

FFU Seminar 2004

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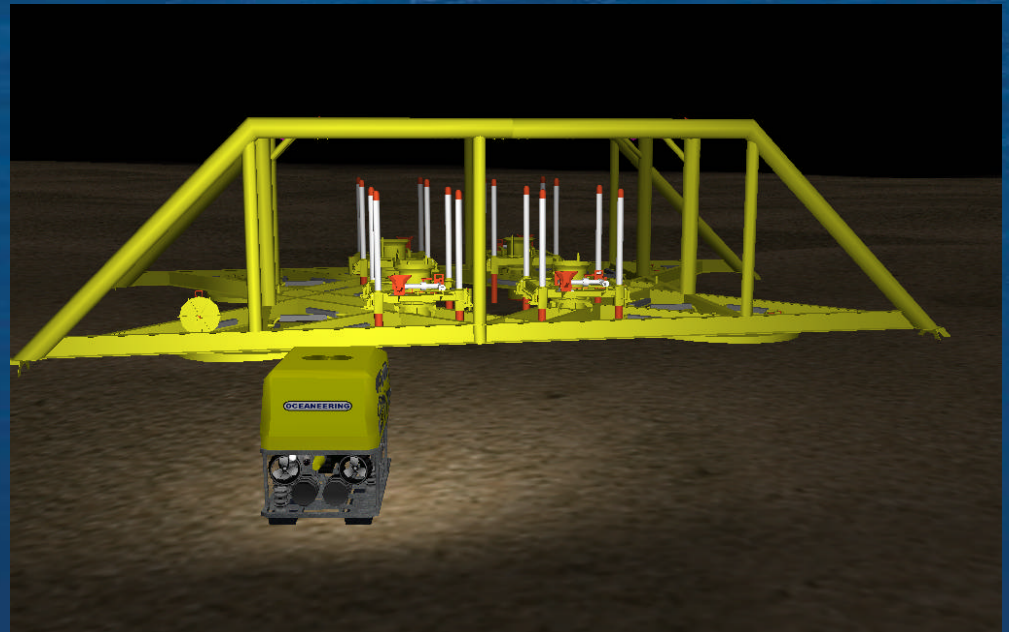
**INTERVENTION
ENGINEERING**

MIMIC

Virtual ROV Support

What does it mean?

Modular
Integrated
Man - machine
Interaction and
Control



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MIMIC

Virtual ROV Support

HISTORY

Ø 1988-90	ROV MMI Study	SI, Oslo
Ø 1991-92	ROV-MIMIC	SI, Oslo
Ø 1994	MIMIC Phase 1	Oceaneering/SAGA
Ø 1995-96	MIMIC Phase 2	Oceaneering/SAGA
Ø 1998-99	MIMIC Test Phase	Oceaneering/Statoil/Hydro
Ø 1996-03	ROV Simulator	Oceaneering
Ø 2003	MIMIC Kristin	Oceaneering/Statoil
Ø 2004	MIMIC Future	

Ø Fully integrated on one or more subsea fields.

MIMIC

Virtual ROV Support

TRAINING Module

ROV Contr.Int.

Simulator SW

Dyn. Param.
Comp. func.

Collision detect.

