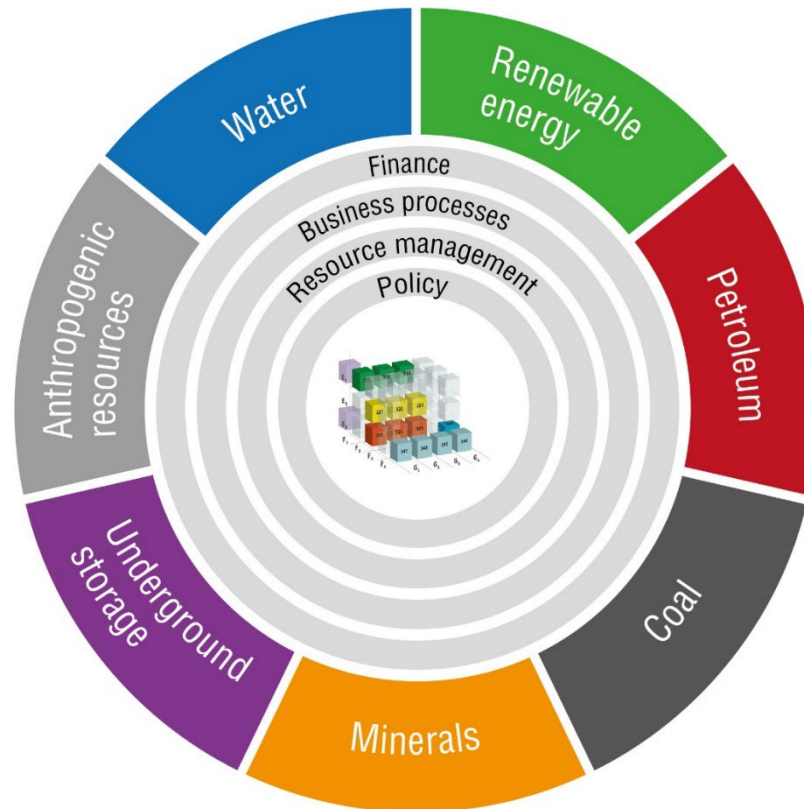




UNFC based resource management

Sigurd Heiberg
Chairperson, Commercial
Applications Working Group

UNFC/UNRMS – current domains of application



Typical Resource Management Decisions

Setting framework conditions that allow industries to deploy their best capabilities for the common good in ways the capital market can finance.



- Emission quotas under the nationally determined contributions
- Legal, regulatory and fiscal conditions
- Strategic and specific environmental and social impact assessments and decisions.
- Strategic access to resources in time and space.
- HSE infrastructures.
- Exploration, development, production and decommissioning
- Soft and hard Infrastructure development, organization and operation.
- Entity and jurisdictional financial management.
- Logistic and industrial development.

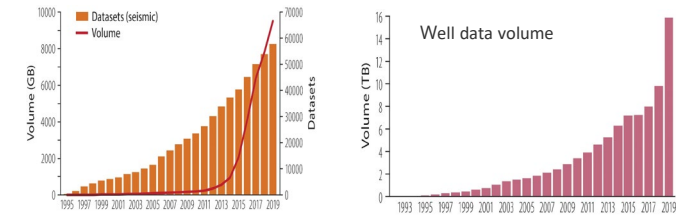
		Confirmed feasibility	Feasibility under evaluation	No evaluation due to lack of data	No projects identified
		F1	F2	F3	F4
ESE Viability confirmed	E1				
ESE Viability under consideration	E2			Not often used	
Production of unused material, too poorly defined or ESE considered unviable	E3				

Good decisions require good information - Diskos – Petrobank

Data submission and online regulated access, common quality assurance, national storage and cyber security.



- Diskos is a national data repository for exploration and production related data shared by both authorities and oil companies.
- Diskos was initiated and designed by NPD and the oil companies in 1995.
- PetroBank, the software and hardware solution, is currently operated by CGG
- All data is kept and backed up in secure storage facilities in Norway.
- Around 50 members and 40 associated members (non-oil companies and Norwegian universities).



Functions

- Tabular and Graphical user interface
- All available seismic- well- and production data
- Data access according to ownership rights or user rights
- Functionality for data trading among member oil companies
- Removes the need for and cost of company storing of data



