

# Standardisering i Statoil

Årskonferanse

Petroleumsstandardisering

29.04.10

Sven Klemp

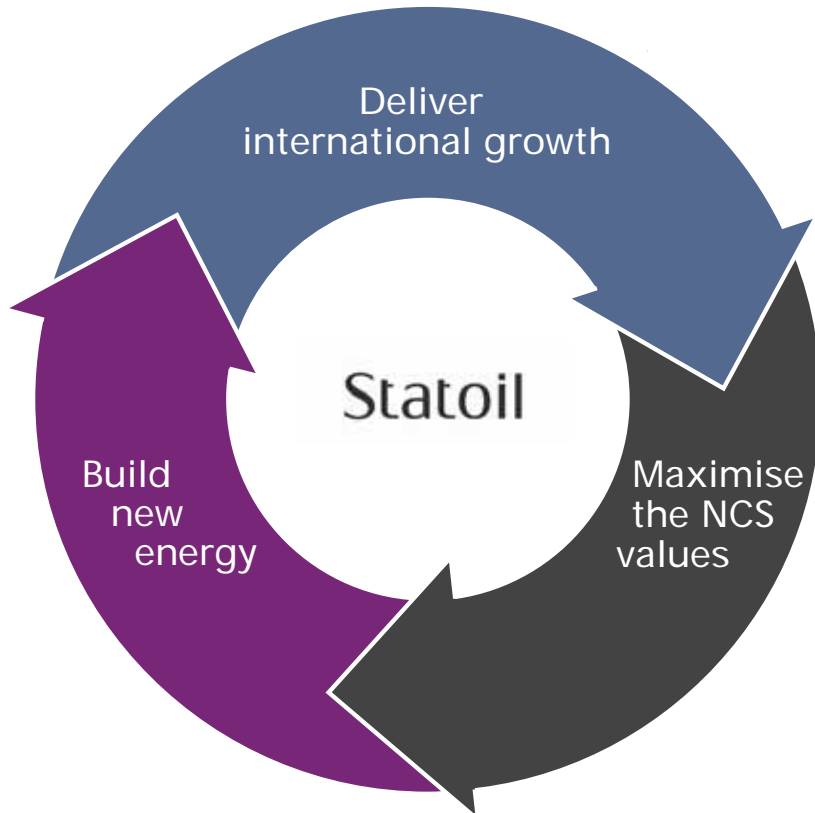
Process Owner – Concept Development & Engineering



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- Statoil going global
- The importance of standardisation
- Standardisation in Statoil – our strategy and vision
- Technical requirements – harmonisation, simplification and globalisation
- Selection of technical and operational requirements in projects
- Way forward (NORSOK, Standard Norge, Expert groups etc.)