3D NAV Module

Graphical user
interface

Field Database

Filtering and
AUX Interface

ROV Pos Data

REPORTING Module

Graphical user
interface

Graphic, Video
and Sensor input

Planning tool

Procedures

Technical Library

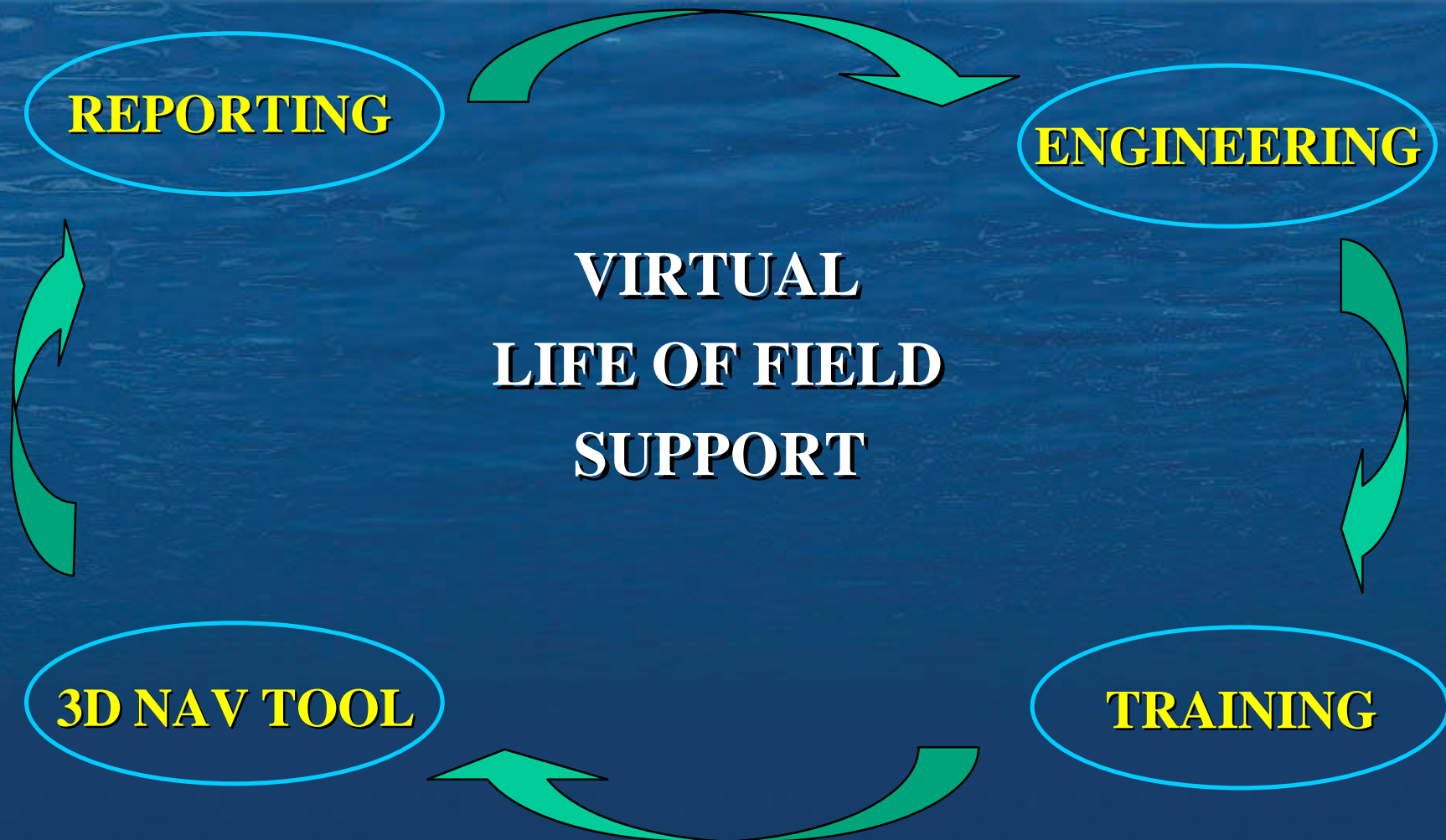
Sea bottom topography

3D Eng. models

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Virtual ROV Support



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MIMIC "Life of Field" Support

ENGINEERING

- Ø Access Verification
- Ø Subsea Structure Optimisation
- Ø Subsea Tooling Optimisation
- Ø Operational workout of Virtual procedures
- Ø Virtual Site Integration Test - SIT
- Ø Virtual Shallow Water Test - SWT

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MIMIC "Life of Field" Support

FMC



ACCESS VERIFICATION

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MIMIC "Life of Field" Support

TRAINING

- Ø ROV Pilot Training
- Ø Test of Procedures
- Ø Improving Procedures
- Ø Training of Operational Offshore Team



