

GDF SVEZ

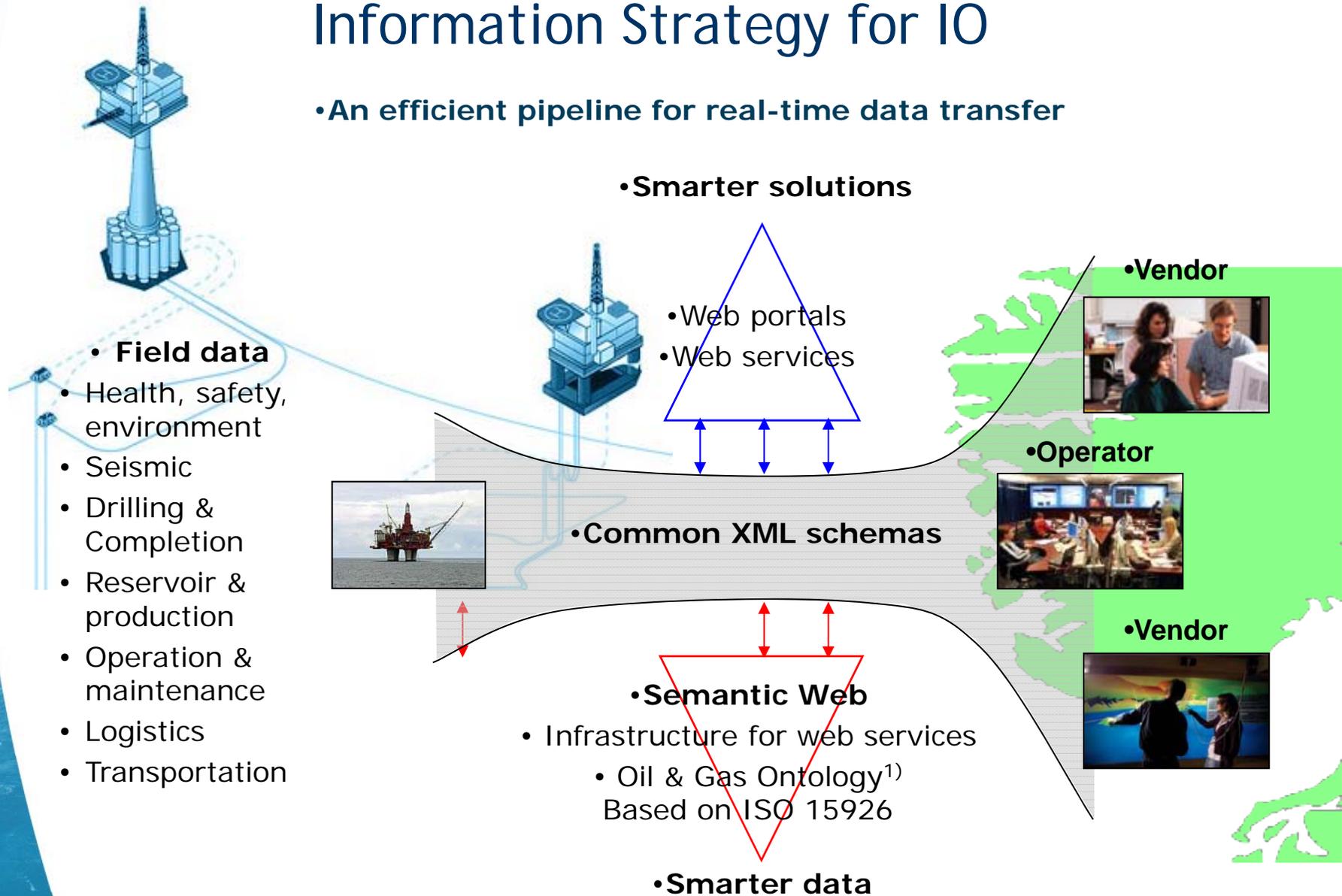
Welcome
to
ISO 15926 and Semantic technology
Sogndal, 6-7.09.2012