# Building growth from a firm strategy



Harsh environments

Deep water

Heavy oil

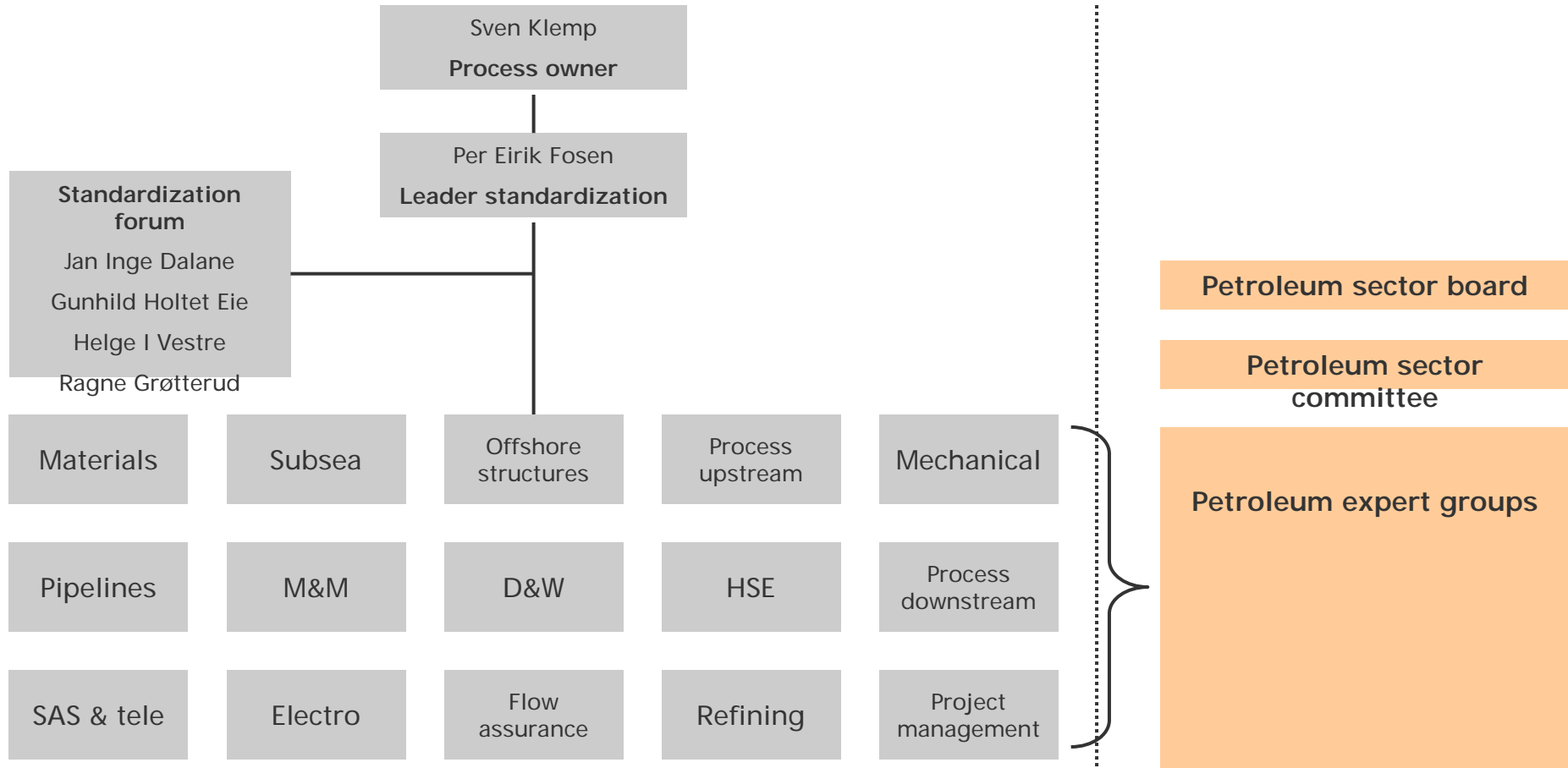
Gas value chains

# Statoil going global

- Statoil is expanding internationally.
- By 2011 30% of our oil production will be outside of the Norwegian Continental Shelf.
- Statoil is now holding operatorship positions in Gulf of Mexico, Canada and Brazil.
- This is a fundamental change for Statoil, building on the strong NCS position.
- Using NORSOK standards in international projects is difficult (unknown to vendors – potential cost and schedule implications).