Gas infrastructure development and optimisation

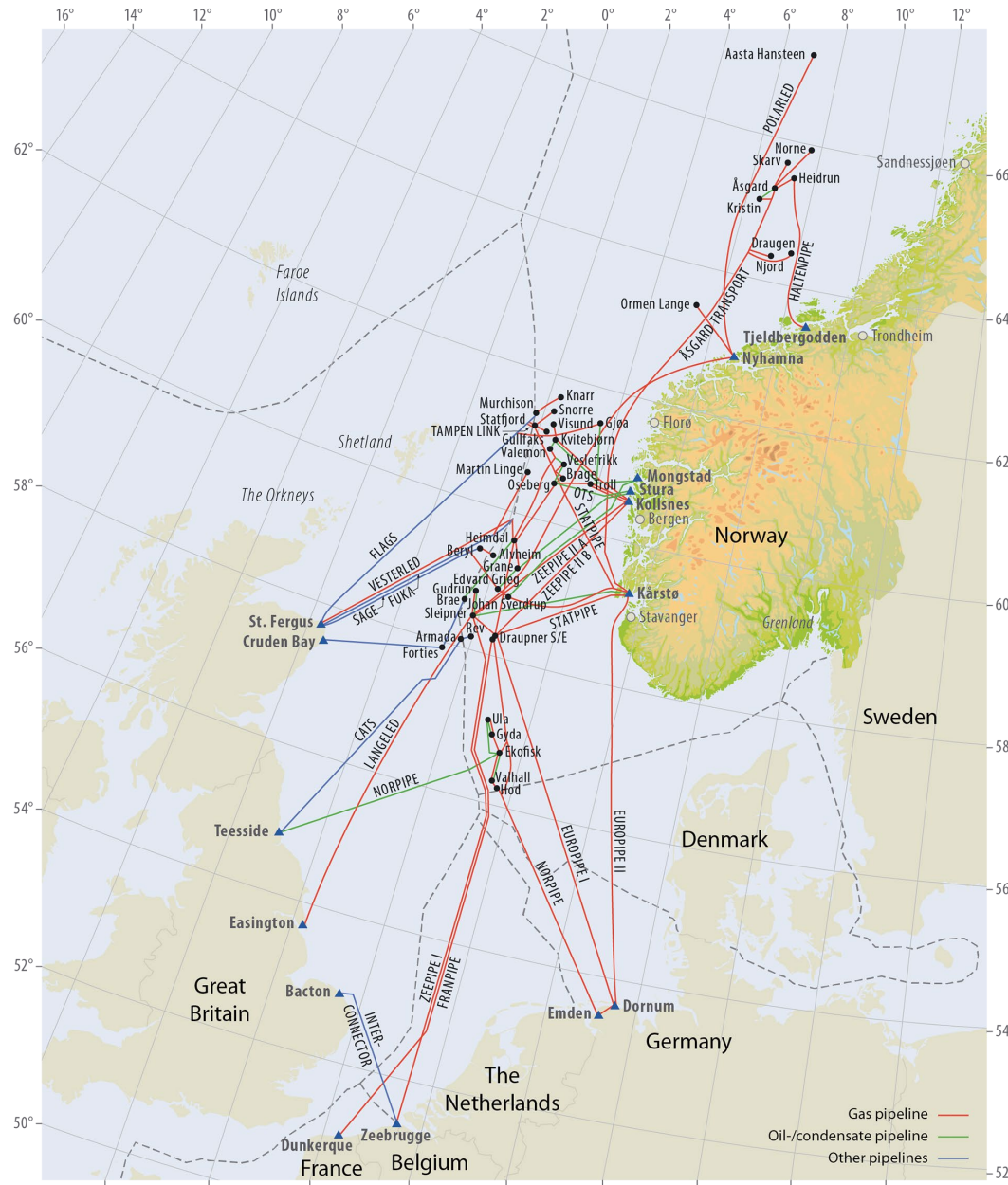
Nyhamna terminal. Source: <https://www.shell.com/about-us/major-projects/ormen-lange/ormen-lange-overview.html>



Tjeldbergodden. Equinor photo: <https://communicationtoolbox.equinor.com/brandcenter/en/equinor/component/default/42130>.



Sture terminal, Equinor photo: <https://communicationtoolbox.equinor.com/brandcenter/en/equinor/component/default/42130>



National Management of Petroleum Resources Petronas
November 2021



The Mongstad refinery
Equinor photo: <https://communicationtoolbox.equinor.com/brandcenter/en/equinor/component/default/42130>



Picture of the gas processing plant at Kollsnes (Photo: Øyvind Sætre - Gassco)



Picture of the gas and condensate processing plant at Kårstø (Photo: Øyvind Sætre - Gassco)

Relevant metrics for the NCS

Operating companies submit data and relevant forecasts for their respective operated fields, discoveries, transportation- and utilization facilities



- **Quantities**

- In-place and recoverable volumes
- Low, Base and High estimates

- **Profiles**

- **Production sales profiles**
 - Oil, Gas, NGL and Condensate,
- **Costs**
 - Investments, Operating cost, Tariff expenditures

- **Environmental data**

- **Emissions** (CO₂, NO_x, nmVOC, CH₄)
- **Background data** (Water production, Injection profiles)

- **Other data**

- Project attributes for contingent resources, Development concepts, Number of production wells to be drilled, etc.....

		Confirmed feasibility	Feasibility under evaluation	No evaluation due to lack of data	No projects identified
		F1	F2	F3	F4
ESE Viability confirmed	E1			Not often used	
ESE Viability under consideration	E2				
Production of unused material, too poorly defined or ESE considered unviable	E3				

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How UNFC works



		Confirmed feasibility	Feasibility under evaluation	No evaluation due to lack of data	No projects identified
		F1	F2	F3	F4
ESE Viability confirmed	E1	E1,F1		Not often used	
ESE Viability under consideration	E2				
Production of unused material, too poorly defined or ESE considered unviable	E3				

UNFC class E1,F1,G

UNFC class 111

Category	Definition
E1	Development and operation are confirmed to be environmentally-socially-economically viable.

Category	Definition
F1	Technical feasibility of a development project has been confirmed.

Design Structure Matrix Methods for managing individual projects and stocks and flows through integrated project portfolios in realistic circular economic processes



		Alternate policies										Revision		
		Sold or used	Produced and not used	E1F1	E1F2	E2F1	E2F2	E3F1	E3F2	E3F3	E3F4			
		Closing balance after policy changes												
Current policies	Sales production			Not applicable										
	Non-sales production			Not applicable										
	Opening balance	E1F1												
		E1F2												
		E2F1												
		E2F2												
		E3F1												
		E3F2												
		E3F3												
E3F4														

		Closing balance										Revision		
		Sold or used	Produced and not used	E1F1	E1F2	E2F1	E2F2	E3F1	E3F2	E3F3	E3F4			
		Closing balance after policy changes												
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		E2F1												
		E2F2												
		E3F1												
		E3F2												
		E3F3												
E3F4														

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Thank you!

Name Surname

Position

UNECE

Date __ | __ | 2021, Place

Second UNRMS Workshop, 26 November 2021, 15:00 – 17:00 CET

