CONCEPT & PRINCIPLES

Insight in EPIM, its services and the evolvement of collaboration on NCS
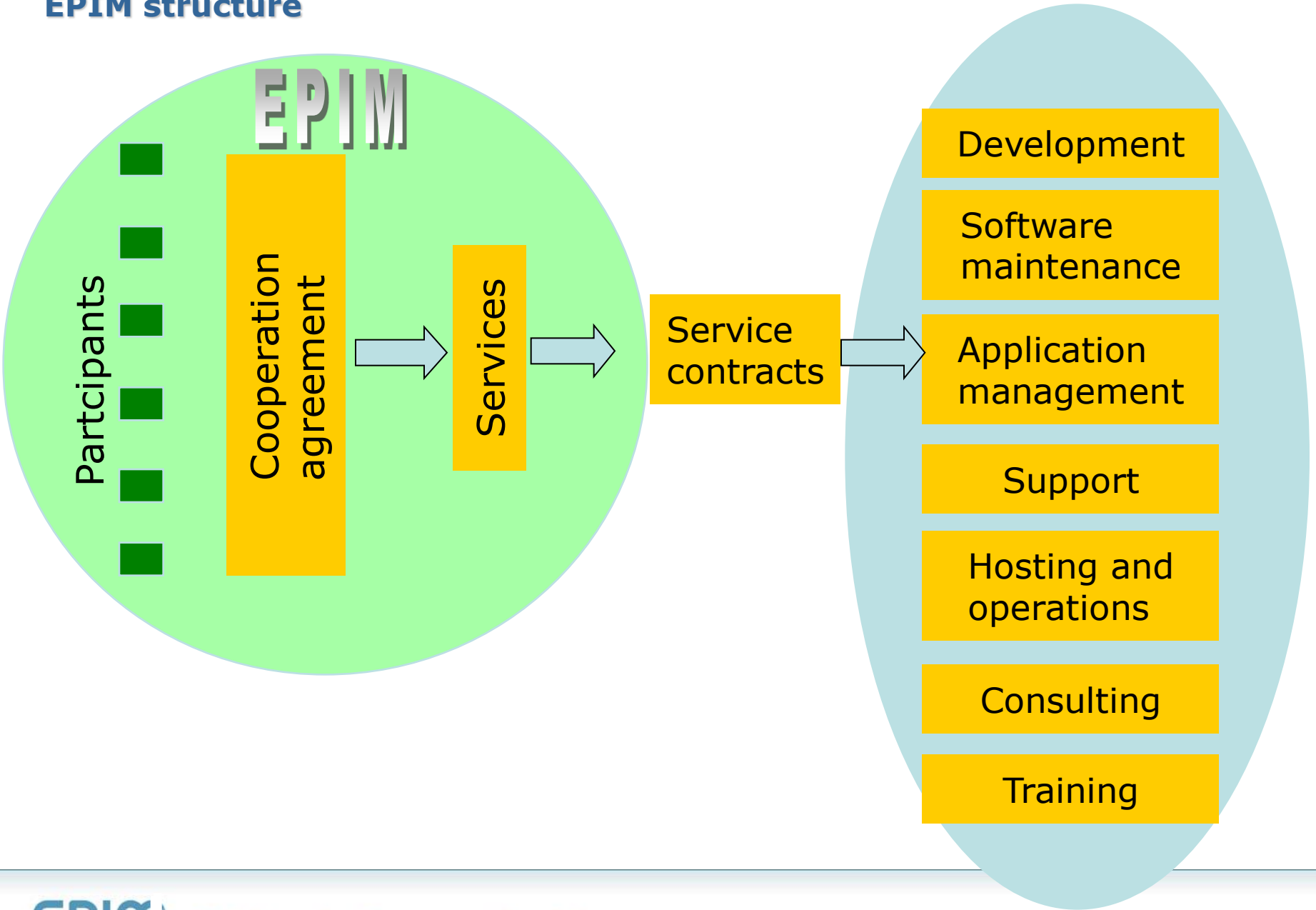
EPIM

Exploration & Production Information Management (EPIM) is an non-profit administrative arrangement organised as an association constituted Nov. 2007 (registered as a legal entity)

Objective:

- *Utilise and make available IT solutions that facilitate the best possible flow of information between any and all of its users, these being relevant authorities and licensees involved in exploration, production and transport on the Norwegian Continental Shelf*

- Participants are operators of exploration permits, production and transport licenses and of joint ventures involved in activities on the Norwegian Continental Shelf. Users are all pre-qualified operators authorities and partners.

