Material Digital Passport: IOGP’s Joint Industry Sprint 01 (JIS01)

IODG’s JIS01 aims at developing a specification defining a Material Digital Passport system for improving material traceability and reducing likelihood of fraud in the energy supply chain.

JIS01 on Material Digital Passport proposes to introduce an industry standard for procured items with end-to-end traceability across project execution and asset operations, enabling cost reduction that is driven by trusted provenance and digitalized workflows.

This initiative includes a digital record of actions pertaining to a procured item, captured as immutable data with digital signatures and spanning its entire lifecycle:

- The item can be owned or rented, bulk item, raw material, individual equipment or engineered material.
- Recordable actions typically represent key steps in work processes that govern the item’s lifecycle e.g. specification, procurement, manufacturing, logistics, inspection, maintenance.

A digital passport aims to bring the physical equipment and the digital representation so close together that there is no real difference between the two.

Each piece of equipment will hold a unique physical to digital ID that can be verified by anyone but is not centrally controlled.

JIS01 is supported by several major International Oil Companies that believe the potential application value for industry to be substantial. The value of the digital passport is based on two drivers, namely trusted provenance (or traceability) and a more efficient workflow.

Trusted provenance of goods helps assure quality, avoid process safety incidents, and combat counterfeit material.

Digitalized workflows reduce not only paper, but also errors, effort, cost, and cycle time for clients as well as suppliers. It also improves trust between partners through data transparency.

JIS01 aims to deliver a standard by which buyers (e.g. IOCs) and sellers (e.g. manufacturers) can rely upon for the trade of goods and services that preserves the integrity of the material.

In a subsequent phase of the initiative, the goal is to deliver a working digital platform (software or hardware) that complies with the Material Digital Passport specification developed in the initial phase.

The initiative is a part of the IOGP Digital Programme. Requests for further information about the IOGP Digital Transformation Committee should be addressed to Lucyna Kryla-Straszewska, Principal Manager – Digital and Geomatics, at lks@iogp.org. For more information visit DTC website and MDP website.