FFU Seminar 2008 – StatoilHydro IB-senter Forus

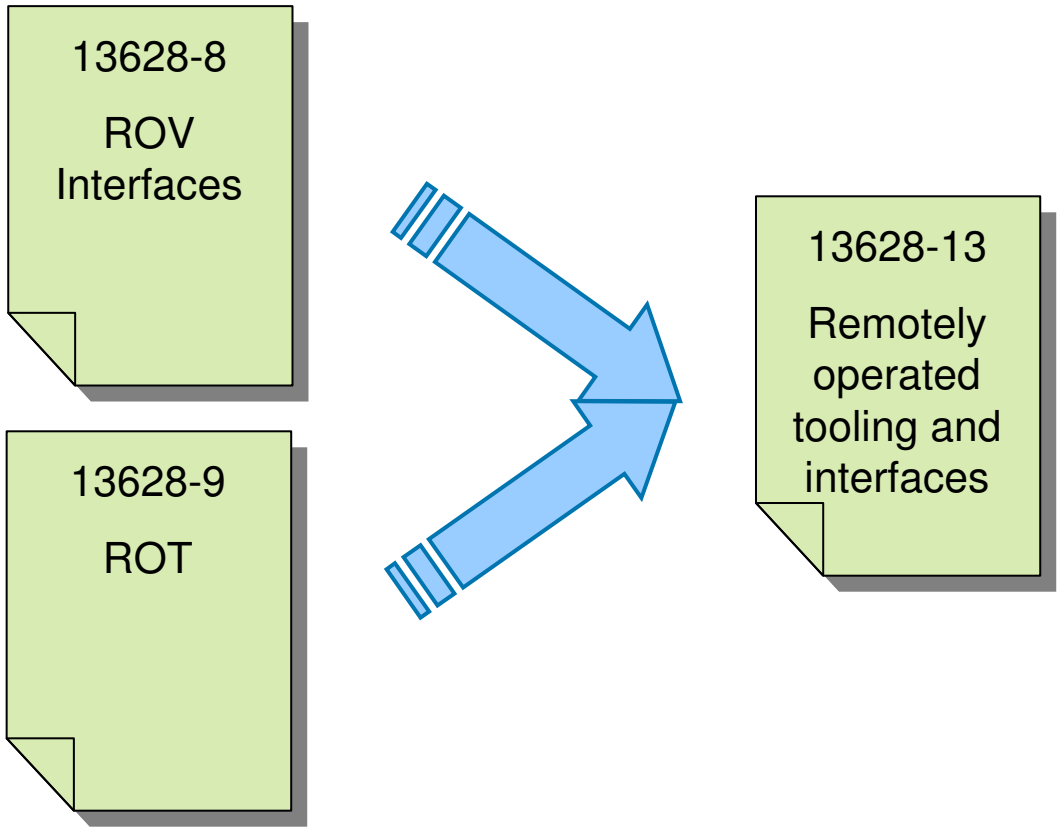
ISO 13628-13 – En ny Intervensjonsstandard

StatoilHydro

Agenda

- Bakgrunn – er det behov for en ny standard?
- Utvikling av en ny standard – samarbeid mellom ISO /API
- Hva er endringene i forhold til tidligere standarder?

Bakgrunn



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Bakgrunn – utviklingstrend
konvertering av eksisterende intervensjonsløsninger