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Information Strategy for IO

•An efficient pipeline for real-time data transfer



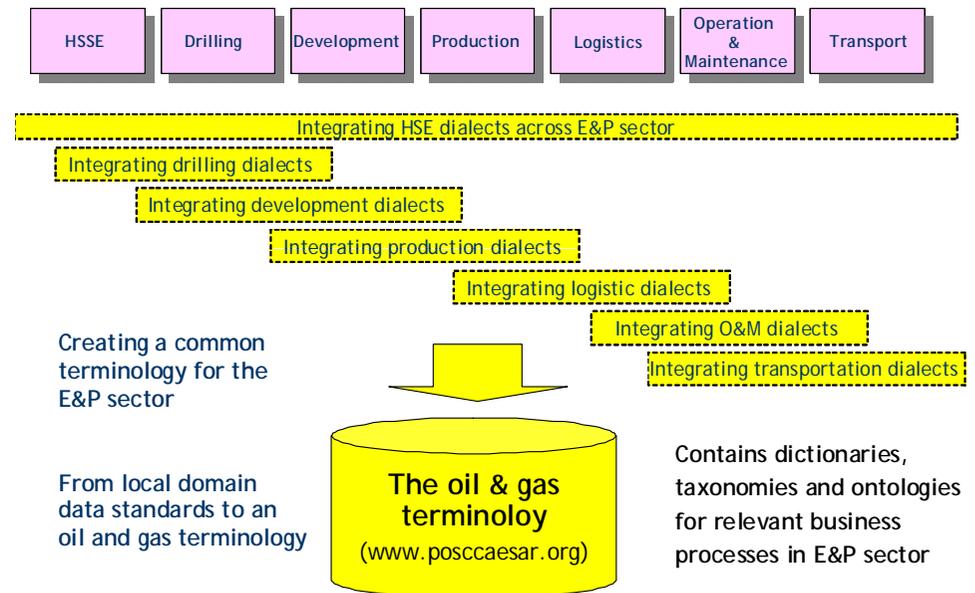
•¹⁾**Ontology** = A hierarchical data structure containing concepts, relationships, properties and rules for a specific domain

Information quality

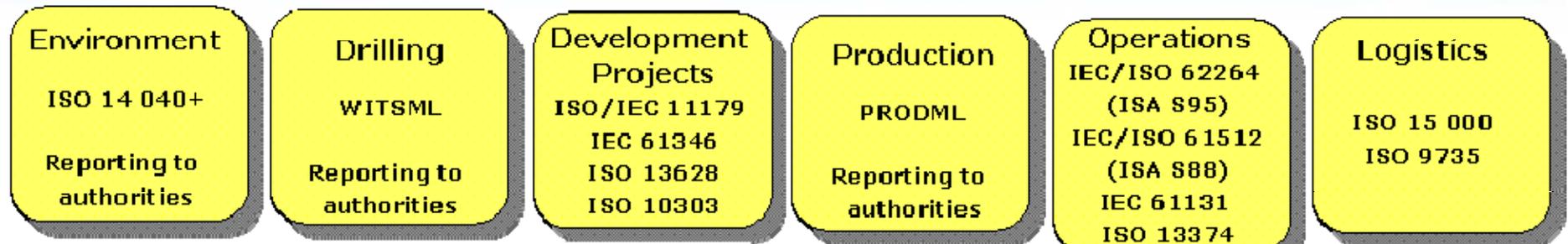
- Information quality
 - ✓ A common dictionary (HSE, drilling, development, production, logistics, operation and maintenance)
- Deployments
 - ✓ Daily Drilling Report
 - ✓ Daily Production Report
 - ✓ Monthly Production Report
 - ✓ Yearly Environmental Report
 - ✓ RFID deployment
 - Personnel
 - Container
 - Drill string
 - Equipment
 - ✓ EqHub - a common database for standard equipment
 - ✓ ReportingHub

Harmonizing the E&P terminology

Integrating the terminology from the different business domains in E&P



PCA collaborates globally on the oil and gas ontology



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



<http://www.posccaesar.com/>



E&P Information Management Association (EPIM)

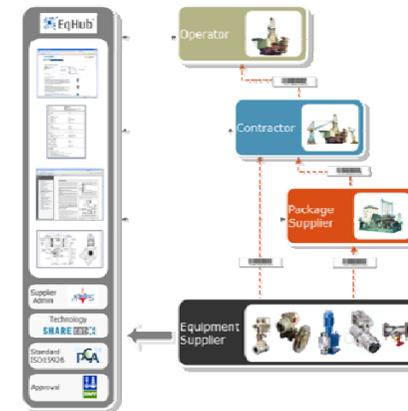
EPIM is the instrument for the operators on the NCS to secure efficient information sharing among all relevant stakeholders by providing cost effective and user friendly common digital solutions based on international standards.