# Organisation of standardisation work in Statoil



# Why do we standardize ?

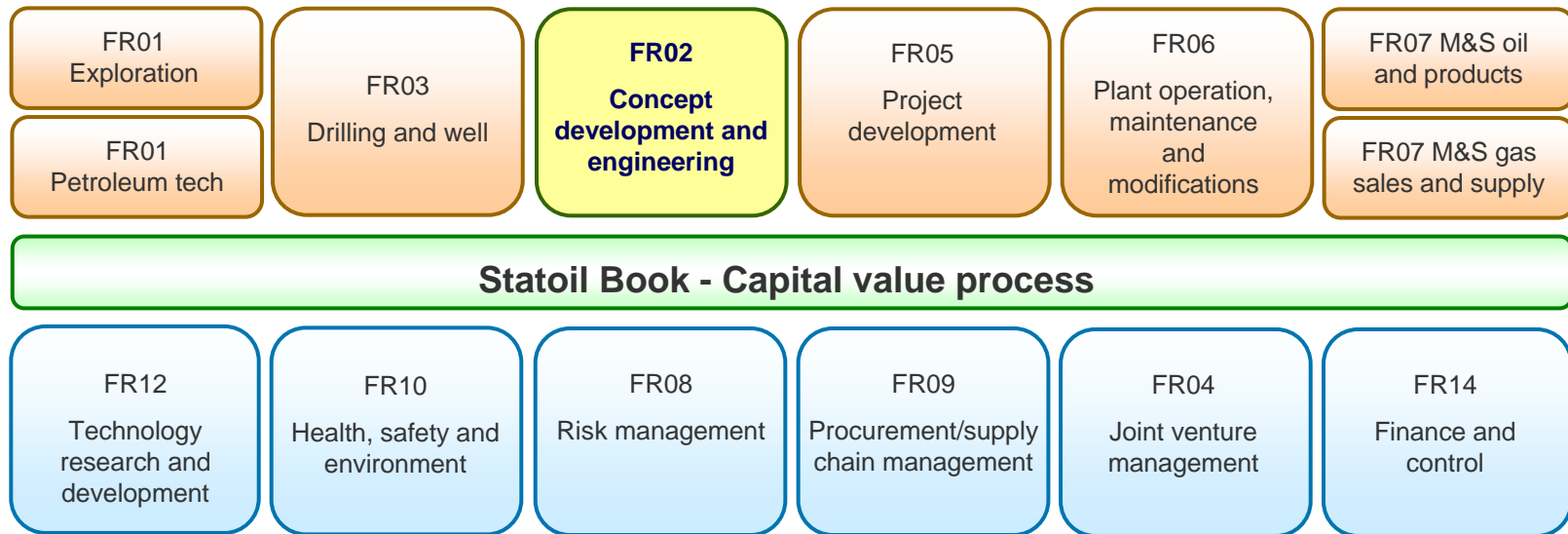
- Statoil needs good standards to achieve our business goals:
  - Standards defines basis requirements for deliveries with respect to functionality, quality and HSE.
  - Standardisation promote efficiency and international competition.
  - Operators, vendors and authorities participate in development of the standards and are all well known with application of the standards.
- Participation in standardisation work is important because it contribute to:
  - Influence standards.
  - Experience transfer and learning.
  - Establish networks.

# Statoil's standardisation strategy and vision

- Vision: Technical requirements for development and operation of Statoil installations and facilities are settled by references to ISO, IEC and other internationally recognized standards .
- Strategy: Statoil supports the strategy of ISO, OGP and Standards Norway, and focus specifically on:
  - active focus and active participation in international standards work in order to influence the resulting standards to reflect Statoil's needs as far as possible.
  - transfer Norsok standards to relevant international standards work, and establish proposals for new international standards where necessary.
  - avoiding development of new Norsok standards where the standardisation needs can be covered by international standards work. Norsok standards should eventually cover additional national Norwegian requirements only.
  - develop and maintain a set of in-house technical requirements in a collection of technical requirement documents (TR) at corporate level to be used by new projects internationally as well as nationally.
  - not using Norsok standards outside NCS due to limited recognition with potential negative consequences.

# Governance system - Function requirements

- Concept Development & Engineering (CD&E) is one out of several core processes in Statoil. The process owner has determined corporate function requirements and prepared governing documentation.
- In business and project development there are many interactions and interfaces between processes; core processes and support processes. Requirements determined by several process owners are applicable for different aspects of the activities. The requirements included in this document are to be applied in combination with requirements determined by other process owners, contained in other documents.



