

NPD's Resource Classification System and Reporting of Resources etc.

Presentation for Tekna Olje og Gass
December 2021

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Why resource classification ?

- How much oil and gas are there on the NCS ?
 - In place ?
 - Recoverable ?
 - Produced ?
 - In fields (developed) ?
 - Discovered ?
 - ??

Outline

- Development in resource classification
- The NPD's resource classification system
- UN classification
- Reporting for the revised national budget

Milestones in Development of Resource classification



- SPE 1988 Definitions of Oil and Gas Reserves
- NPD 1994 Fields, Discoveries and Undiscovered Resources
- NPD 1997 Fields and Discoveries can have Resources (Reserves) in several Resource Classes (different **Projects**)
 - First introduction of the term **Project**
- NPD 2001 Resource Classes and **Project** Status Categories
- UNFC 2004 First Framework Classification for Minerals and Fossil Fuels
- SPE 2007 Petroleum Resources Management System (PRMS)
 - First use of the term **Project** by SPE

Milestones in Development of Resource classification (2)

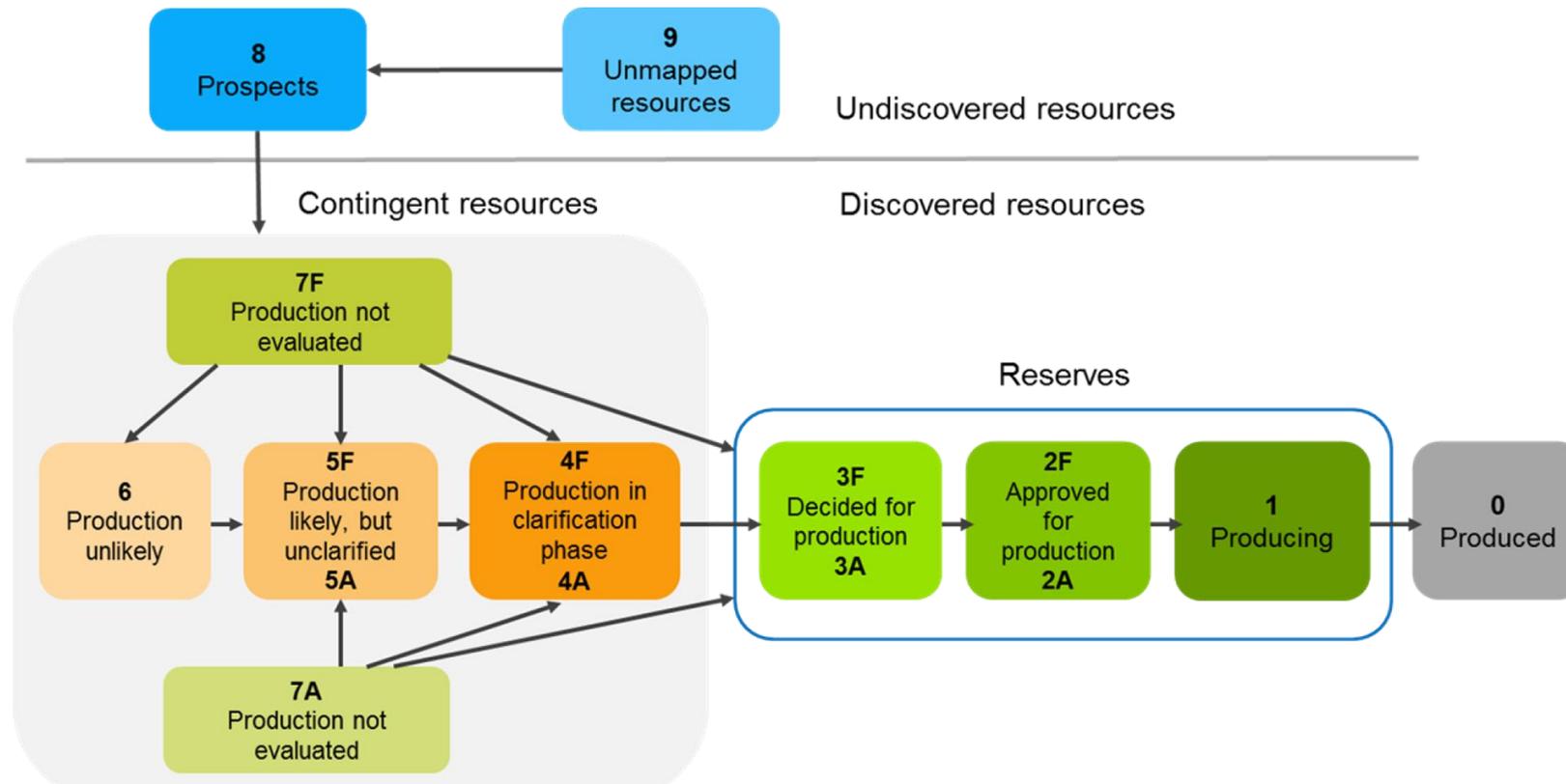


- UNFC 2009 Revised Framework Classification
 - Also being developed for Renewables and CO₂ storage
- SPE 2011 Guidelines for Application of the Petroleum Resources Management System
 - Definition of term **Project**
- **NPD 2016**
 - Harmonize the description with terminology used in UNFC (and SPE PRMS)
- SPE 2018 Minor updates
- UNFC 2019
 - Updated version of UNFC is intended to satisfy the requirements of **different resource sectors and applications**
 - Is fully aligned to the sustainable resource management called for by the **2030 Agenda for Sustainable Development.**

The update in NPD 2016 (compared to 2001)

- The new system has only minor changes compared to the previous one as all “boxes” are the same
- The changes are mainly language improvements, including new names for some resource classes (boxes)
- The objective of the update is
 - to harmonize the description with terminology used elsewhere
 - clarify the relation to decision milestones used for project maturation
 - attempt, as much as possible, to use the same terminology as in international systems like UNFC and SPE PRMS

