



NORWEGIAN PETROLEUM
DIRECTORATE



Potential Application of the UNFC-2009 in Government Resource Management

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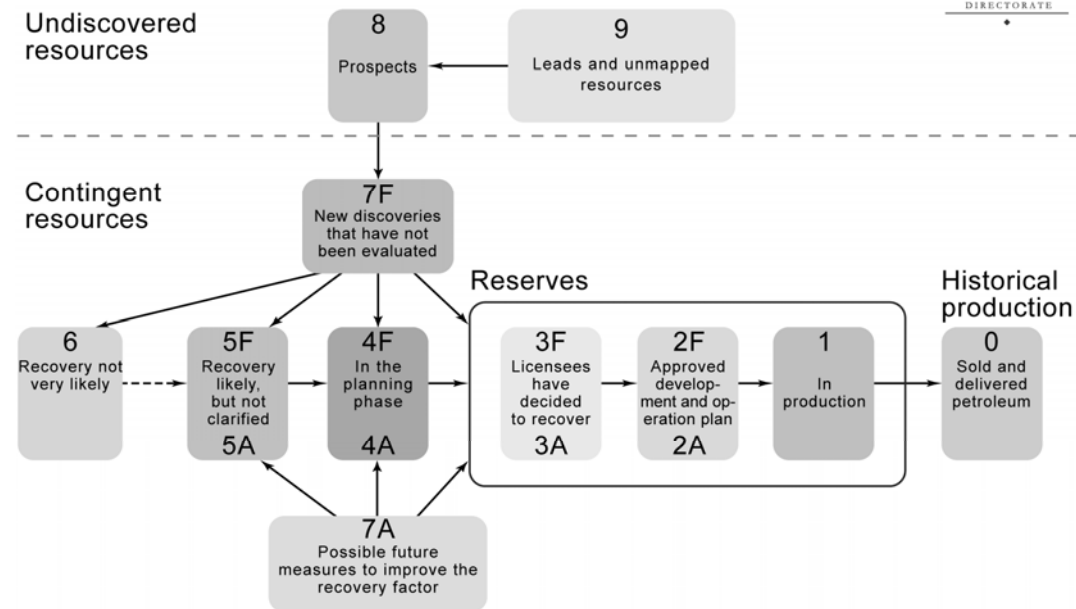
Director

Norwegian Petroleum Directorate

Genève 26. March 2009

Requirements for a classification system

- ◆ Must handle the total resources as well as individual projects
- ◆ Reflect legal framework and decision points
- ◆ Build upon project maturity
 - ◆ Ability to combine the volume estimates of each project with other relevant information/data
- ◆ Track project maturation



