

Agenda

Africa and Europe PCA Forum and Member Meeting
Stavanger 2010-06-03

Nils Sandsmark
General Manager

Agenda

- **Welcome, Nils Sandsmark, PCA**
- **Statoil and ISO 15926, Oskar M. Fredagsvik, Statoil**
- **Updates from PCA, Nils Sandsmark, PCA**
- **Ongoing work in PCA's SIGs, Magne Valen-Senstad**
- **Lunch**
- **Woodside and ISO 15926, Richard R.M. Harris, Woodside**
- **Open O&M and ISO 15926, Alan Johnston, MIMOSA, USA**
- **Spreading ISO 15926 in Brazil, Eduardo Thadeu, Tecgraf/PUC-Rio**
- **Coffee break**
- **EqHub and ISO 15926, Knut Dagsvik, SHAREcat**
- **iRING and ISO 15926, Robin Bejamins, Bechtel**
- **Bentley and ISO 15926, Manoj Dharwadkar, Bentley**
- **RFID and ISO 15926, Jennifer Sampson, Statoil**
- **Summing up, Thore Langeland, OLF**

Updates from PCA

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Main goals for 2010 - Operation

- New strategy for PCA
 - Strengthen the PCA organization
 - Sustainable operational RDL
 - Conformance specification and testing
 - Improve the Reference Data Support System
- Add new members
- Get the Technical Advisory Board (TAB) and the Special Interest Groups (SIGs) in full operation

Strengthen the PCA organization

Three new members of the PCA staff:

- **Nina Lein Nybråten - Office Manager**
- **Lillian Hella - Semantic Technology Specialist**
- **Ian Glendinning – Principal Consultant**

Sustainable operational RDL

- Continue existing Reference Data Services
- The JORD project – Co-operation with FIATECH
 - Business model supporting 3-7 full time staff
 - Improved reference data support system
 - Improved processes and procedures
 - Improved conformance specification
 - Conformance testing

Special Interest Groups (SIGs)

Active PCA SIGs:

- ISO 15926 Geometry
 - In co-operation with FIATECH and the iRING User Group
- Instruments
 - In co-operation with EPIM (EqHub) and others
- Drilling
 - In co-operation with EPIM RUF and IOHN
- Reporting to authorities
 - In co-operation with EPIM (RUF) and Energetics

Special Interest Groups (SIGs)

Planned PCA SIGs:

- Standard equipment SIGs in addition to instruments
- Operation and Maintenance
- Production
- RFID
- IT architecture
- Environment

PCA is open for co-operation in SIGs

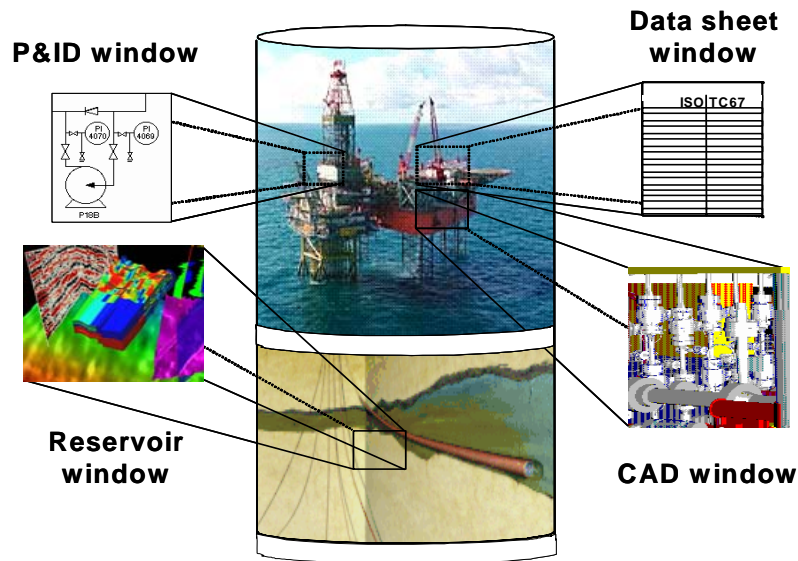
Main goals for 2010 - Development

- **Support the ISO initiative on standardized reference data in database format**
- **Support and initiate projects to extend and improve the quality of the Reference Data Library**
 - IOHN
 - EPIM RUF
 - EqHub
 - Others
- **Maintain the strong co-operation with OLF, EPIM, FIATECH and OpenO&M and strengthen the collaboration with Energetics and W3C**