Schematic overview of the NPD's classification system



Definition of a project

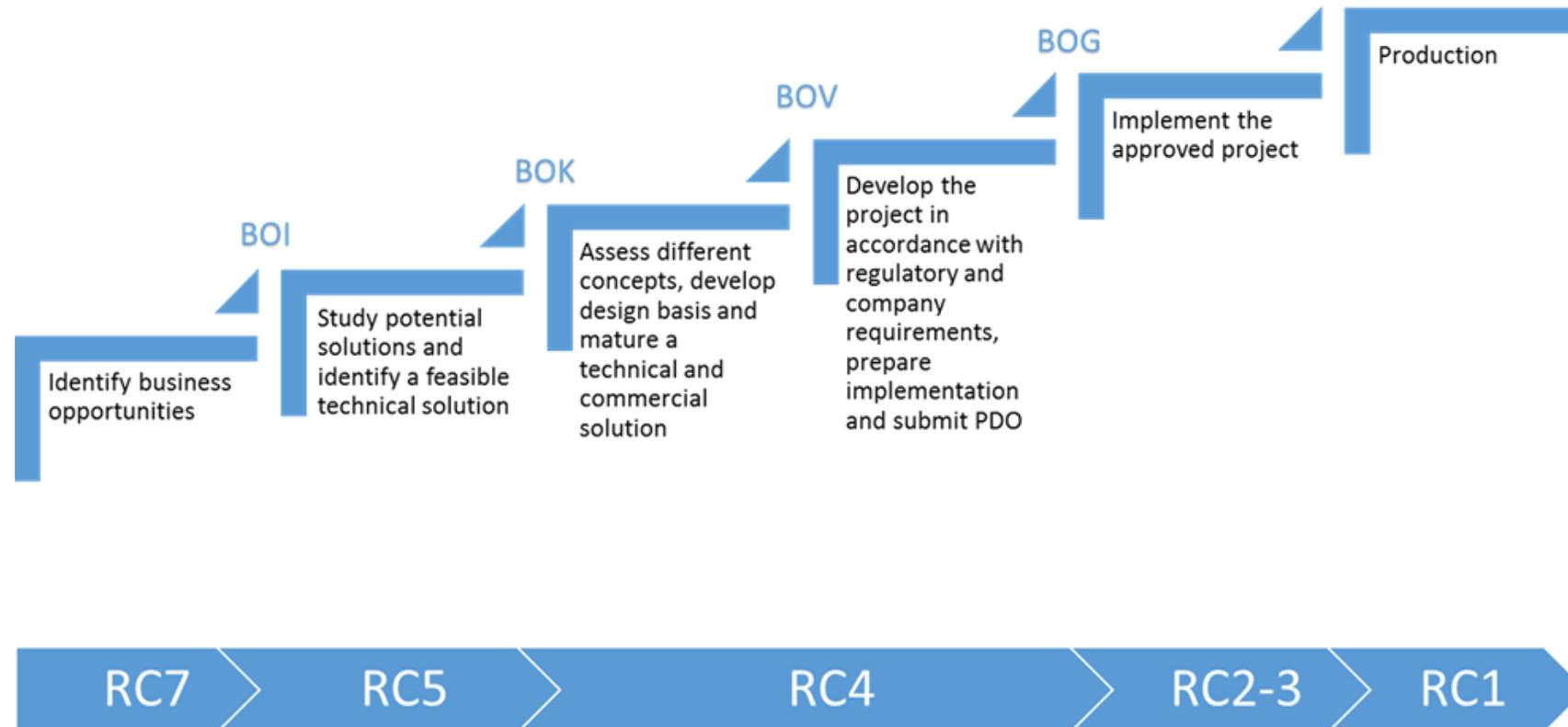
- A key term in the classification system is ‘project’. The NPD does not have an inherent definition of the term, but applies the PRMS’ definition in this context:
- ***A project represents the link between the petroleum accumulation and the decision-making process, including budget allocation***
- *A project may, for example, constitute the development of a single reservoir or field, or an incremental development in a producing field, or the integrated development of a group of several fields and associated facilities with a common ownership*
- *In general, an individual project will represent a specific maturity level at which a decision is made on whether or not to proceed (i.e., spend money), and there should be an associated range of estimated recoverable resources for that project.*

Decision milestones in the maturation of a project



- **Decision to initiate project - BOI:** Start of feasibility studies. (DG0)
- **Decision to concretise - BOK :** The licensees have identified at least one technically and financially feasible concept that provides a basis for commencing studies that lead to concept selection (DG1)
- **Decision to continue - BOV:** The licensees have selected a concept and make a decision to continue and initiate further studies that lead to a decision to implement (DG3)
- **Decision to implement – BOG:** The licensees make an investment decision which results in the submission of a PDO or PIO (DG4)

