

FOLLOW UP INFORMATION PROVIDED BY DNV ON THE DNV-RP-0670 PROJECT.

This contributed paper follows the Oil IT Journal article ‘Asset information modeling framework for energy’ [<https://oilit.com/2025+02+2>]

As you probably know, the READI project ended in 2022, and the deliverables have been handed over to, for example, POSC Caesar Association (PCA) and Offshore Norway. We will therefore focus on newer developments and give an overview of what has happened since 2022.

The change of development from ISO 15926-14 to the development of ISO 23726-3 Industrial data ontology (IDO) has already been mentioned. A key reason for the development of a new standard series was to enable digitalization across industries i.e., being a standard series with a broader scope than the ISO 15926 which focuses on process plants and oil and gas production facilities.

The IDO community has grown and attracts a lot of interest, and the standard is supported by several companies of various types. Different industry communities are also actively developing IDO use cases:

- “Pump with firmware”: Use IDO to model an IoT-enabled centrifugal pump and using reasoning to detect faulty data precision.
- “Valve ontology”: Collaboration between parties in industrial value chains enabled by IDO. Applying reasoning to match product specifications to functional requirement specifications.
- “Pump life cycle”: Using IDO to align Alignment of process Industry standards like ISO 15926, CFIHOS, and DEXPI
- “Pump station”: Represent a simple process model in a lab environment to learn the basics of IDO.
- “Supply chain in Chemical Industry”: Receive technical data in the form of an ontology for raw materials.
- “UML to IDO transformation”: Demonstrate how to transform a data model from UML to IDO.
- “FMEA ontology”: Use IDO to make classes and relations held in spreadsheet tables explicit.

The IDO project is currently approaching its DIS ballot. For information about the IDO development and standardization, and use cases, we recommend contacting the PM for the project, Pål Rylandsholm, DNV. For general information about the more formal parts of the standardization process, see <https://www.iso.org/standard/87560.html>.

Since READI, we see that there is an interest in digitalization of requirements. We are working on this internally in DNV. Also, ISO and IEC is following their SMART roadmap towards providing standards as a service, and Standards Norway is running different pilots to learn about different aspects of digital standards.

As mentioned, IMF has also been further developed. For the development of the IMF framework itself, we recommend contacting PCA and/or University of Oslo. IMF implementation is driven by the industry. We therefore recommend contacting DISC for more information.

PCA is responsible for PCA reference data, including PLM RDL, and the IMF Type library. For information about this, we therefore recommend contacting PCA.

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Information kindly provided by Dr Lillian Hella (DNV-RP 0670 Project Manager)