Support the ISO initiative on standardized reference data in database format

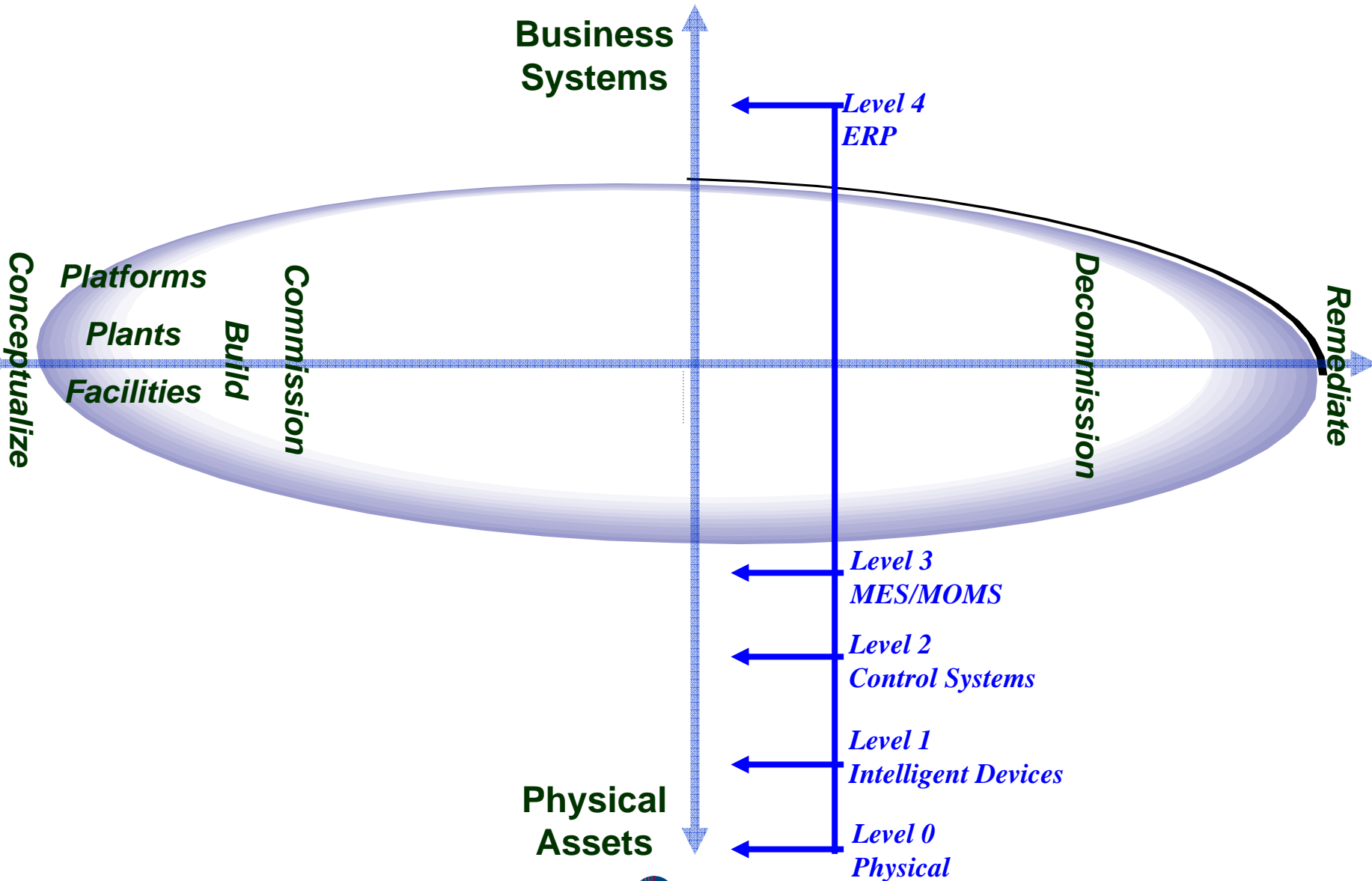
- Procedures and organization for ISO TC 184/SC4 reference data in database format were approved in April 2010
- PCA objectives for 2010:
 - Initiate pilot on reference data for instruments
 - Support completion of ISO 15926 Phase 1
 - Part 6
 - Part 7 & 8
 - Part 9 & 10