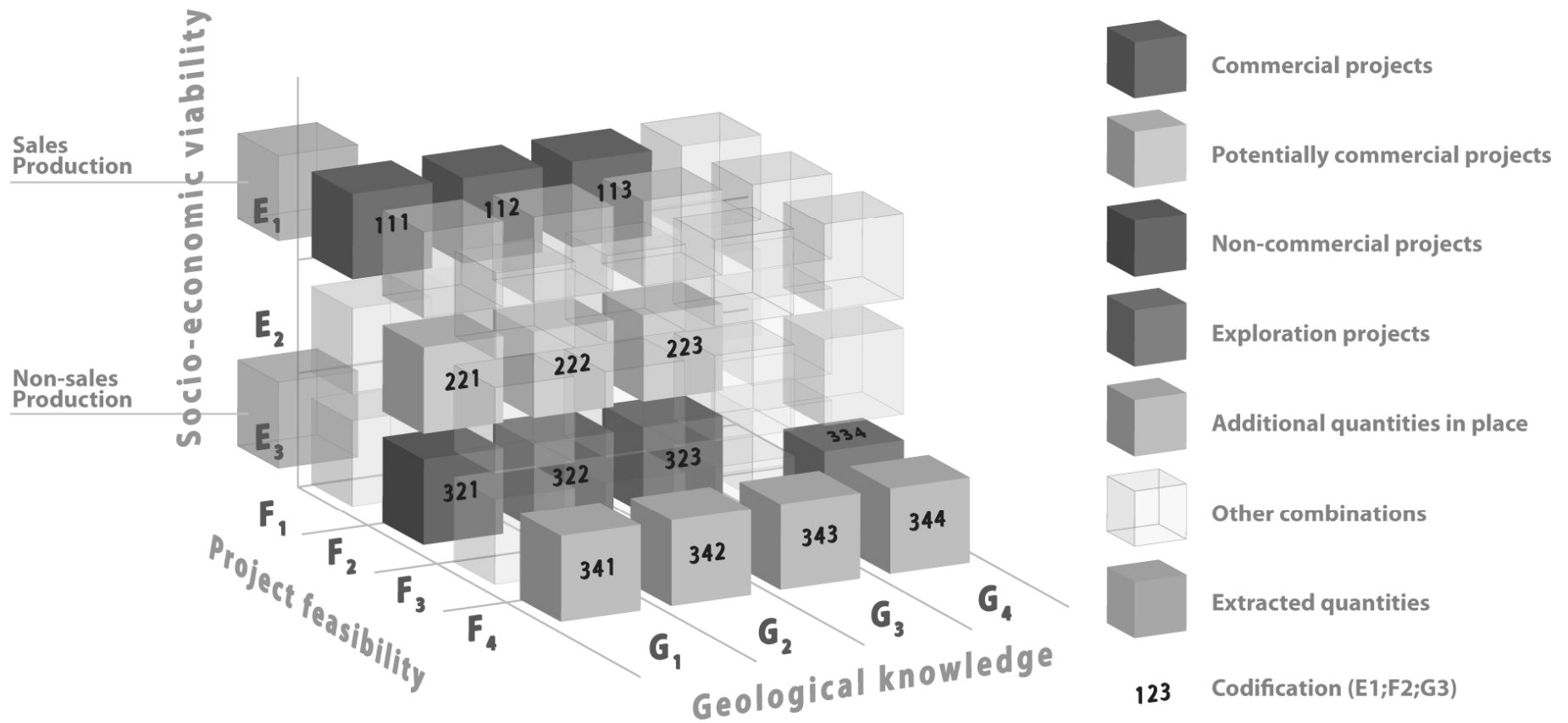
Classification system for petroleum resources at the Norwegian continental shelf

Important elements and use of NPD's classification system



- ◆ Projects based resource classes
- ◆ Annual reporting to NPD based upon the system
 - ◆ Volumes (in-place and recoverable)
 - ◆ Profiles (production, investments, operating costs, emissions,...)
 - ◆ More than 340 datasets from the companies including more than 740 projects (which can be new projects in old fields, or development of new fields)
 - ◆ NPD also develops own datasets
 - ◆ Consistent dataset

UNFC - 2009



Benefits from the UNFC system

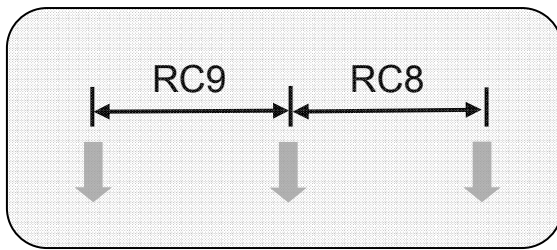
- ◆ Common language for resource reporting
- ◆ Flexible system
 - ◆ Can be used and adapted to various resources and conditions
- ◆ E-axis allows greater granularity on economic and social matters
 - ◆ compared to e.g. NPD- and SPE-system
- ◆ Make comparison easier and statistic more reliable

Business (Project) Decision Gates in Exploration and Production, NPD classification