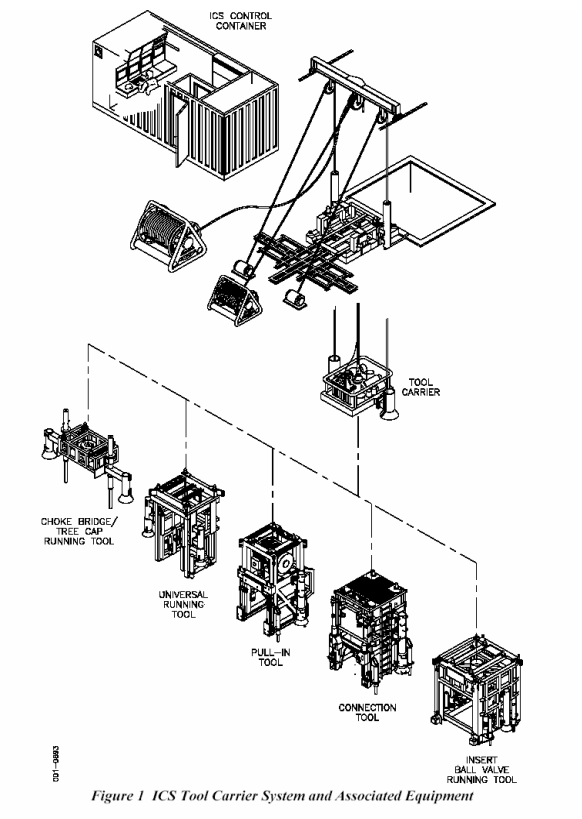
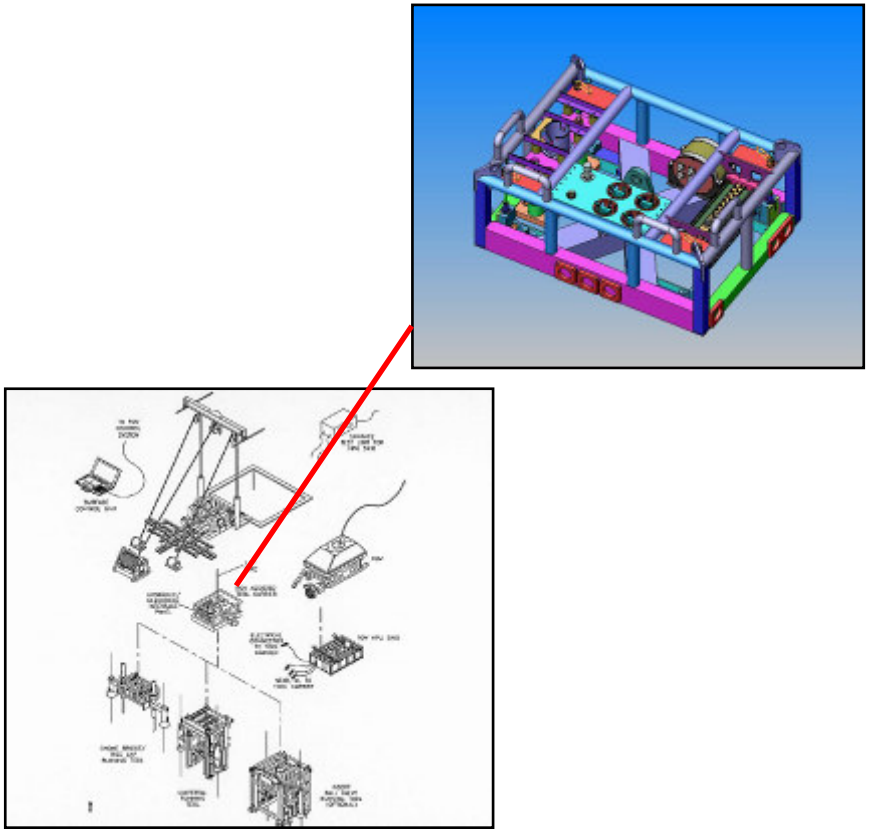