The connection between project maturation and resource classes in NPD 2016

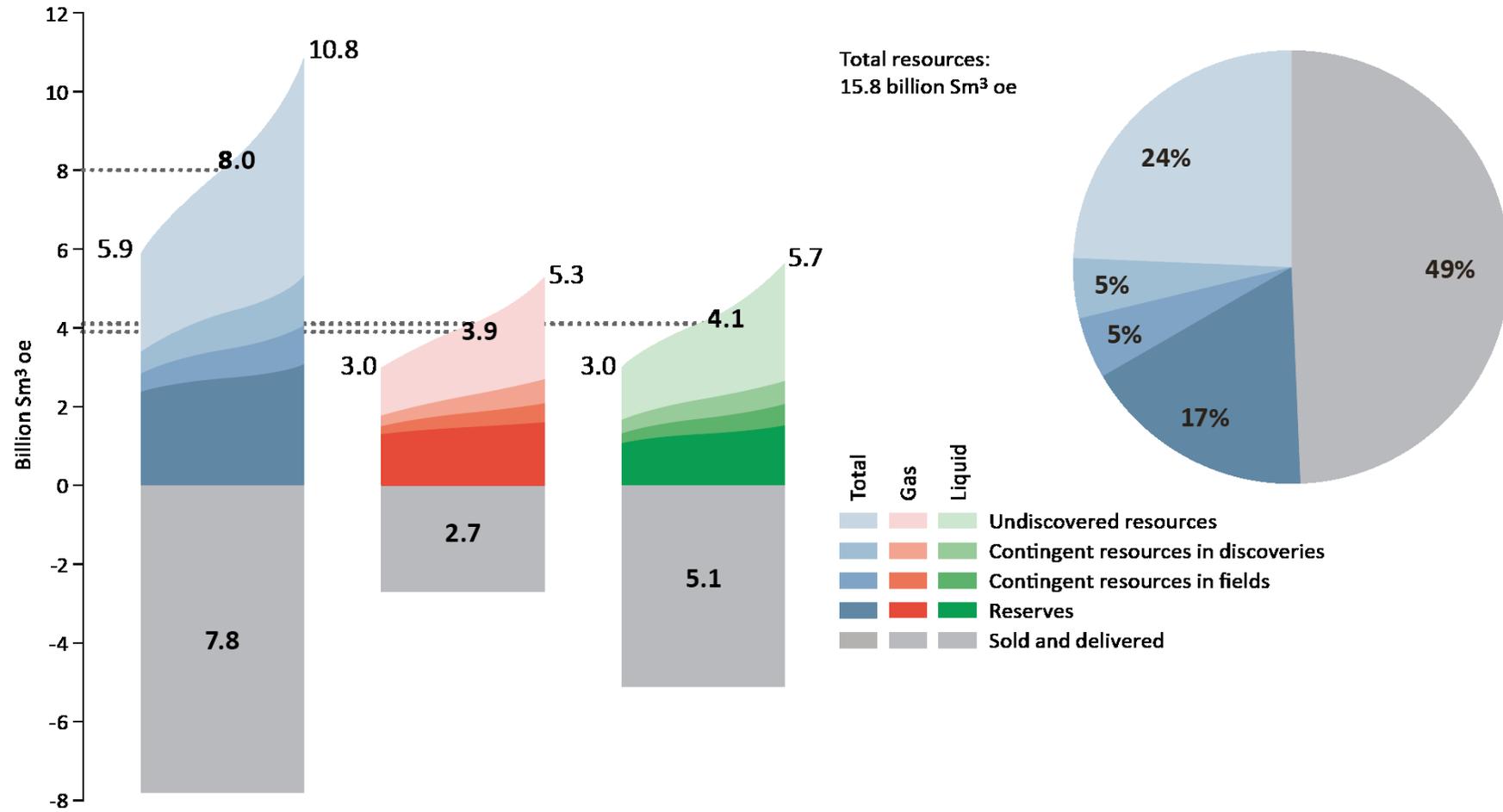


NPD resource classification system



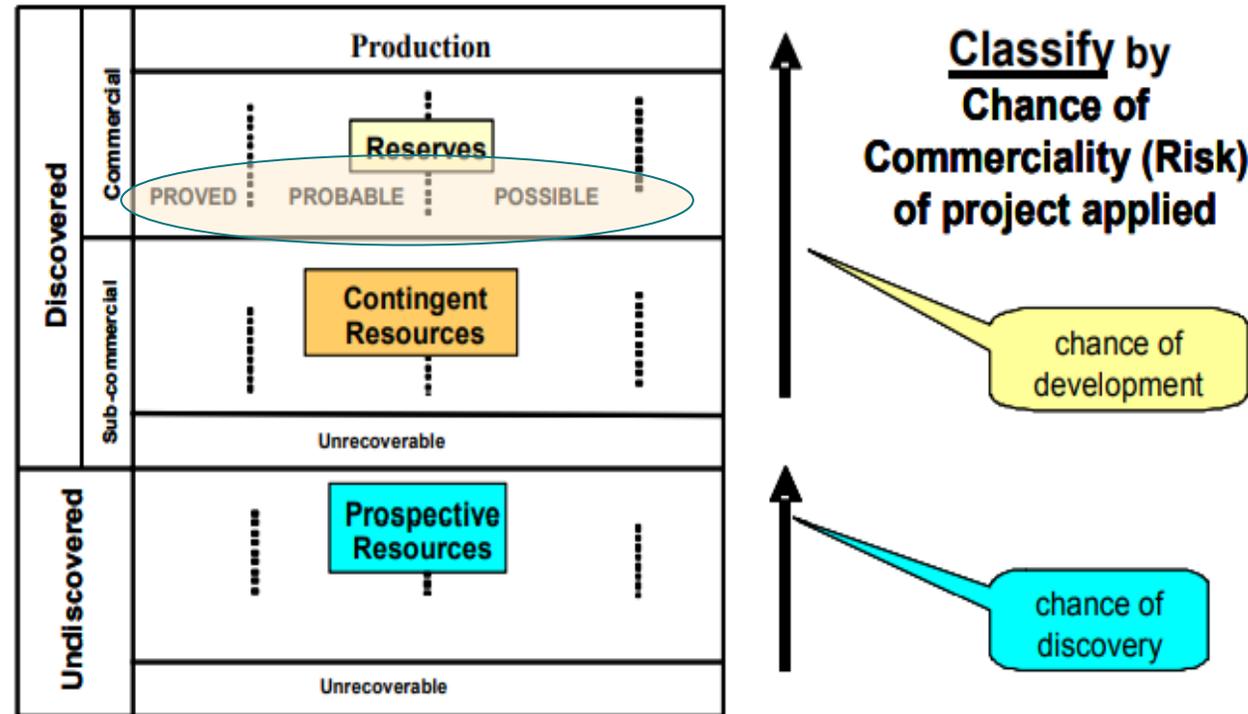
Class	Resource Class (Sub-class)	Resource Class Code	Project category	Uncertainty category
Reserves	Produced	RC0		
	In production	RC1		L, B, H
	Approved for production	RC2	F, A	L, B, H
	Decided for production	RC3	F, A	L, B, H
Contingent resources	Production in clarification phase	RC4	F, A	L, B, H
	Production likely, but not clarified	RC5	F, A	L, B, H
	Production unlikely	RC6		L, B, H
	Production not evaluated	RC7	F, A	L, B, H
Undiscovered resources	Prospects	RC8		L, B, H
	Unmapped resources	RC9		L, B, H

Petroleum resources on NCS including uncertainty as of 31 December 2020



SPE Petroleum Resources Management System

- [Petroleum Reserves and Resources Definitions \(spe.org\)](https://www.spe.org)