Vision of ISO 15926 Development Interoperability and Life Cycle

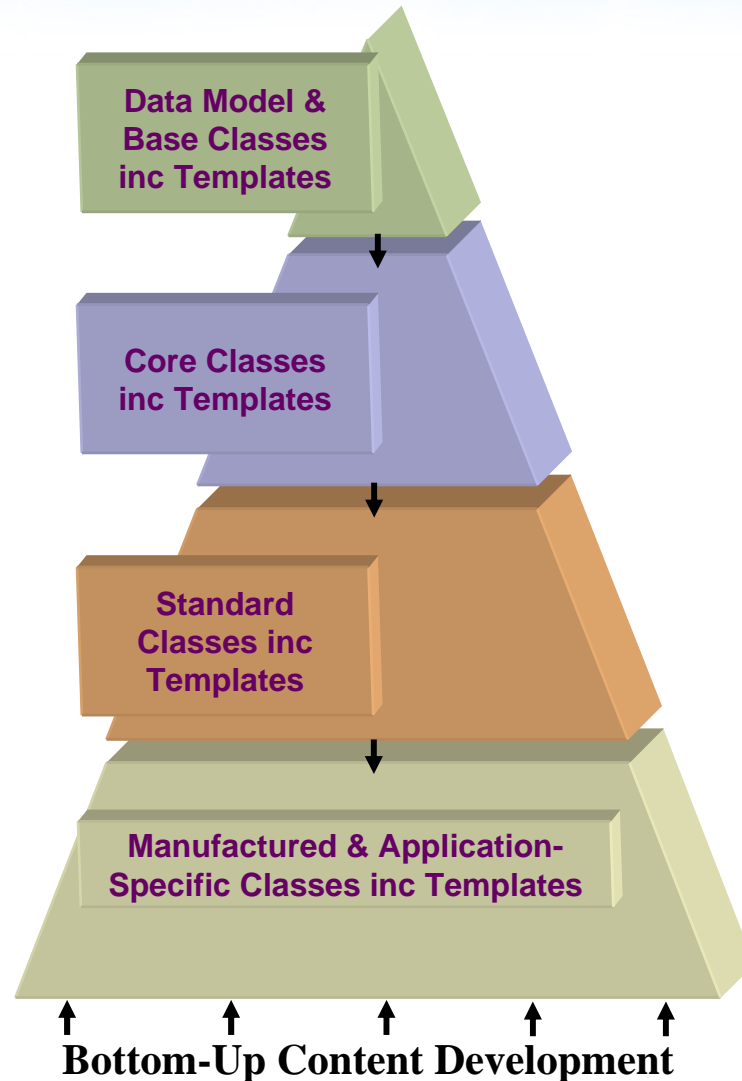


- Started with standards for information handover between EPCs and Owners/Operators
- The last 5-6 years have terminology for Integrated Operations been a focus area
- The last 2-3 years have Operation & Maintenance and integration between Engineering and Operation & Maintenance been important
- The last 2 years Condition Based Operation has also been in focus