- 40 Operators are members – 80 companies (partners and authorities included utilizes the services provided by EPIM

EPIM structure

Participants | Cooperation agreement → Services → Service contracts →

- Development
- Software maintenance
- Application management
- Support
- Hosting and operations
- Consulting
- Training

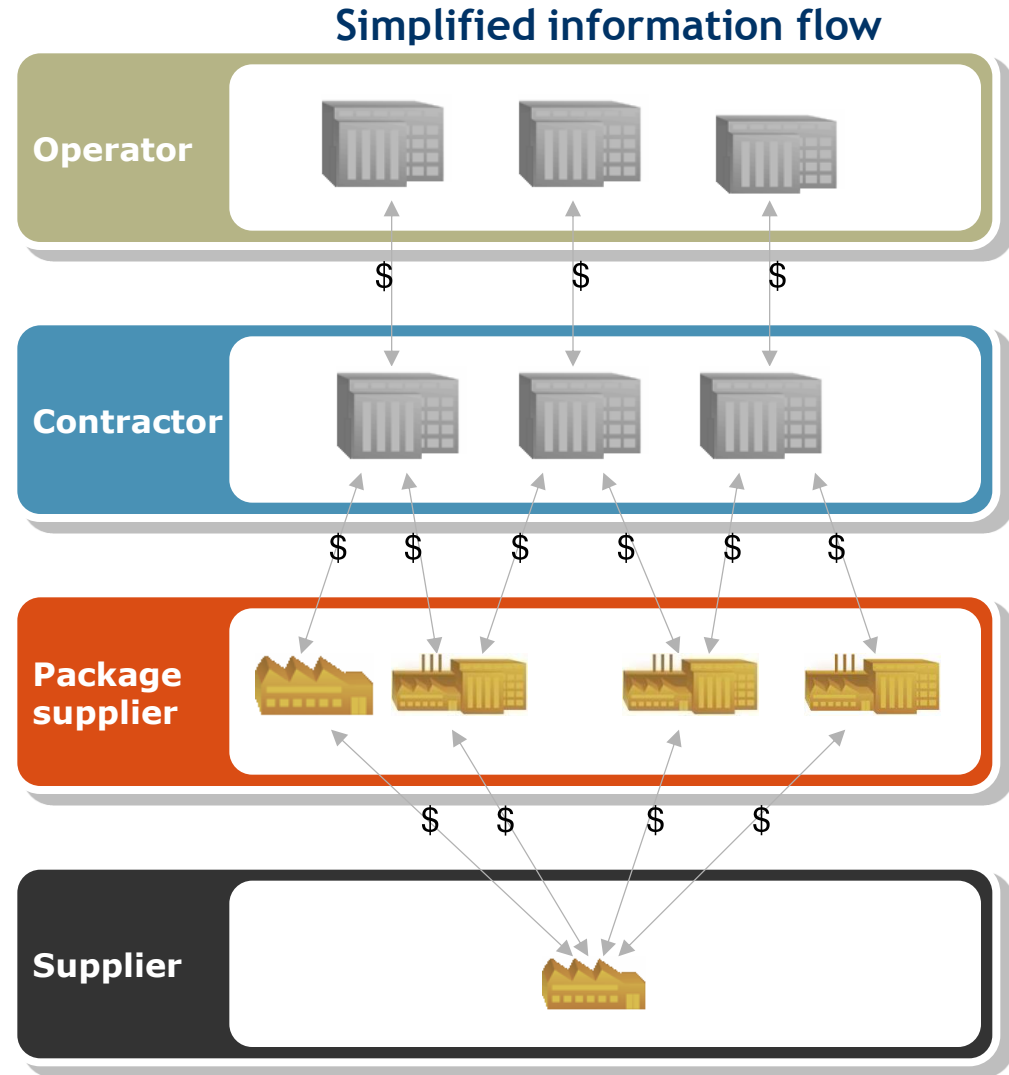EPIM | E&P Information Management Association