# Work process and technical requirements

**Facilities concept development and engineering (FR02)**

Concept development and engineering in Statoil (WR1623)

**Development and use of standards and company specific requirements (WR0096)**

Technology qualification (WR1622)

Definition of Technical Requirements for Offshore Cost Estimation Classes (TR1244)

Definition of Technical Requirements for Onshore Cost Estimation Classes (TR1245)

## Technical requirements (TR)

Process technology (TR3000)

Civil and structural engineering (TR3060)

Mechanical (TR3010)

Subsea technology (TR3070)

Electro (TR3020)

Pipeline technology (TR3080)

Automation (TR3030)

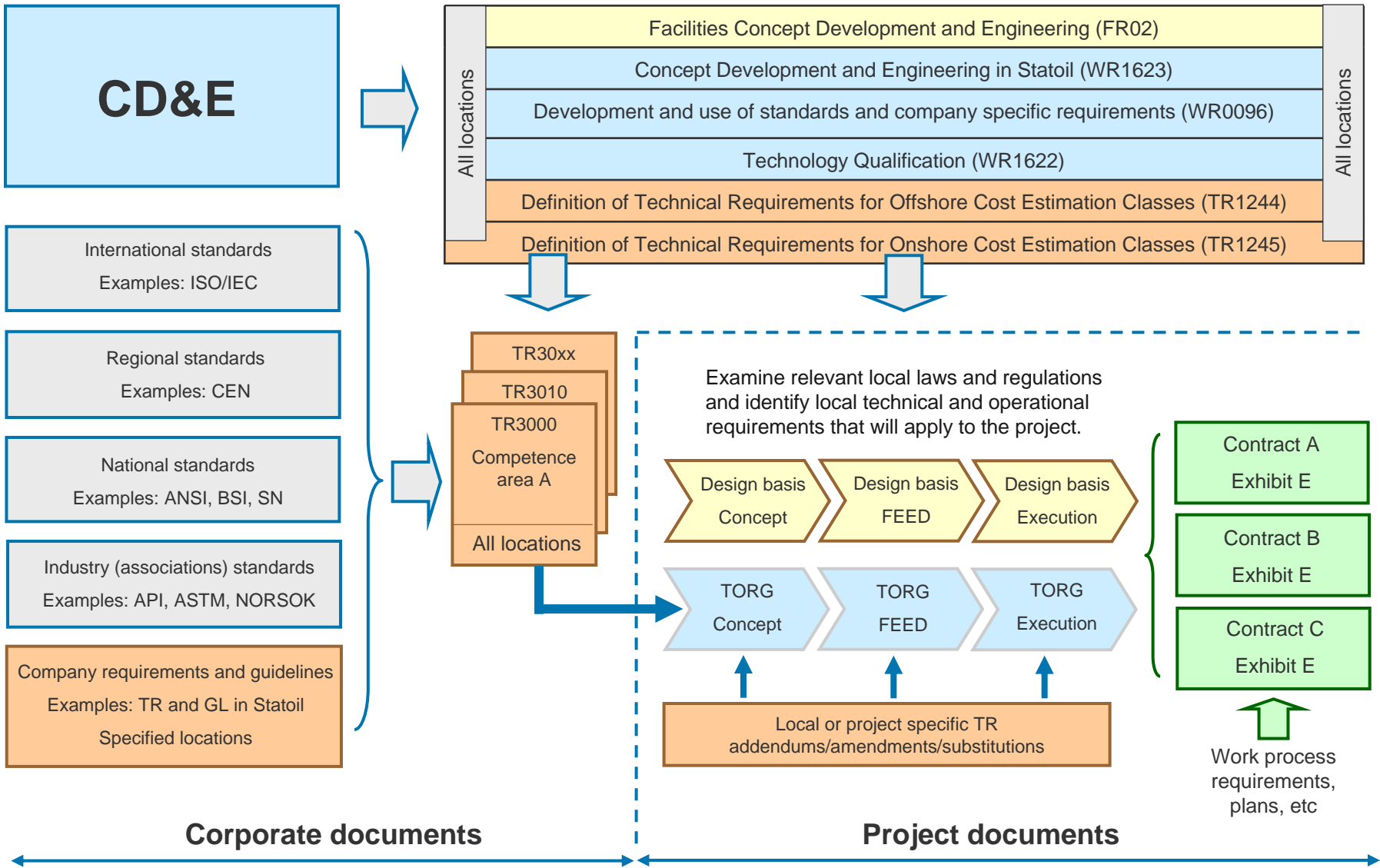
Transport technology (TR3090)

Telecommunication (TR3040)

Materials technology (TR3100)