Life Cycle and Plant to Business (P2B) View



Reference Data Architecture



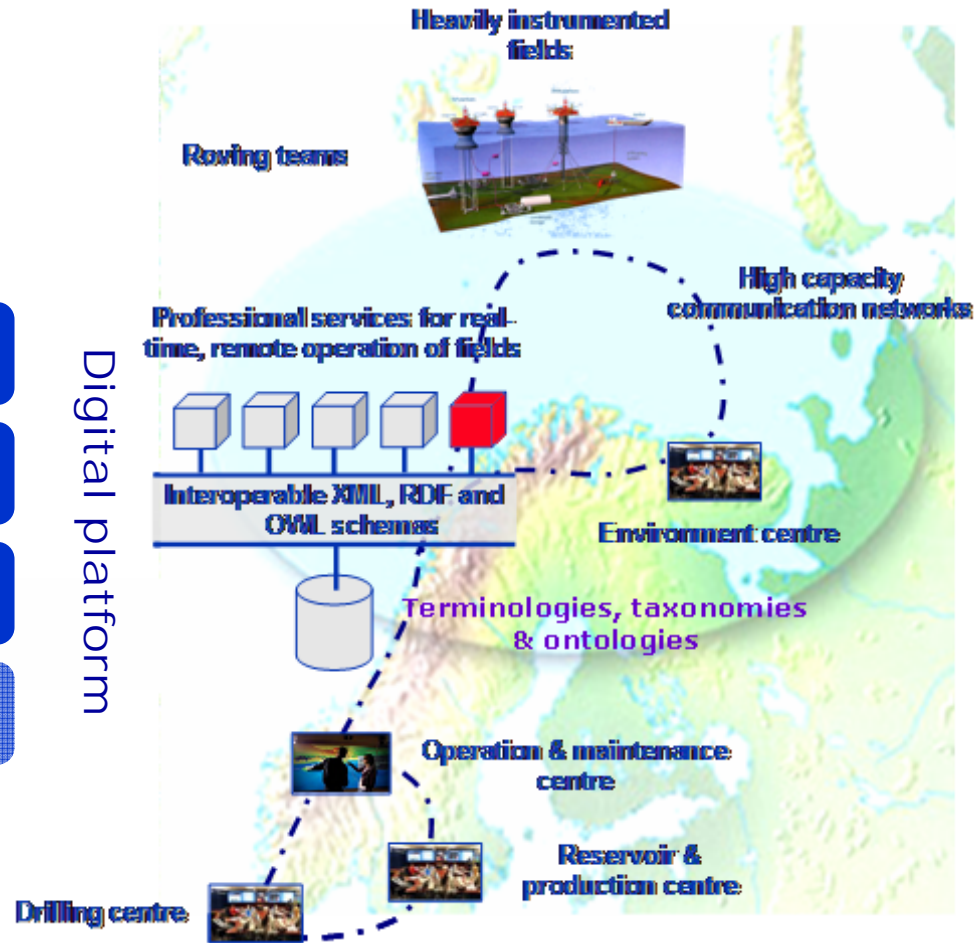
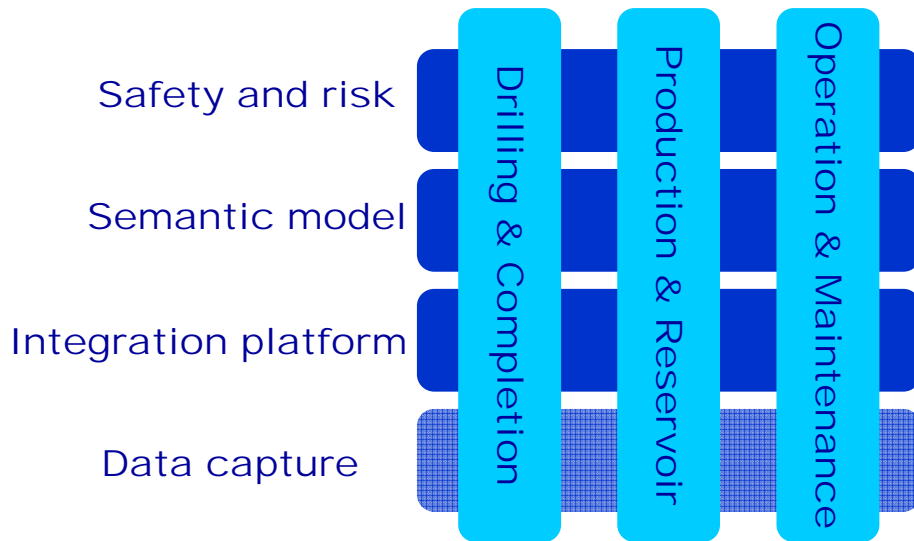
Integrated Operations in the High North (IOHN)