SPE PRMS versus NPD

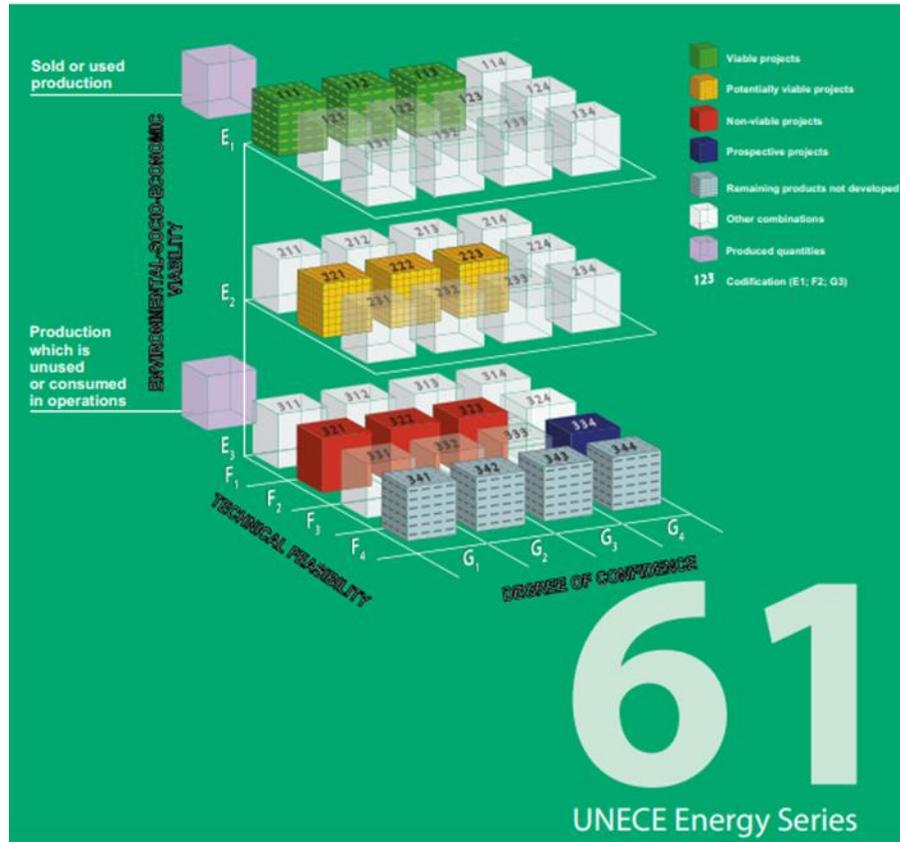


SPE PRMS 2007	
	Project Maturity sub-classes
Production	
RESERVES	On Production
	Approved for Development
	Justified for Development
CONTINGENT RESOURCES	Development Pending
	Development unclarified or on Hold
	Development not Viable
Unrecoverable	
PROSPECTIVE RESOURCES	Prospect
	Lead
	Play

NPD 2001		
Resource class	Project status category	
Production	S	Sold and delivered
RESERVES	1	In production
	2 F/A	Approved PDO
	3 F/A	Licencees have decided to recover
CONTINGENT RESOURCES	4 F/A	In the planning phase
	5 F/A	Recovery likely but undecided
	7 F/A	Not yet evaluated
	6	Recovery not very likely
UNDISCOVERED RESOURCES	8	Prospect
	9	Lead and Play

United Nations Framework Classification for Resources

Update 2019



UNFC

UN's framework
Classification

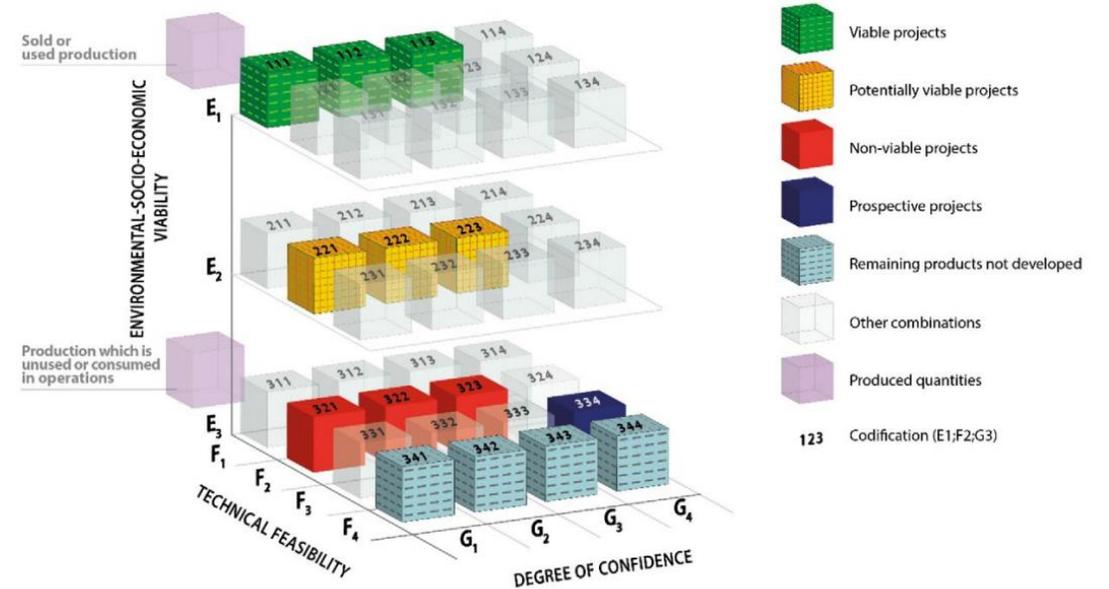
UNFC

The United Nations Framework Classification for Resources (UNFC) is developed for

- countries
- companies
- financial institutions
- and other stakeholders

[UNFC and Sustainable Resource Management | UNECE](#)