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Procedure Replay SubSea



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Procedure Replay SubSea

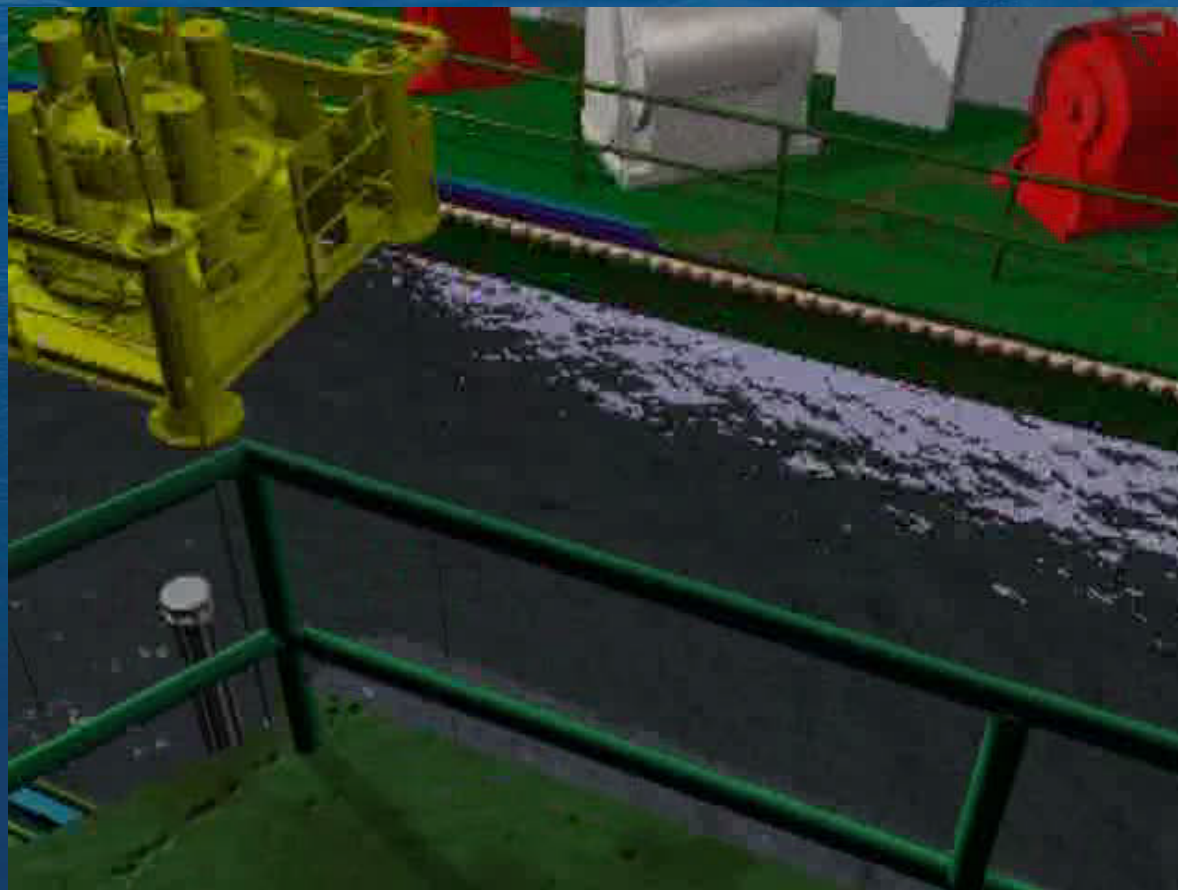


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Procedure Animations Surface



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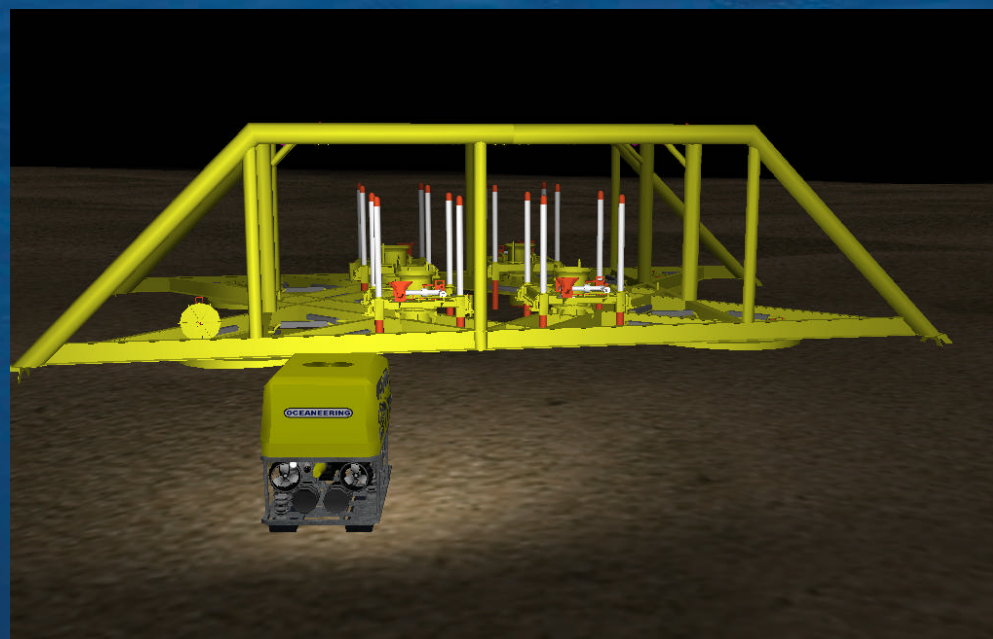
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MIMIC "Life of Field" Support

3D NAVIGATION TOOL

- Ø Safer Operation
- Ø Improved Operation Efficiency
- Ø Improved Operation Quality
- Ø Total Situation Overview – Easier handover
- Ø Onshore Overview

MIMIC Displays



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MIMIC "Life of Field" Support

REPORTING TOOL

- Ø Easy To Operate
- Ø Easy Visual Control
- Ø Online Reporting / Data Always Up To Date
- Ø Attatch Data To Single Components
- Ø Easy Documentation Access
- Ø Easier Transport Of Experience