Services today:

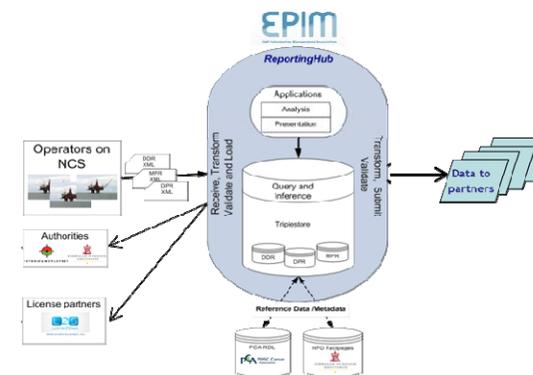
- License2Share (L2S) - is collaboration tool and a repository for all licensees on the NCS containing all documents shared in a license with the partners and authorities (more than 6 000 urses)
- EnvironmentWeb - yearly report of emissions and discharges to authorities



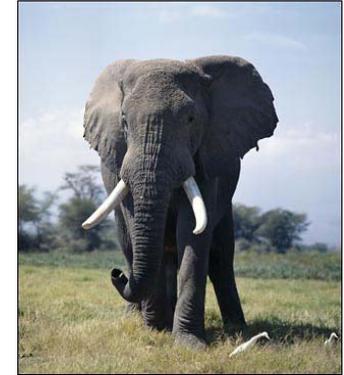
- EqHub - quality standard equipment information



- ReportingHub - standard drilling and production reports (RDF store/triplestore)



How to get started with the oil and gas terminology and ontology?



Initiator

Daily Drilling Report
Daily Production Report
Monthly Production Report
Yearly Environmental Report
EqHub (equipment information)
ReportingHub
LogisticHub



Standardization

Reference Data System
RDS
RDS (includes PRODML)
RDS
RDS - in progress
RDS -in progress
RDS - in progress



Operations

January 1, 2009
January 1, 2009
January 1, 2009
-
Dec. 1, 2013
Dec. 1, 2012
Dec. 1, 2013 ?