FIGURE 1
UNFC Categories and Examples of Classes



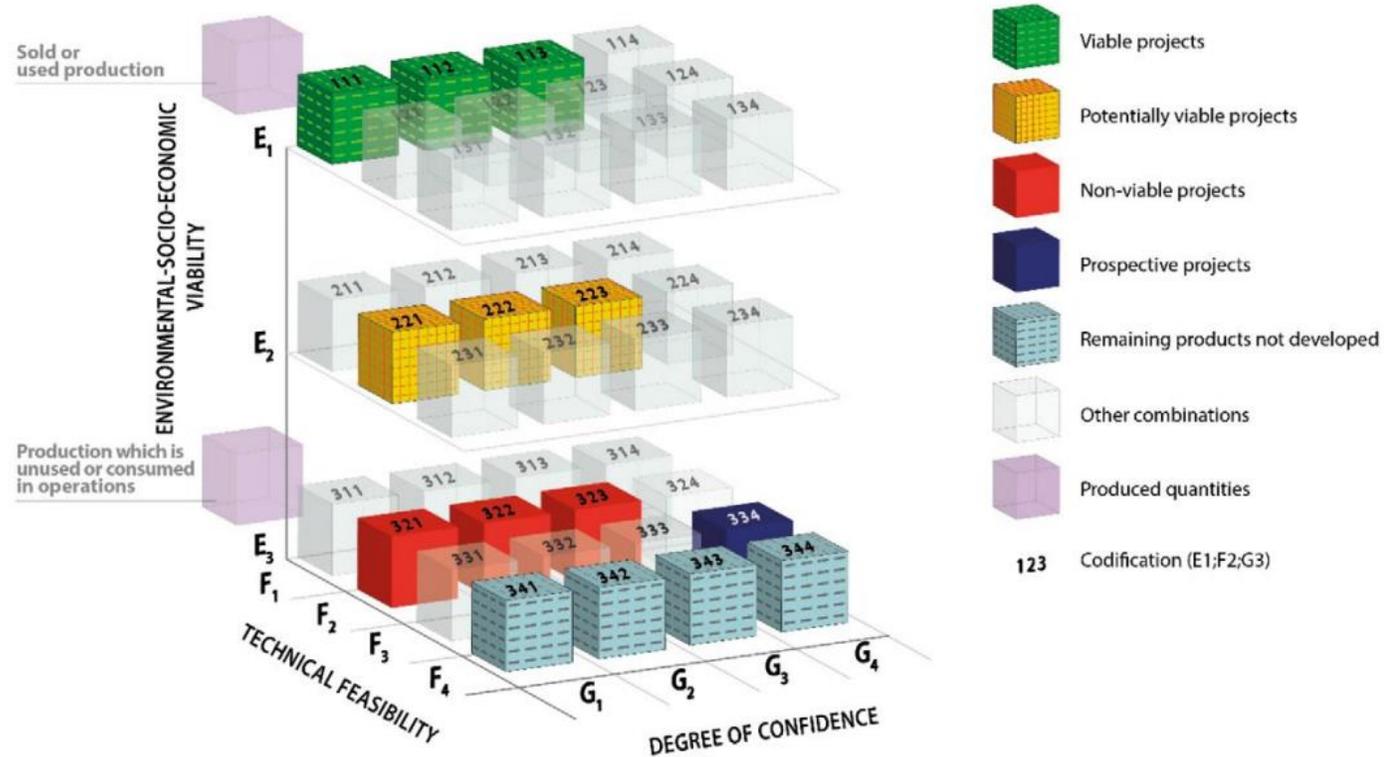
UNFC applies to

- energy resources including oil and gas
- renewable energy
- nuclear energy
- minerals
- injection projects for the geological storage of CO₂
- groundwater
- and the anthropogenic resources such as secondary resources recycled from residues and wastes

[About UNFC | UNECE](#)

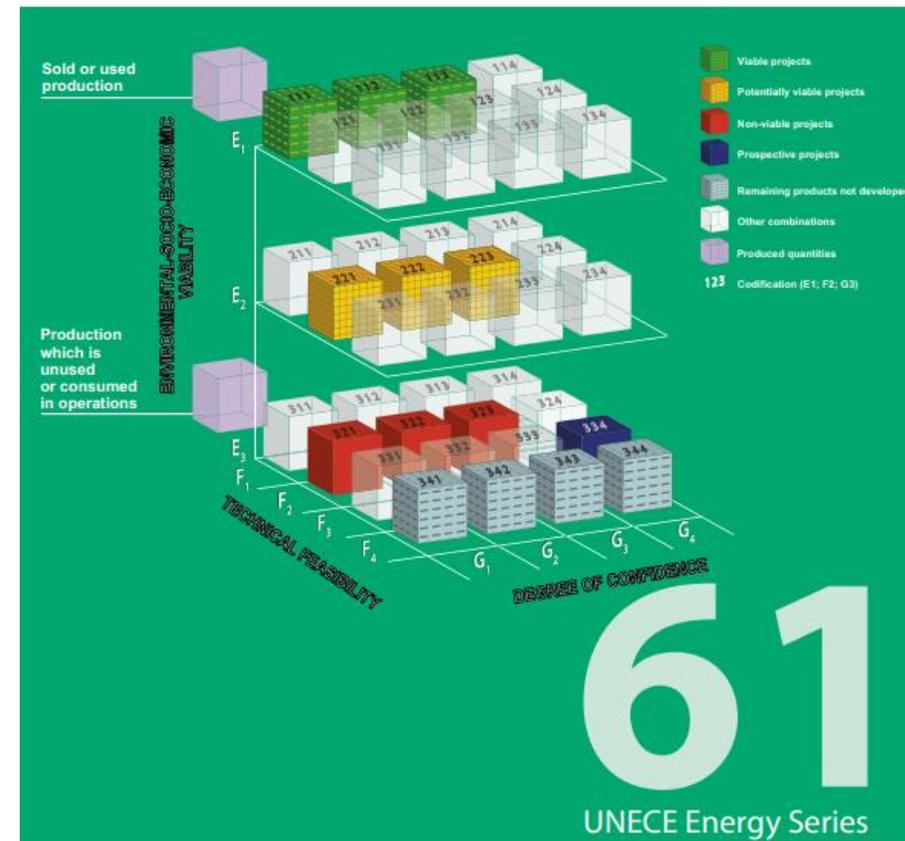
UNFC Cube

FIGURE 1
UNFC Categories and Examples of Classes



Video explaining UNFC

- [Fundamentals of the UNFC explained – YouTube \(8:19 min\)](#)

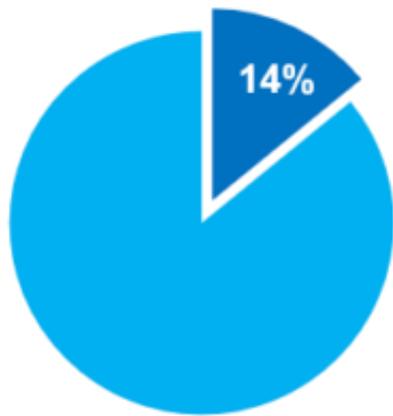


Reporting to the revised national budget (RNB)

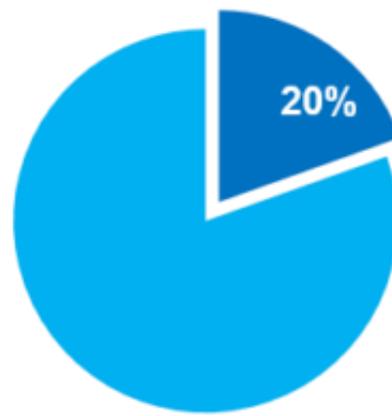


- Pursuant to the Regulations to the Petroleum Act, operating companies shall submit data for use in the revised national budget (RNB)
- "Reporting shall include corporate financial data, projects, resource volumes and forecasts for production, costs and environmental discharges/emissions as specified by the recipient."
- Each autumn, all operating companies shall submit data and forecasts for their respective **operated fields, discoveries, transportation- and utilization facilities (TUF)**