EPIM Services

- **License2Share** - The official communication and archiving tool for administrative interaction between operators, partners and authorities for all licenses on the NCS. Designed to meet the requirements for information handling as stated in the license agreements

- **License2share International**

- **EqHub** - A single sourced technical information repository for all operators and suppliers. The repository provides access to pre-qualified, classified and quality assured information when needed

- **EqHub Int. (underway)**

- **EnvironmentWeb** - A database solution for gathering and analyzis of data about releases to sea and emissions to air. Manadatory solution according to the The Pollution Control Act.

- **EPIM ReportingHub** - A reporting solution based on Semantic WEB technology & solutions/ NPD Fact Pages/ ISO 15926 to facilitate drilling & production reporting on NCS

- **GSTR (Gas Sales Tax Reporting)** Solution for reporting gas sales to the Norwegian Oil Taxation Office

- **Outcrop Data** - A digital data base for outcrop data (DDOD), headed up by the FORCE Sedstrat Group (19 Operators). Uses L2S for storage and sharing

- **Norwegian Deepwater Programme** - The deep-water licenses in Norway have joined forces in order to carry out cost effective preparations for safe and efficient drilling and field development, headed up by Norske Shell

- **GSK** - A database for PSK-approved training providers to use the website sikkerhetskurs.org to register training activity for the courses GSK

Pre-qualified equipment information delivered once and for all

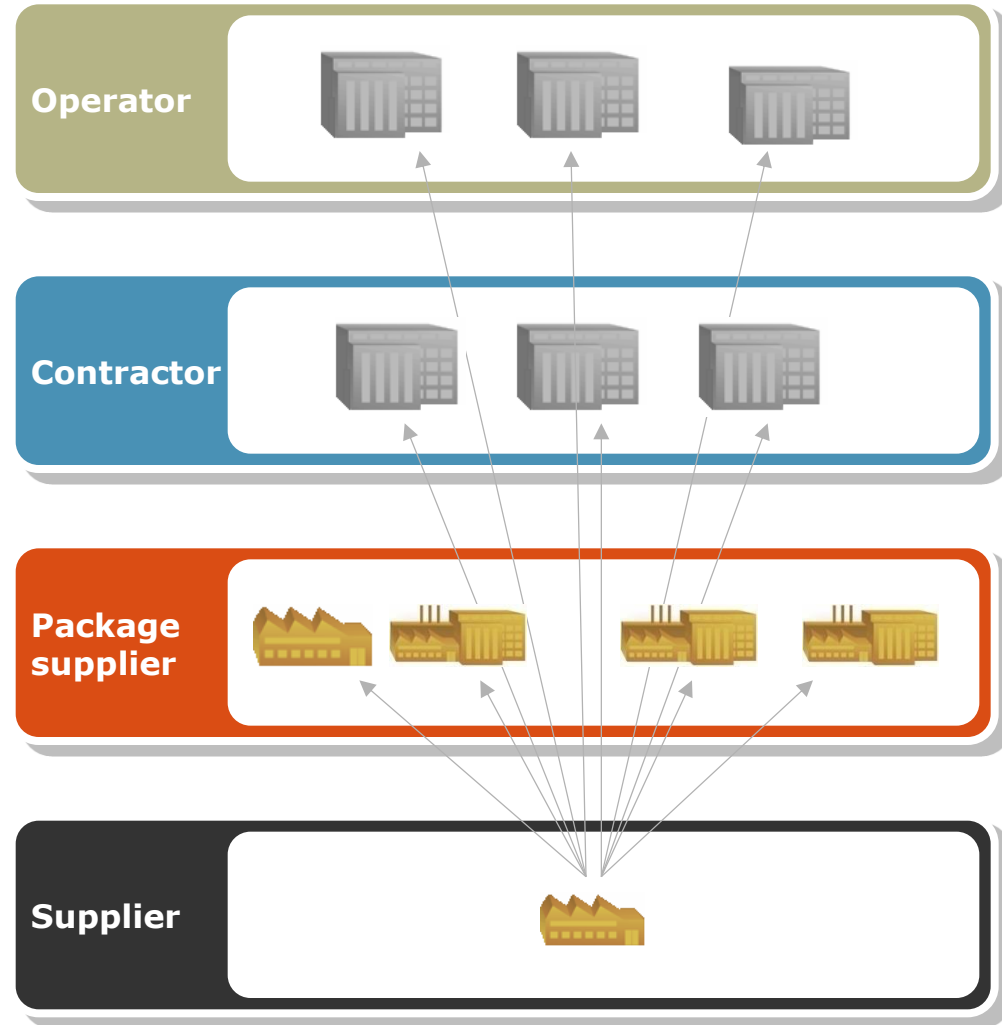# Challenges for operator, contractor, package supplier – without EqHub

