Quality Criteria for ISO15926-8 Compliant Installation Descriptions

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Outline

- IOHN
- RDF Basics
- ISO15926-8
- Why do we need quality criteria?
- Sample Criteria

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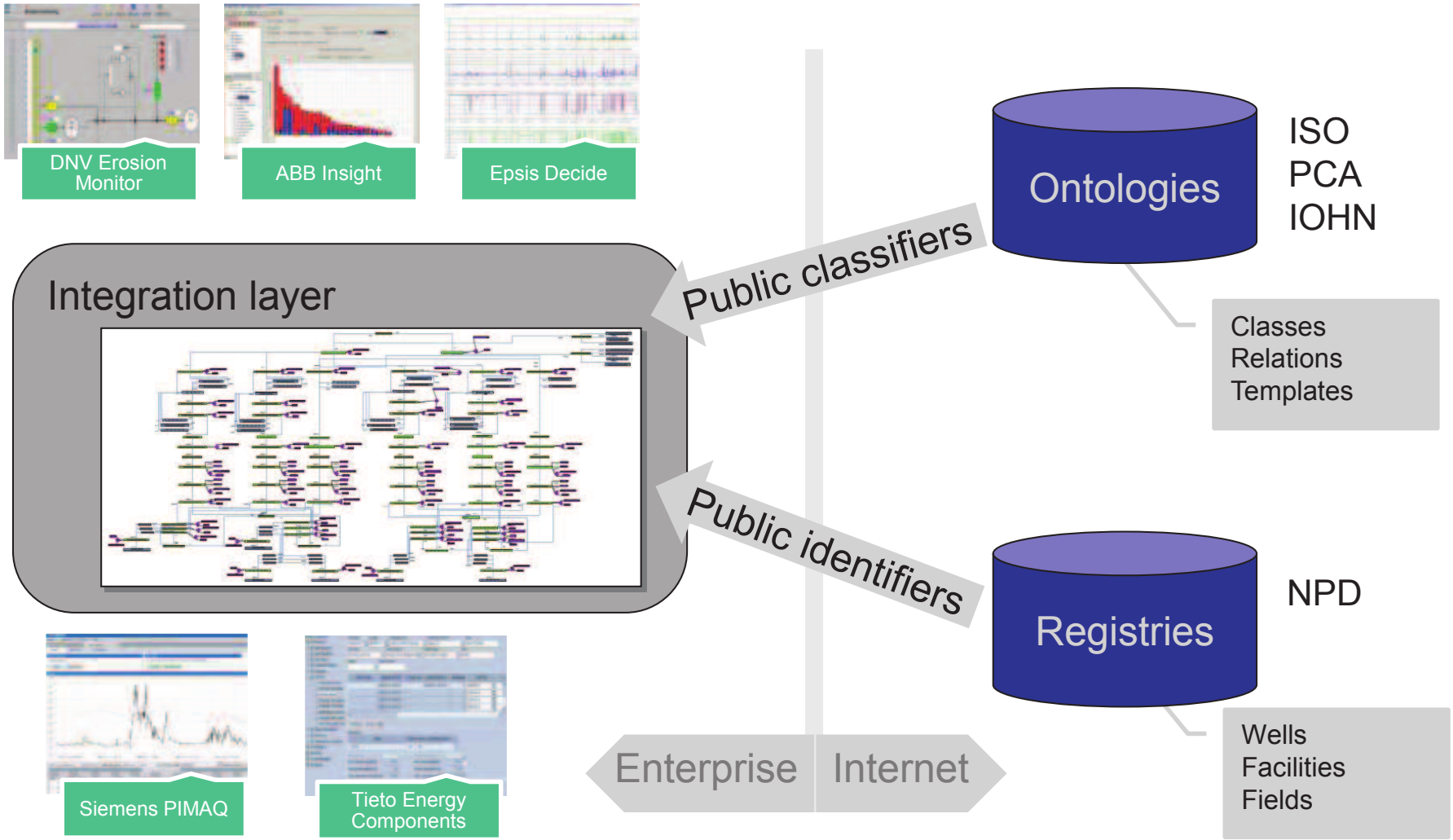
- Participants: ABB, Abelia, Baker Hughes, Cisco, Computas, Det Norske Veritas, ENI, Epsis, FMC Technologies, FSI, IBM, IO Center, IRIS, National Oilwell Varco, NTNU, OLF, POSC Caesar Association, Petroleum Safety Authority Norway, Siemens, Statoil, Norwegian Defence, University of Oslo, University of Stavanger

IOHN prototype



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  - Like strings, but can carry indication of language or data type.

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- Rich models can derive more unexpected inferred types

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- Template *definitions* $\approx$ macro expansion

$$T(x, y, z) \leftrightarrow C(x) \wedge R(x, y) \wedge S(y, z) \wedge D(z)$$

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- Best to separate them for installation descriptions.

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  - RDF data will have to be presented in separate parts to tools testing other criteria

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- Tools extracting information about e.g. all pressure sensors in the description need to rely on specific type information

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- E.g.:
  - Generic vocabulary: “Physical Thing”, “Connector”
  - Specific vocabulary: “air pressure sensor”, “M8 wood screw”

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- Reasoning can be expensive

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- Checking requires human action like e.g. code review

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- Currently, 14 formulated requirements

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- Implementation of a validation tool is underway at DNV and UiO

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