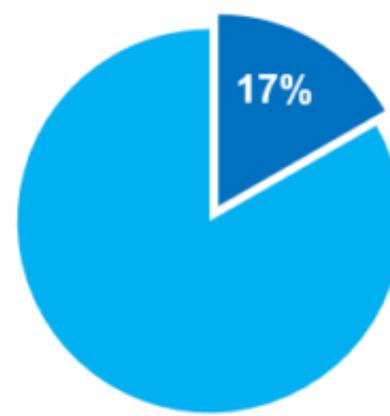
Input to the fiscal budgets, forecasts of income and expenditures from the country's largest industry



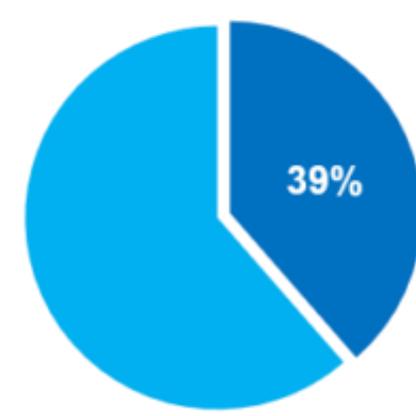
Share of GDP



Share of the State's revenues



Share of total investments



Share of total exports

The service and supply industry is not included
(Source: National Accounts, The Revised National Budget 2021)

Why the reporting is important

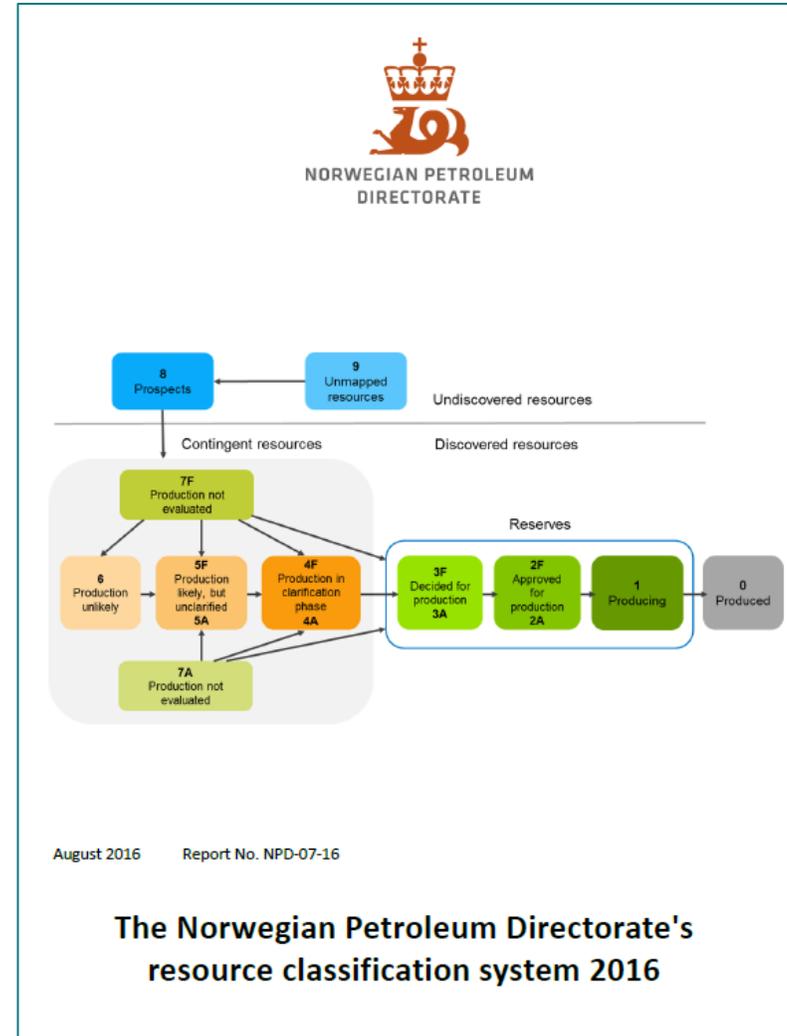
- The reporting to the RNB contributes valuable data for the Government's oil and environmental policy, the fiscal and national budgets
- The petroleum activities account for a substantial percentage of Norway's gross domestic product and total export
- These forecasts are important, and great emphasis is therefore placed on ensuring that high-quality reporting is provided within the stated deadlines
- NPD quality assures reported data, prepares its own estimates based on its own assumption and prepares overall forecasts

General guidelines

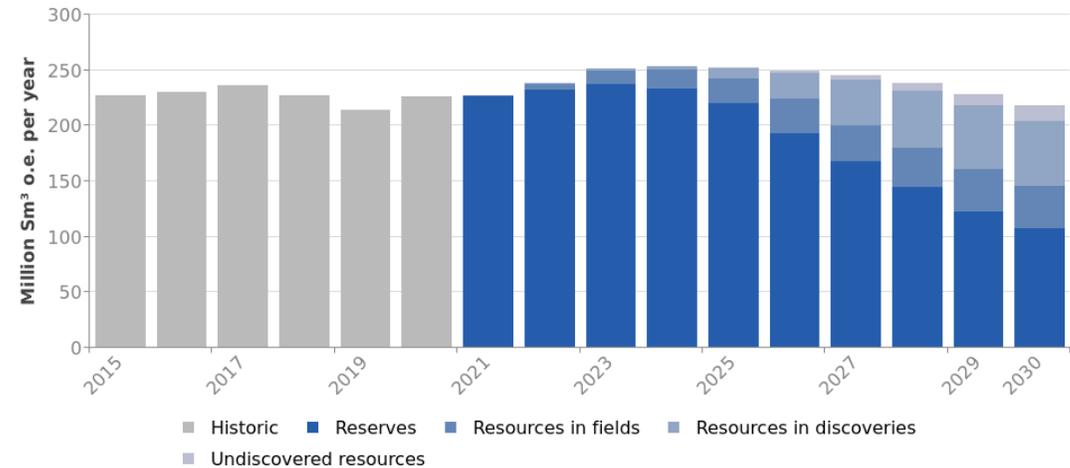
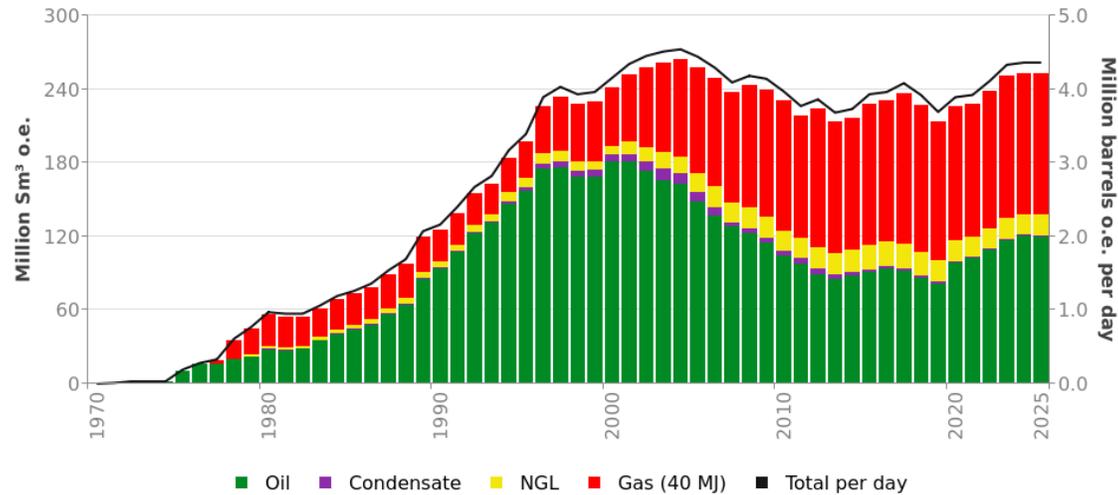
<http://www.npd.no/en/Reporting/National-budget/>