Figure 1 ICS Tool Carrier System and Associated Equipment



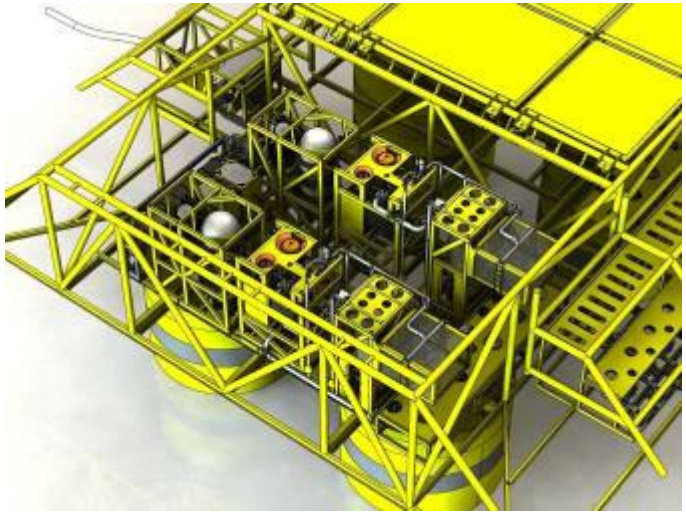
Opprinnelig ROT design med

Dedikert Kontrollsystem

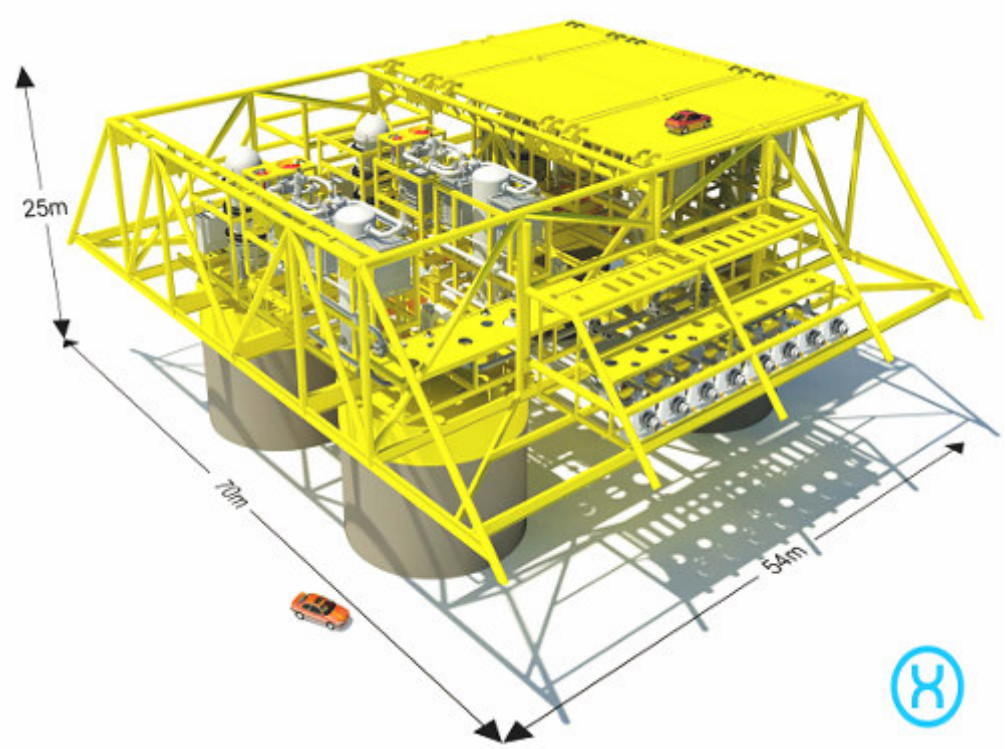
Revidert design med ROV

operert kontrollsystem