Demonstrating a reliable digital platform for IO G2 in the High North

Integrated Operations in the High North – Joint Industry Project

IOHN

Business processes



E&P Information Management Association (EPIM)

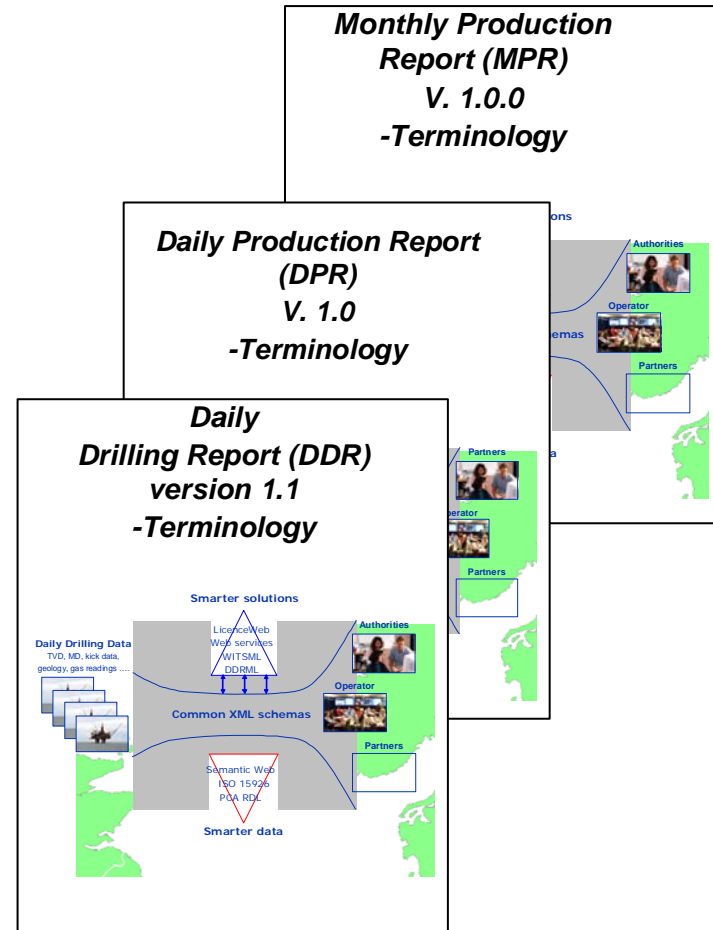
EPIM was established by and for the operators on the NCS for managing common industry solutions such as:

- LicenseWeb
- AuthorityWeb
- EnvironmentWeb

EPIM has also the management of the content (semantic) and the format of the XML schemas used for:

- Daily drilling report
- Daily production report
- Monthly production report

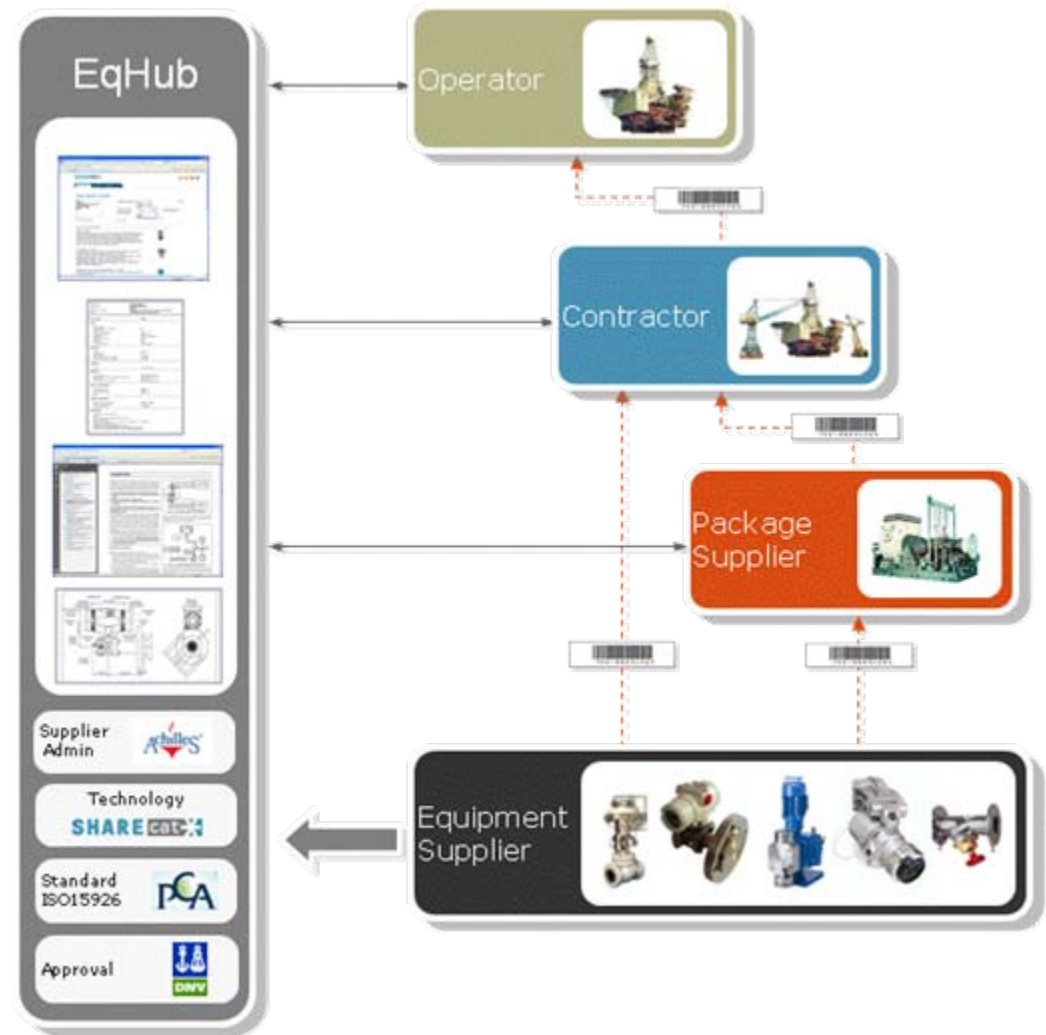
From July 1, 2010, EPIM will be the owner and operator of EqHub, a repository for standard equipment information



<http://www.epim.no/visartikkel.asp?id=1251>

EqHub - A common repository for equipment

- EqHub will be covering at least 80% of the tagged equipment in use offshore
- Initiated by OLF and owned and operated by EPIM
- Data sheets according to ISO 15926



Deployment RFID oil and gas

Deployment of RFID in oil and gas

– an OLF Guideline for:

