ltd. (Osaka, Japan; President and CEO, Gyo Sagara; "Ono") and NS Solutions Corporation (Tokyo, Japan; Representative Director & President, Hiroyuki Morita; "NSSOL") announced that the companies have jointly built and started to use "OASIS (Ono Advanced Scientific Insight Service)", a data-driven, infrastructure for utilizing integrated data, for Ono to centrally manage and utilize its internal data accumulated by Ono in a company-wide manner.

OASIS is an infrastructure for utilizing integrated data, by which data owned by each division of Ono, and real-world data ("RWD"), etc. can be analyzed on a single platform across the company. The introduction of OASIS will allow the central management of data and help realize a stronger-than-ever data governance system. Further, OASIS has been developed under strict data security guidelines, according to the Revised Act on Protection of Personal Information. As such, Ono has successfully developed an environment where data can be utilized safely by processing personal information into anonymously and/or pseudonymously processed information*1. While protecting personal information, Ono will contribute to the creation of new evidence by performing advanced artificial intelligence (AI) analysis.

Ono has held vast amount of complicated data using different systems so far at each division (such as research, development, marketing, production/CMC, and compliance, safety and quality assurance). By building OASIS, however, Ono has successfully developed a system so that Ono can centrally manage and utilize such enormous amount of data held by each division across the company. In the future, Ono will continuously work to create innovative new drugs more quickly and efficiently through central management and company-wide utilization of non-clinical study (experiment/investigation) data, clinical study data, and safety information, etc. stored at each division of the company, as well as RWD to be obtained in clinical practices. Further, by building OASIS, Ono expects to intensify data governance and security, as well as reduce risks and costs.

NSSOL will plan and facilitate measures to promote the use of OASIS, in line with the cultivation of a culture to encourage DX (digital transformation), including, in particular, bottom-up activities to establish the use of data with Ono, so that the introduction of OASIS will exhibit its effects at an early stage. In promoting these measures, NSSOL will work with Ono to realize PoC (proof of concept), starting from investigation and draft of action plans for data utilization through OASIS, by taking advantage of the data analysis work and technical expertise cultivated through its extensive experience in DataRobot introduction*².

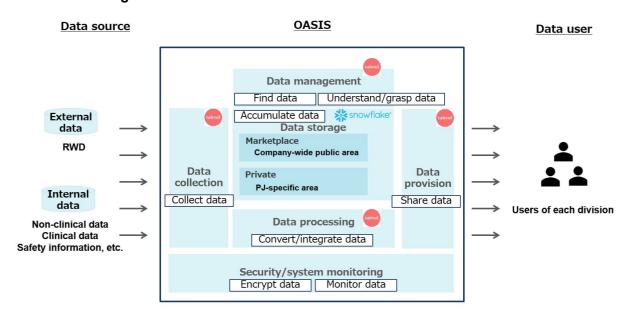
■ Overview of OASIS Project



■ OASIS

OASIS has been developed swiftly through the introduction of DATAOPTERYX*3, an integrated data management platform provided by NSSOL, with the use of Snowflake and Talend, which are provided as SaaS*4. In conjunction with the introduction of OASIS, we have both improved convenience of data usage and reduced security risks by laying down the security guidelines for data governance and personal data, while at the same time developing the organizational system to support them.

■ Data Flow using OASIS



Under the corporate philosophy of "Dedicated to the Fight against Disease and Pain", One has been committed to discovering and developing innovative new drugs by promoting innovations, while aiming to realize corporate transformation through digitalization and IT transformation, starting with the introduction of OASIS. Further, we will continue to implement measures as a company that strongly encourages DX, including activities toward the establishment and promotion of data utilization together with NSSOL, advancing its concept brand, PLANETARY*5, which advances the will of DX to a culture.

NSSOL, under its purpose, "Dream our future, Unleash the possibilities of society, With technology and passion" will contribute to society by realizing a digital manufacturing industry that has corporate culture committed to encouraging ongoing DX.

- *1: Anonymously processed information and pseudonymously processed information (https://www.nssol.nipponsteel.com/future/stories/trends201912-02.html)
- *2: NSSOL, in 2016, became the first domestic agency in Japan for DataRobot, and in 2020, entered into a strategic business alliance agreement with them. NSSOL has track record of supporting data utilization that takes advantage of cooperation with DataRobot, in a wide range of industries, such as the introduction at 14 domestic pharmaceutical companies (including Ono).
- *3: "DATAOPTERYX" has realized, through the integration of Snowflake/Talend products, an environment in which corporate data is collected/accumulated, and then users correctly understand the meaning of the data and securely use it. By this, governance is intensified and prompt companywide data utilization is possible, contributing to data-driven business management of clients.

 Example of introduction (https://www.nssol.nipponsteel.com/press/2022/20220530 110000.html)
- *4: Software as a Service, which is a service that allows, via the Internet, the use of cloud-based software provided by vendors. This reduces the infrastructure-building on the user side to the minimum, making it possible to promptly start use and respond to changes in use status.
- *5: Details of PLANETARY (https://www.nssol.nipponsteel.com/ss/dx/)

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