Platform technology (TR3050)

Life Cycle Information (LCI) (TR3110)

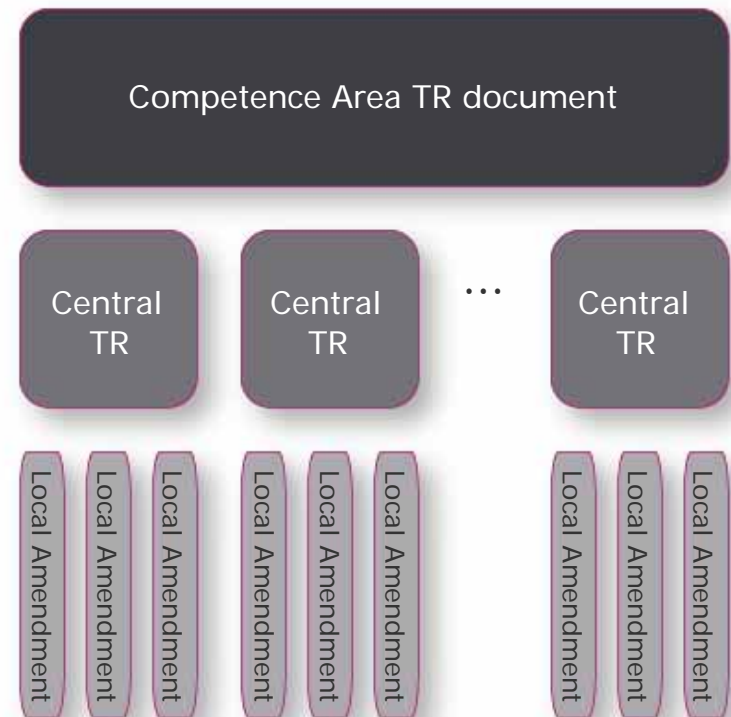


# Harmonisation, simplification and globalisation

## Technical requirement documents

- Owned by competence centers.
- Reference to international standards.
- Number reduced from 1400 to 200.
- To be used by new projects.
- At the NCS a Norsok standard may be a local amendment.

## Structure



# Further improvements through practice

- Use TR documents in international projects.
- Expand area of validity – project by project.
- Learn from local practices - cooperate with the industry.
- Implement training program for discipline engineers.



# Statoil's view on way forward - Norsok standards

- Statoil's strategy is to apply international standards that also cover the needs of NCS.
- Plans for transformation from Norsok to international standards are needed:
  - Develop plans for implementation of available international standards.
  - Both short term (1-2 year) and long term (5 year) plans needed.
  - Perform gap analysis between international standards and Norsok if required.
  - Close cooperation with the authorities important.

# Statoil's view on way forward - Standards Norway

- *“Excellent standards give continuous improvement of Safety, Health, and Environment, and increased added value in the Norwegian petroleum industry”* (the Standards Norway vision).
  - Standards of high quality are still a premise for our functional based regulation regime. Standards are developed in close cooperation between the petroleum industry, employees, and authorities.
  - Standards Norway's coordination of the national and international standardisation work are very important also for the years to come.
- The number of NORSOK standards will be reduced in the future, but the need for standardisation work and high quality standards will not be reduced. There is a need for:
  - Systematic implementation of international standards.
  - Maintenance and improvements of existing standards.
  - Development of new standards for new technology and new application areas.
  - Coordination of international standardisation efforts in order to use the resources we can contribute the most and make a distinct difference within areas of importance to our business.

# Statoil's view on way forward – Expert Groups (EG)

- Continued work of the Expert Groups (EG) is required to meet our vision and strategies.
- The mandate for EG is comprehensive (to ensure standardisation within each discipline area).
- Both national (NORSOK) and international (ISO/IEC) standardisation activities are within their scope.
- Participation in the EGs from oil operators and the oil industry should be strengthened.
- The EGs should challenge the Sector Committee and the Sector Board with respect to the availability of resources.

# Global standards used locally worldwide

- Promote !
- Be compliant !
- Challenge solutions and requirements !



# Thank you

## Standardisering i Statoil

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