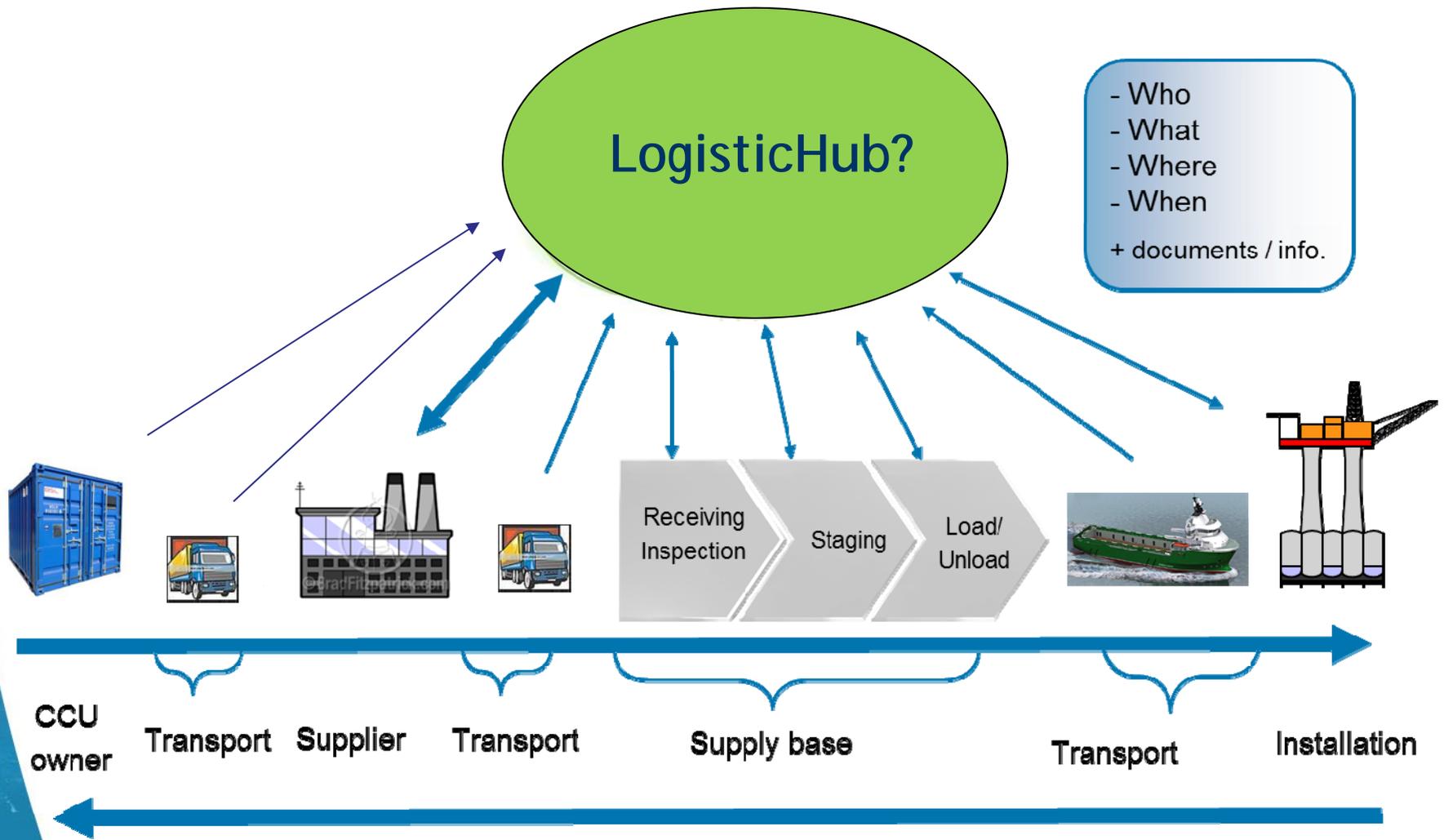


LOGISTICHUB ONGOING PROJECT



RFID tracking of CCU in the supply chain

Supplier case

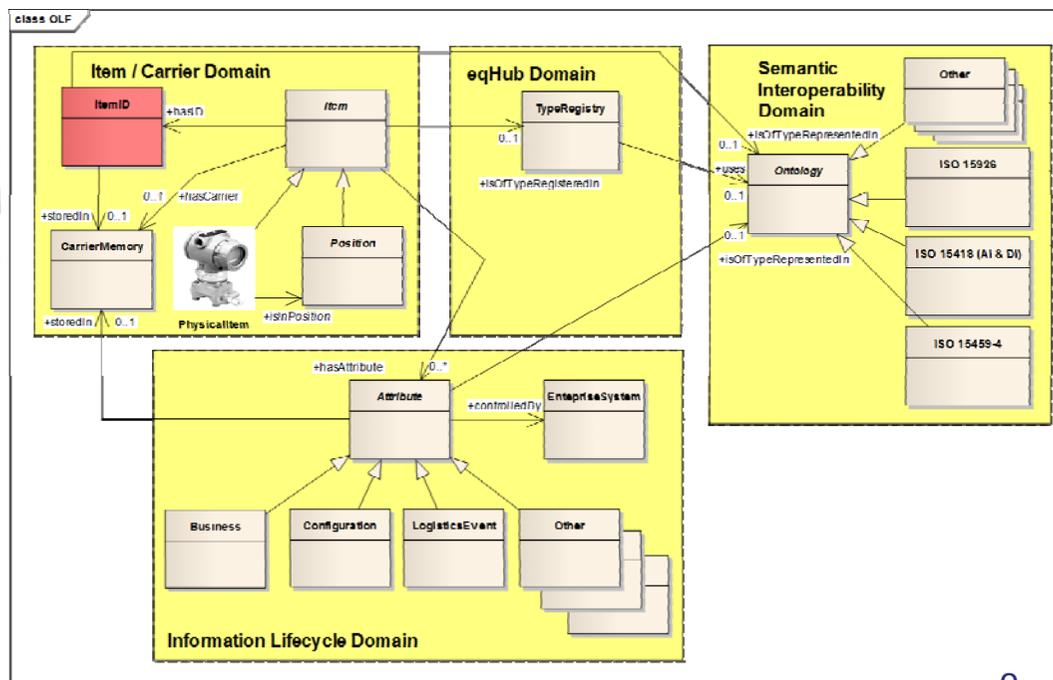
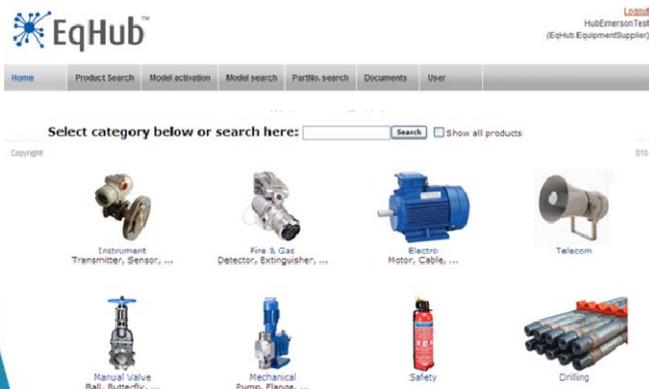