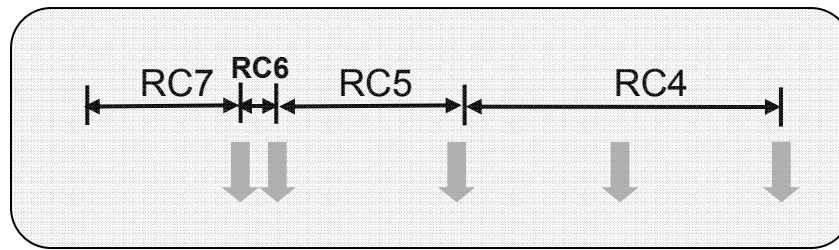


NPD resource classes / categories

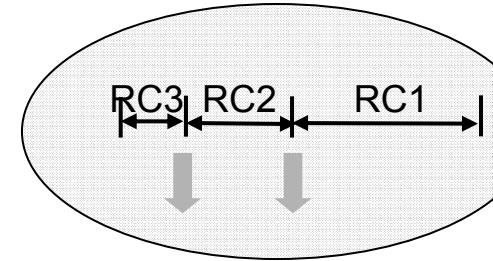
Undiscovered resources



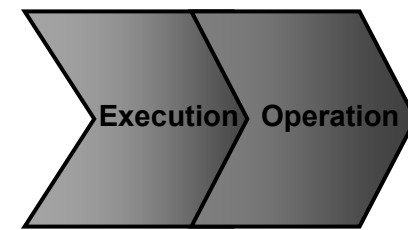
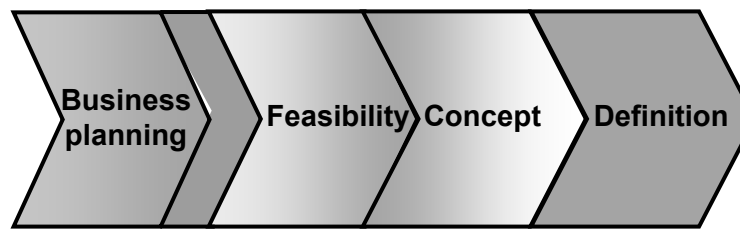
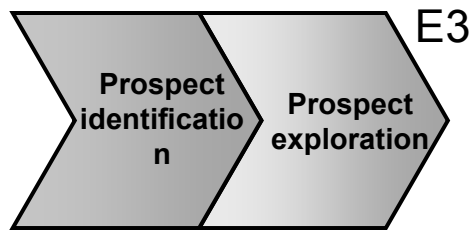
Contingent resources



Reserves



Project phases



UNFC Classes

Exploration Projects

Potential commercial and non-commercial projects

Commercial projects

NPD Aggregated Resource Account

Mapped to UNFC

(Base numbers, uncertainty not shown)



UNFC - 2009					NPD as of 2008	NPD 2001		
Sales Production					M ³ o.e.	Sales Production		
					5055			
Non-sales production								
Class	Sub-class	E	F	G		Category		Class
Commercial Projects	On production	1	1,1	1, 2, 3	2634	In production	1	Reserves
	Approved for Development	1	1,2	1, 2, 3	490	Approved PDO	2 F/A	
	Justified for Development	1	1,3	1, 2, 3	283	Licencees decided to recover	3 F/A	
Potentially Commercial Projects	Development pending	2	2,1	1, 2, 3	561	In the planning phase	4 F/A	Contingent resources
	Development on hold	2	2,2	1, 2, 3	590	Recovery likely but undecided	5 F/A	
Non-Commercial Projects	Development unclarified	3,2	2,2	1, 2, 3	418	Not yet evaluated	7 F/A	
	Development not Viable	3,3	2,3	1, 2, 3	N/A	Recovery not very likely	6	
Additional quantities in place		3,3	4	1, 2, 3	N/A			
Exploration Projects	No sub-classes defined	3,2	3	4	3400	Prospect	8	Undiscovered resources
						Lead and Play	9	
Additional quantities in place		3,3	4	4	N/A			

Conclusions

- ◆ UNFC provides for a common language for classification and reporting
- ◆ Three dimensions seems more complicated, but ensure good flexibility
- ◆ A common system make comparison easier and statistic more reliable
- ◆ UNFC is a framework system.
 - ◆ Specifications and guidelines need to be worked out to make UNFC suitable for use under different conditions.
 - ◆ The system needs to be used and tested, and then improved based on experience