- 60 % of data books consist of standard documents. Through the many steps in the supply chain there is a significant risk of increasingly reduced document quality

- Negative impact on time schedule

- Cost consuming

- Inconsistant and different information on same type of equipment

- Difficult to cover real documentation cost

Simplified information flow

Operator

$ $ $

Contractor

$ $ $ $ $ $

Package supplier

$ $ $ $

Supplier

Challenges for a manufacturer - without EqHub

Simplified information flow

- Serving many clients in the same project

- Inconsistant and different requirements from customers on same type of equipment

- Delivering the same information again and again but with different formats

- Difficult to cover real documentation cost

- Time consuming

Operator

Contractor

Package supplier

Supplier

EnvironmentalWeb

EnvironmentalWeb

- Mandatory solution for reporting environmental data to authorities
- In operation since 2003
- EnvironmentWeb is a database solution for gathering and analyzing data about releases to sea and emissions to air.
- The solution is built on Microsoft.NET technology, and was the first of its kind in the world. EnvironmentWeb makes the gathering and systematization of the important environmental data more effective.
- It saves the oil companies a lot of work and at the same time provides a far better tool to analyse release trends and evaluate the effects on environmental measures
- Organised as a pay per use services in EPIM (to be changed)
- New technology to be implemented for managing 2013 reporting (march 2014)

olf

Veiledning til den Årlige Utslippsrapporteringen

Gjelder:

Klifs TA 2718 «RETNINGSLINJER FOR RAPPORTERING FRA PETROLEUMSVIRKSOMHET TIL HAVS»