Phase II of LogisticHub

➤ Mobil equipment



➤ Fixed equipment offshore



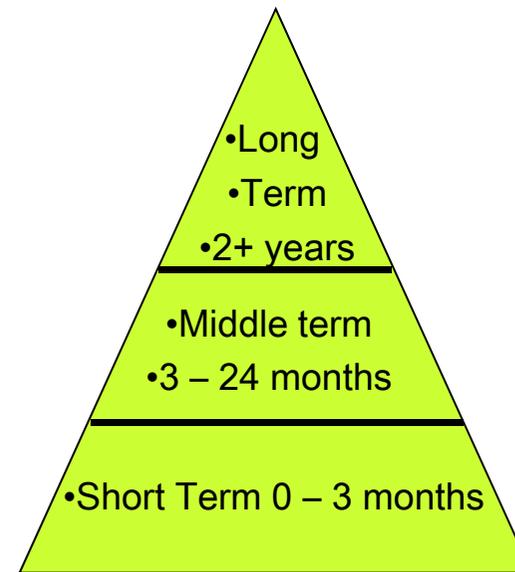


INTEGRATED BUSINESS PLANNING KICK OFF IN OCTOBER?



Integrated business planning

- Proposed OLF project covering top level in the planning process for the operators.
- The engineering companies shall provide following information as XML file for each activity:
 - ✓ Referanse number
 - ✓ Activity name / description
 - ✓ Start date (planned and real)
 - ✓ End date (planned and real)
 - ✓ Duration
 - ✓ Estimated hours
 - ✓ Oppdragsleder
 - ✓ Task responsible
 - ✓ Responsible for operation
 - ✓ Decision status wrt. CVP process
 - ✓ Critical/not critical maintenance (flag)
 - ✓ Priority of the task (local)
 - ✓ Progress status
 - ✓ Phase
 - ✓ If loss of production, then estimate expected loss