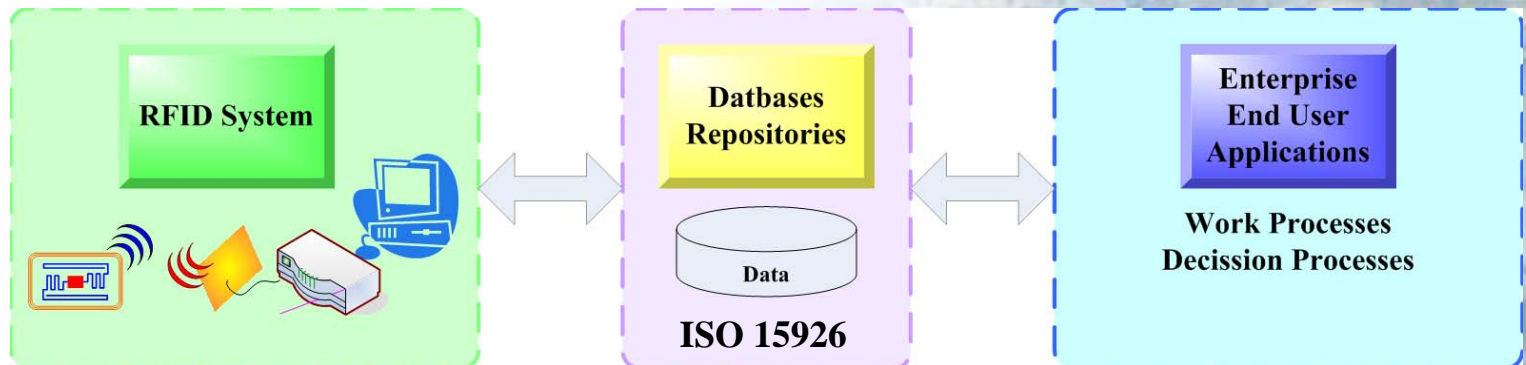
- ✓ Personnel
- ✓ Containers
- ✓ Drill strings
- ✓ Fixed and mobile equipment

The guideline is based on ISO standards

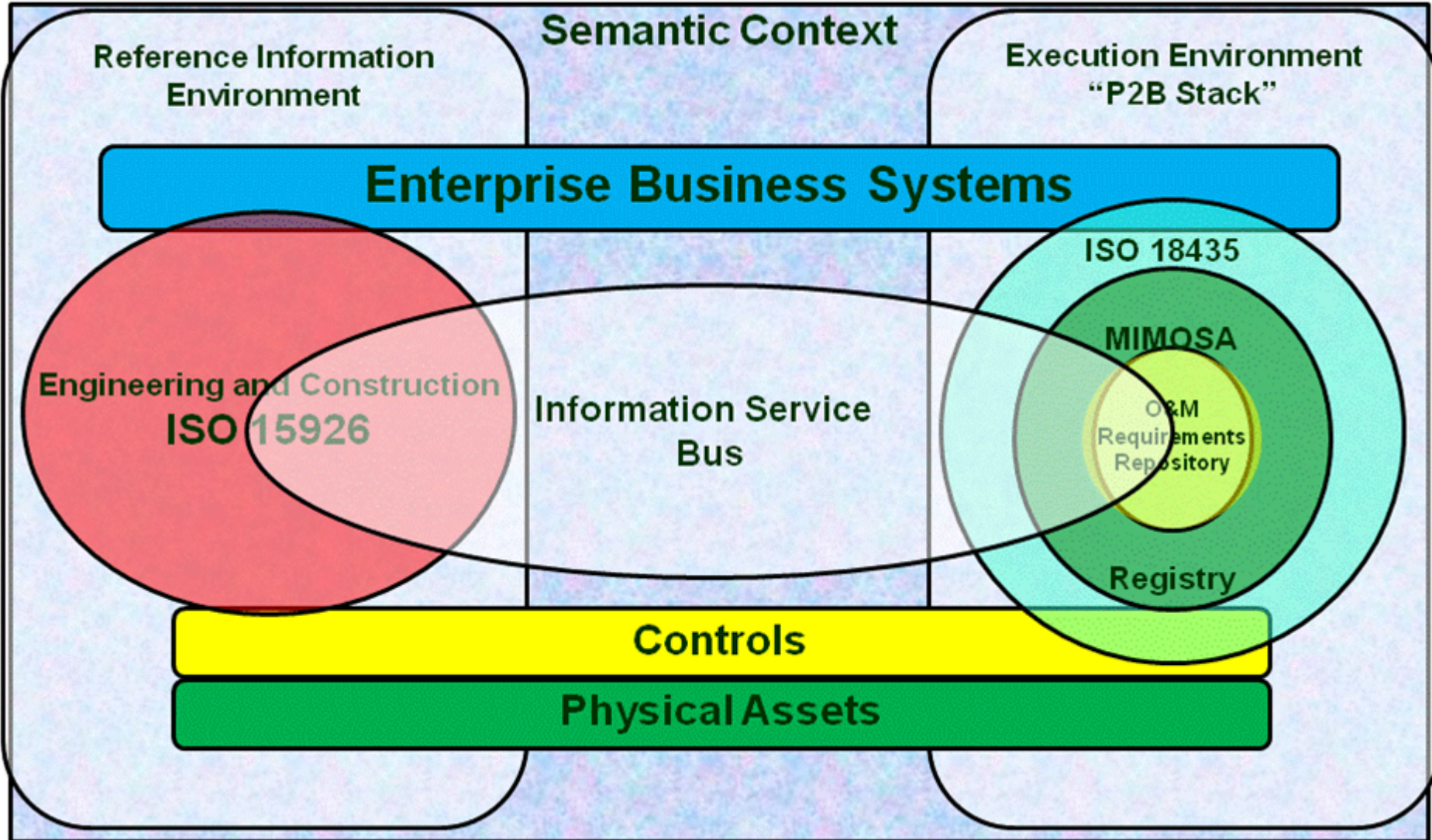
<http://www.olf.no/guidelines/112-olf-guideline-for-deployment-of-radio-frequency-identification-rfid-in-the-oil-and-gas-industry-article19582-301.html>