og

Statens strålevern «Retningslinjer for årlig rapportering av utslipp fra petroleumsvirksomhet»
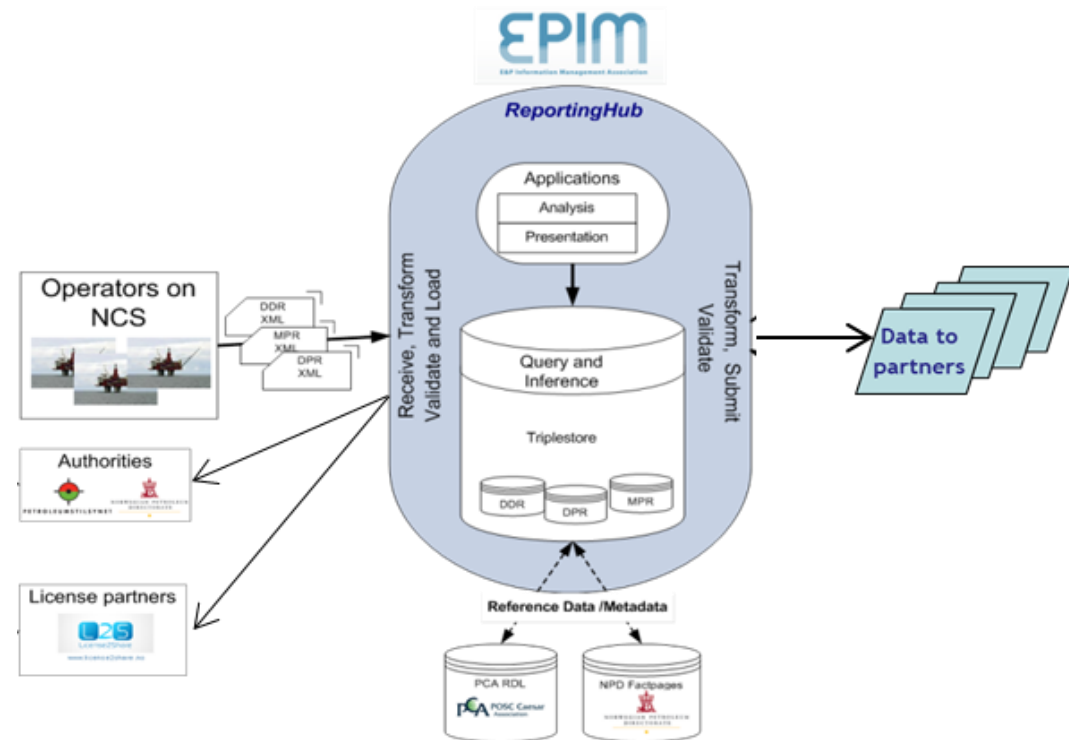
8. Januar 2012

ReportingHub

ReportingHub

The reports operated by EPIM are:

- daily drilling report (DDR) to partners and authorities
- daily production report (DPR) to partners and authorities
- monthly production report (MPR) to partners and authorities will become a part of the reportinghub being implemented 4Q 2012

- The contents of these reports are structured according to ISO 15926 and constitute a significant part of the oil and gas ontology, providing the basis for data interoperability in the E&P sector.

- The oil and gas ontology is an important element in the IT architecture for NOROG IO Generation 2 where the infrastructure is a loosely-coupled integrated solution based on service oriented principles.

- Today the oil and gas ontology is available free of charge in PCA's RDS.

  The current format of these reports are in compliance with Energistics' WITSML and PRODML specifications for drilling and production, respectively.

ERH – Main Objectives – Phase 1

➢ Shall receive drilling and production reports from operators on the NCS, validate, store and send them to authorities and partners

➢ Shall provide drilling and production data to the partners on request

➢ Shall be flexible for changes in the reports and easy to extend to new types of reports

➢ Shall be based on NPD Fact Pages and PCA E&P ontology (ISO15926)

Logistics on the NCS – An overview 2012

Licensees
- ✓ 500+ Active Production Licensees
- ✓ 80+ Fields in production
- ✓ 10+ Active Transport Licensees

37 Operators
- ✓ 12 operators with production
- ✓ 1 operator of pipelines
- ✓ 6 operators with PDO (no prod.)
- ✓ 18 operators with only exploration

Suppliers of services
- ➢ Rig suppliers
- ➢ Service companies
- ➢ O&M contractors
- ➢ Transport suppliers

RFID

Cargo & Passenger
➢ Supply ships
- ✓ Cargo Carrying Units
  - • Equipment

➢ Helicopter
- ✓ People (POB)
- ✓ Equipment

➢ Tanker
- ✓ Oil

Offshore supply bases
- ✓ Kirkenesbase, Kirkenes
- ✓ Polarbase, Hammerfest
- ✓ Norbase, Harstad
- ✓ Helgelandsbase, Sannessjøen
- ✓ Vestbase, Kristiansund
- ✓ Kistiandsundbase, Kristiansund
- ✓ Fjordbase, Florø
- ✓ Mongstadbase, Lindås
- ✓ Coast Center Base, Sotra
- ✓ Stordbase, Stord
- ✓ Norsea base, Tananger, SOLA
- ✓ Norsea base, Dusavika, Stavanger