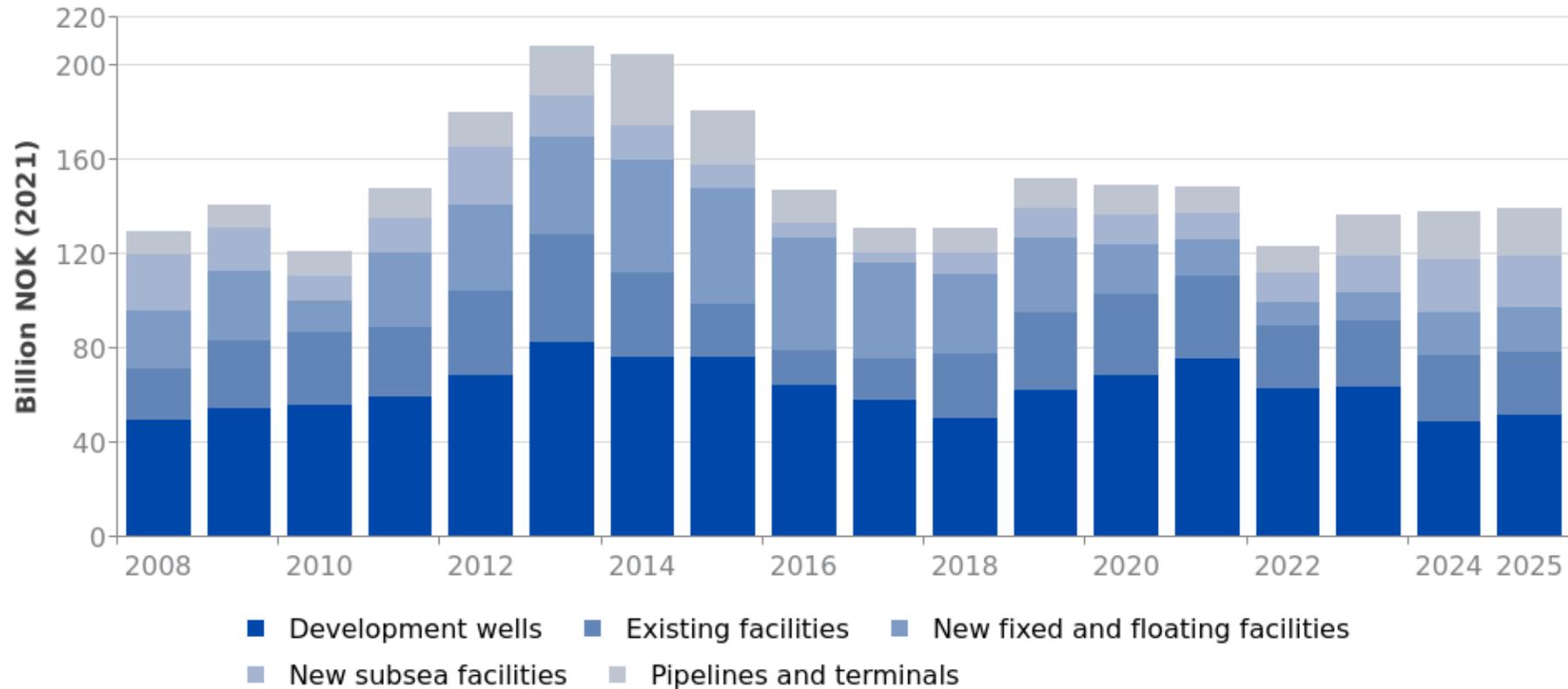
RNB2022 General Guidelines



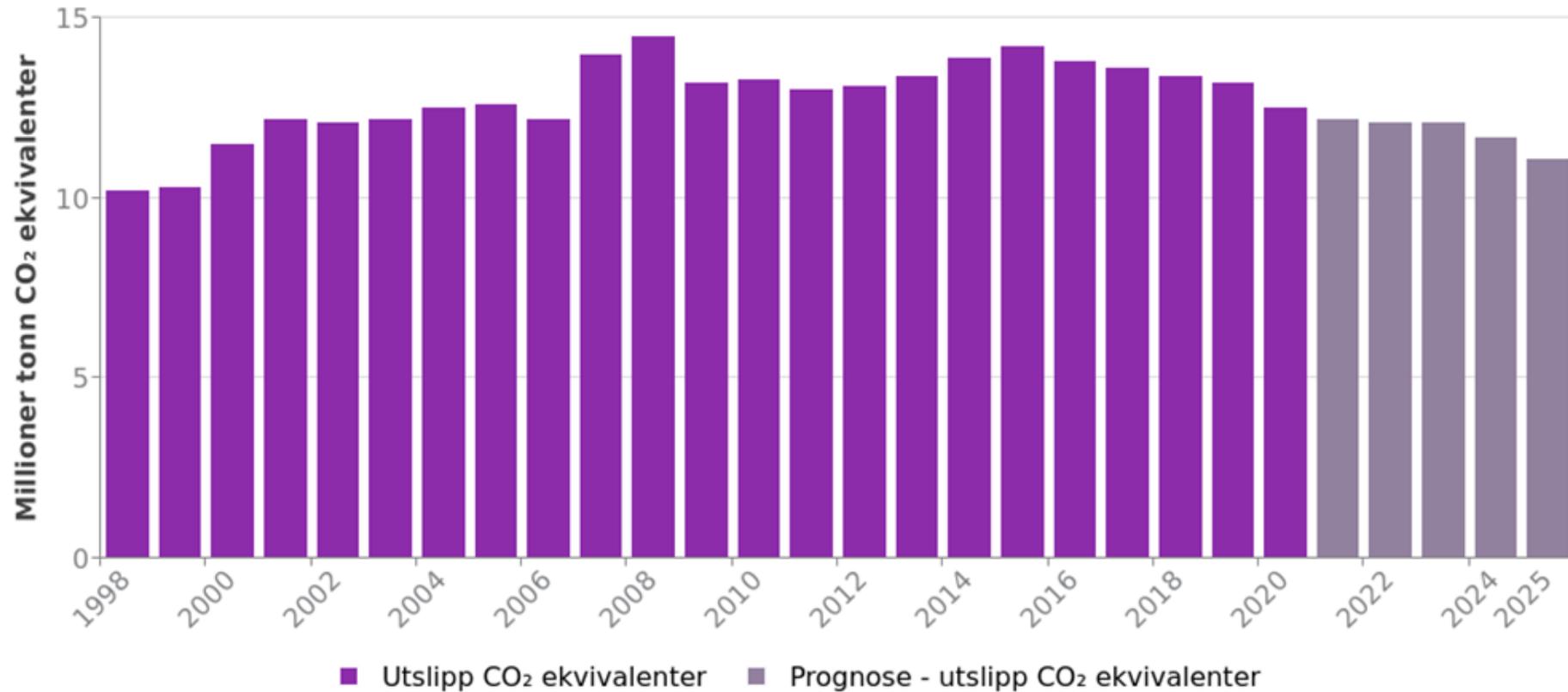
Use of RNB-data for public information - Production



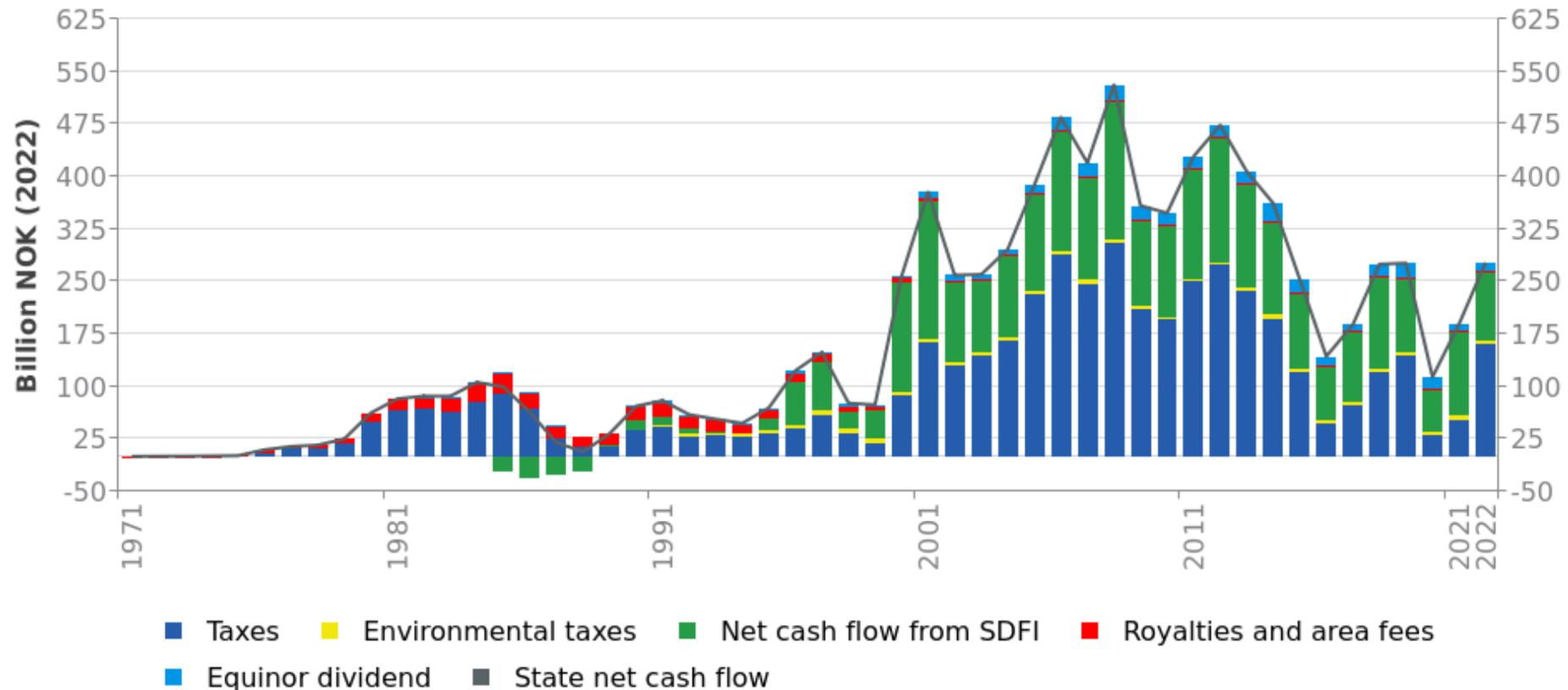
Use of RNB-data for public information - Investments



Utslippsprognose til 2025



The net government cash flow from petroleum activities, 1971-2022



2021 and 2022 are preliminary numbers from the National Budget 2022. Paid taxes are adjusted for repayments and numbers are inflated using CPI Norway.

Source: Ministry of Finance, Statistics Norway

Sources for data

- NPD Factpages

<http://factpages.npd.no/>

- NorskPetroleum.no

<http://www.norskpetroleum.no/en/>

- npd.no

- DISKOS.no

FACTPAGES
NORWEGIAN PETROLEUM DIRECTORATE

Wellbore Licence BAA Field Discovery Company Survey Facility TUF Stratigraphy

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«Without data,
you're just
another
person
with an
opinion»

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