Bakgrunn – Nye subseakonsepter



Ormen Lange gasskompressjon



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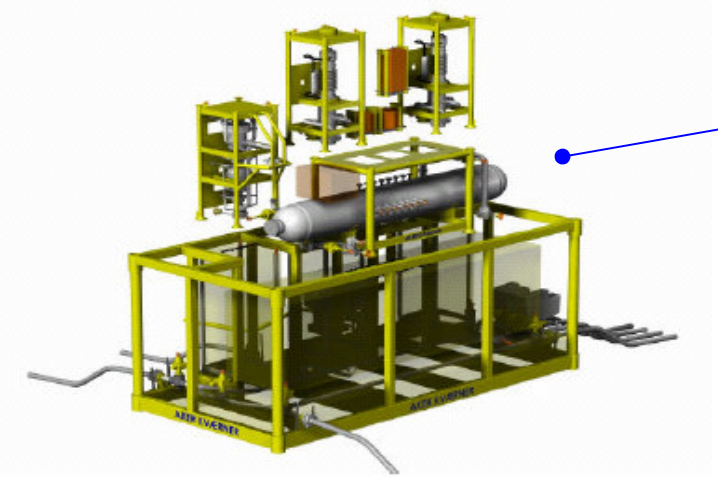
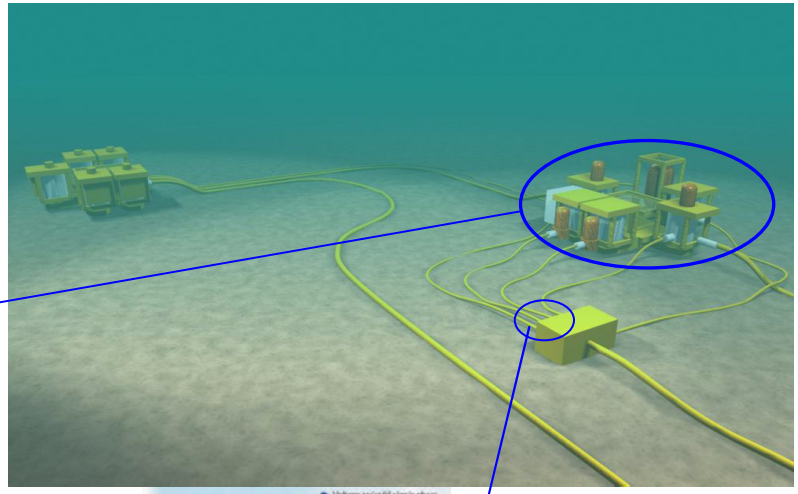
Bakgrunn – Nye subsea moduler og komponenter