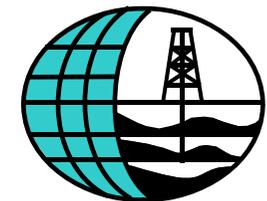


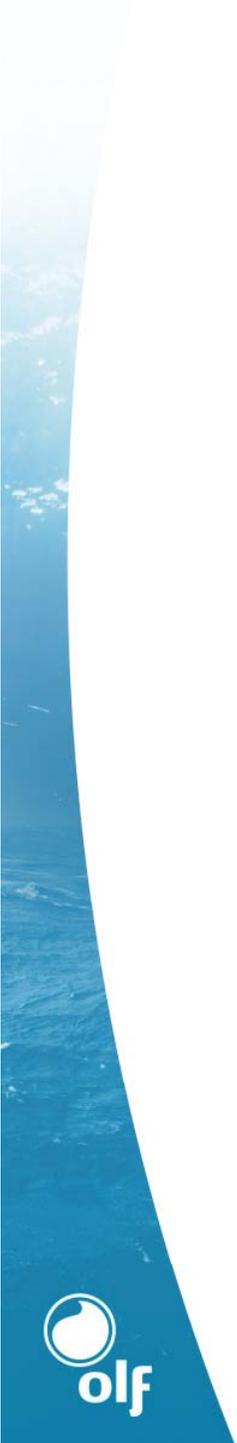
•Application

•Safran/Primavera

•Safran/SAP

•SAP



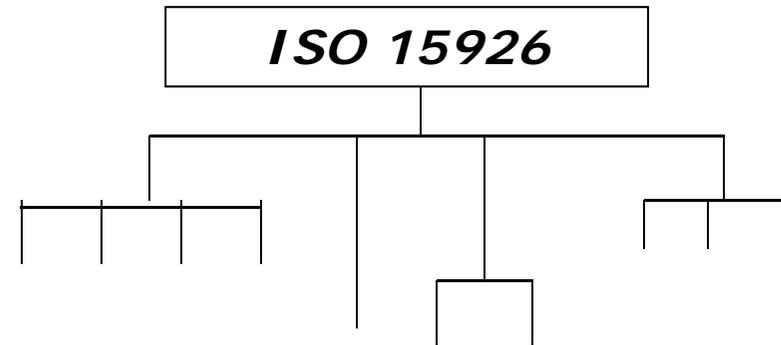
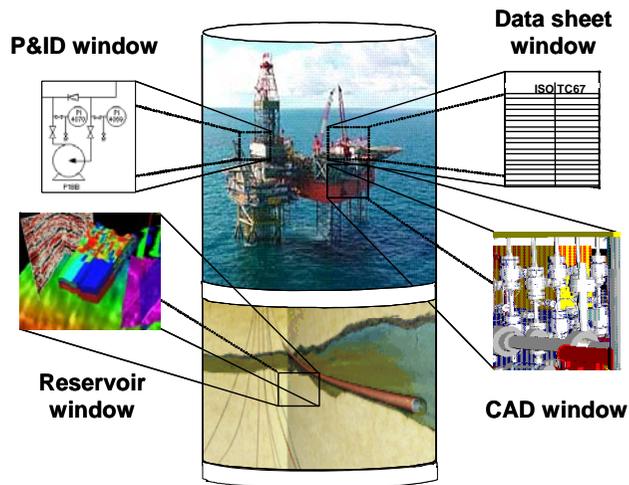


ASSET MODELLING - PRODUCTION OPTIMIZATION

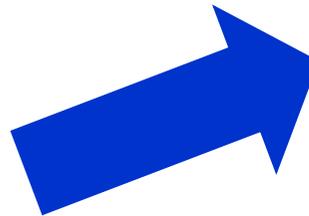
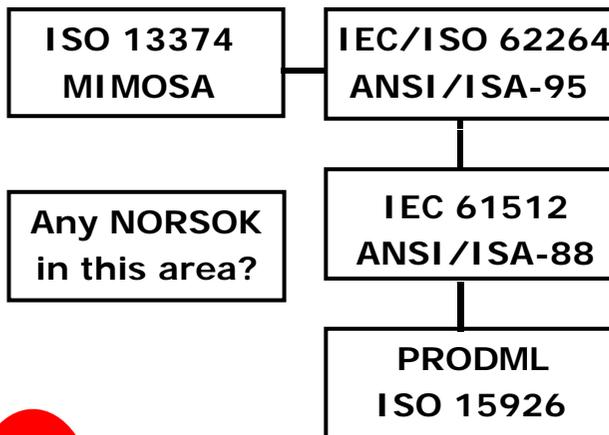
PROMOTING THIS PROJECT

“Manufacturing” Oil & Gas (MOG)

Integration by ISO 15926



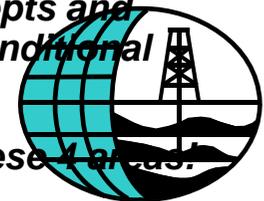
Include optimal set of information in ISO 15926 from :



- **ProdML – production optimization**
- **IEC 61512 - concepts and relations between them for process control and safety**
- **IEC/ISO 62264 – concepts and relations between them for manufacturing execution systems (MES) and enterprise resource systems (ERP)**
- **ISO 13374 / MIMOSA – concepts and relation between them for conditional maintenance**



Consistency check between these 4 areas!



We do need many more triplestores
in oil and gas!

THANK YOU!