In 2005 there were 1.3 billion RFID tags in circulation

.... by 2010 there will be 33 billions.



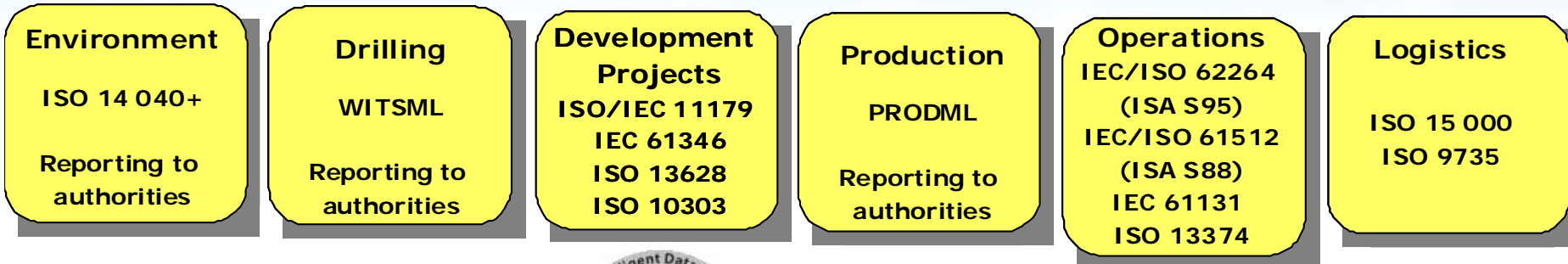
Context for Collaboration



Key joint MIMOSA – PCA Projects

- Asset Globally Unique ID, Registry and RFID Tagging and Tracing
 - ✓ Norwegian Continental Shelf
 - ✓ Americas
 - ✓ Global
- Key Physical Asset Parameters
 - ✓ Global project
 - ✓ Critical Infrastructure Management
 - ✓ Initial focus on common rotating equipment and valves
- Open Information Service Bus
 - ✓ IBM, Microsoft and SAP
 - ✓ Previously called “OpenO&M Event Oriented Message Bus”
 - ✓ Use case driven
 - ✓ Specification for Open On-Ramps and Off-Ramps
- OpenO&M and ISO 15926 Topology Mapping
 - ✓ Practical bootstrapping for current projects
 - ✓ Basis for reverse engineering into ISO 15926

PCA collaborates globally on the oil and gas ontology



Data integration based on ISO 15926 for creating an Oil and Gas Ontology (OGO)