Subsea Separation System

- ***New equipment layout***
- ***New subsea modules***

36 kV 1500 A coupler

Bakgrunn – endrede intervensjonsløsninger – tie-in system

GFA Sat. tie-in system

UTIS

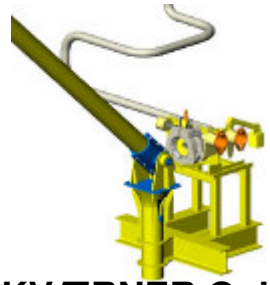
ROT basert

ABB ICARUS

KVÆRNER RTS

FKS ROVCON

ROV basert



KVÆRNER Guide & Hingeover

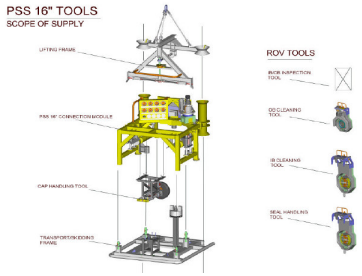


ABB PSS

ROV operert

Typisk sekvens for utvikling av en ISO standard

ISO Typical Project Programme

00.20 Proposal for a new project under review

10.20 New project ballot initiated

20.00 New project registered

20.20 Working Draft (WD) study initiated

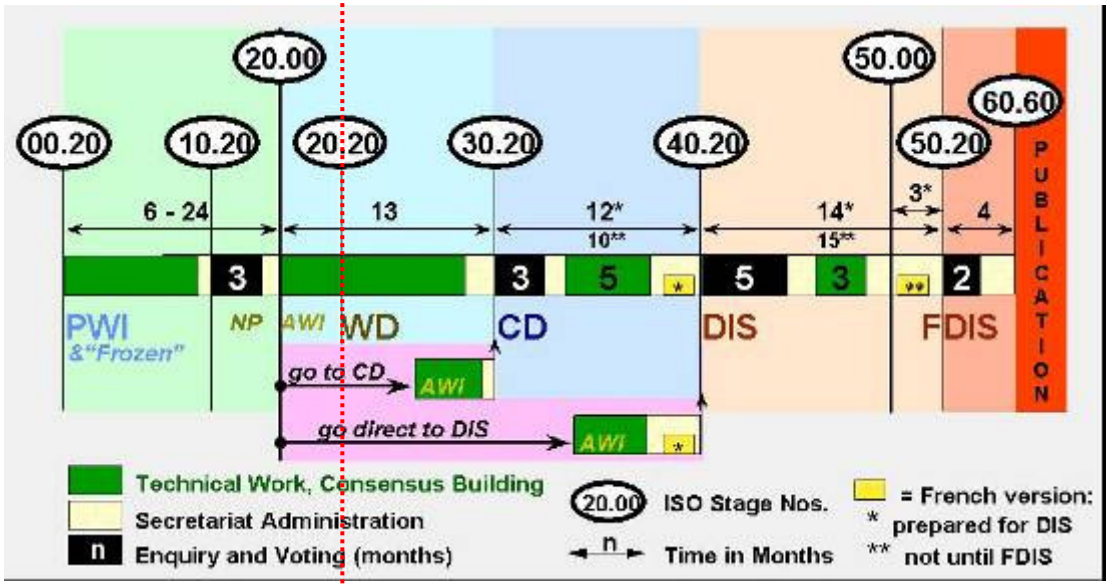
30.20 CD study/ballot initiated

40.20 DIS ballot initiated (5 months)

50.00 FDIS registered for formal approval

50.20 FDIS ballot initiated (2 months)

60.60 IS standard published



Starting point

For 13628-13

ISO/API samarbeid

- Samarbeid i utvikling av ny standard
  - Egne arbeidsgrupper i ISO og API
  - Arbeidsgruppe sammensatt av representanter fra leverandørmarkedet og operatørselskap
  - Nasjonale høringsrunder med nominert ekspertpersonell

Den nye standarden 13628-13 (1)

1 Scope

2 Normative References

3 Terms, definitions and abbreviated terms

4 System Approach

4.1 General

4.2 System Considerations

4.3 Intervention Strategies

4.3.1 General

4.3.2 Subsea Intervention System concept strategy development

4.3.3 Intervention by ROV

4.3.4 Component and Module Intervention

4.3.5 Flowline and Umbilical Tie-in Systems

Den nye standarden 13628-13 (2)

5	Subsea Intervention Systems Design Requirements
5.1	General
5.1.1	Intervention Vessel Interface Information
5.1.2	Tool handling and deployment
5.2	Surface Equipment
5.2.1	General
5.3	Module /Component Replacement Tools
5.4	ROV Intervention Systems
5.4.1	General
5.4.2	ROV Interfaces
5.4.3	ROV mounted skids
5.4.4	ROV Tools

Den nye standarden 13628-13 (3)

5.5	Tie-in & Connection Systems
5.5.1	General
5.5.2	Pull-in tool (PIT)
5.5.3	Connection function
5.5.4	Connector and seal assembly
5.5.5	Hubs, caps and termination heads
5.5.6	Pull-in porches/alignment structures
5.6	Subsea Intervention Tooling Control and Actuation
5.6.1	General
5.6.2	Common requirements control systems
5.6.3	Self contained control systems
5.6.4	Control systems controlled via ROV Control System
5.6.5	Mechanical Actuation

Den nye standarden 13628-13 (4)

6	Materials
6.1	General Requirements
6.2	Selection criteria
7	Validation and Verification
7.1	Design Validation
7.1.1	Design Documentation
7.1.2	Design Reviews
7.1.3	Factory Acceptance Testing
7.2	Design Verification
7.2.1	Qualification Testing
7.2.2	System Integration Testing


Takk for oppmerksomheten!