

# Udate on the Nordic UNFC project

Presentation delivered by Sigurd Heiberg to the UNECE Expert Group on Resource Classification

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## Introduction

Mr.Chairman, colleagues and friends,

The UNFC has now been out for three years. This meeting demonstrates that it is read and accepted by a broad community.

The time is right to develop guidelines for regional application. The Nordic UNFC project proposes to do just that for the Nordic region. The region is closely tied to Europe and the EU. This link should be taken into account when shaping the project.

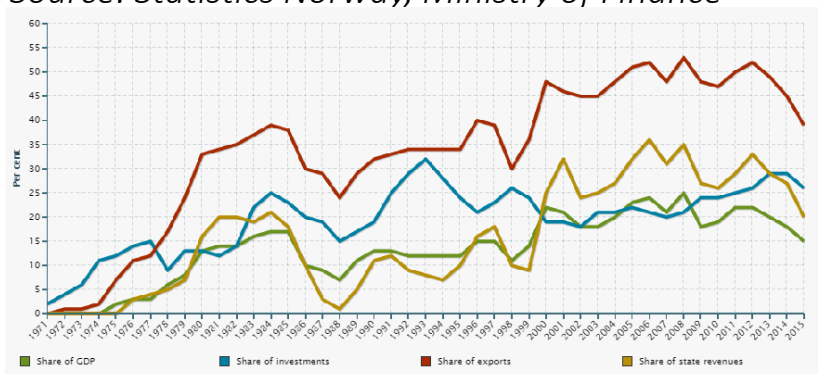
Here we find Governments who care, not just out of interest, but of necessity. Sweden is the third largest producer of iron ore in Europe, after the Russian Federation and Ukraine. In 2013, it supplied 92% of the EU's iron ore, in addition to other mineral commodities. Its mining traditions go back 1500 years.

Oil and gas production in Norway started when I got out of school, and became economically important some years later as seen by the macroeconomic indicators on Figure 1 and the state revenues on Figure 2.

## MACROECONOMIC INDICATORS FOR THE PETROLEUM SECTOR, 1971-2015



Source: Statistics Norway, Ministry of Finance



3

Figure 1



## THE NET GOVERNMENT CASH FLOW FROM PETROLEUM ACTIVITIES, 1971-2015

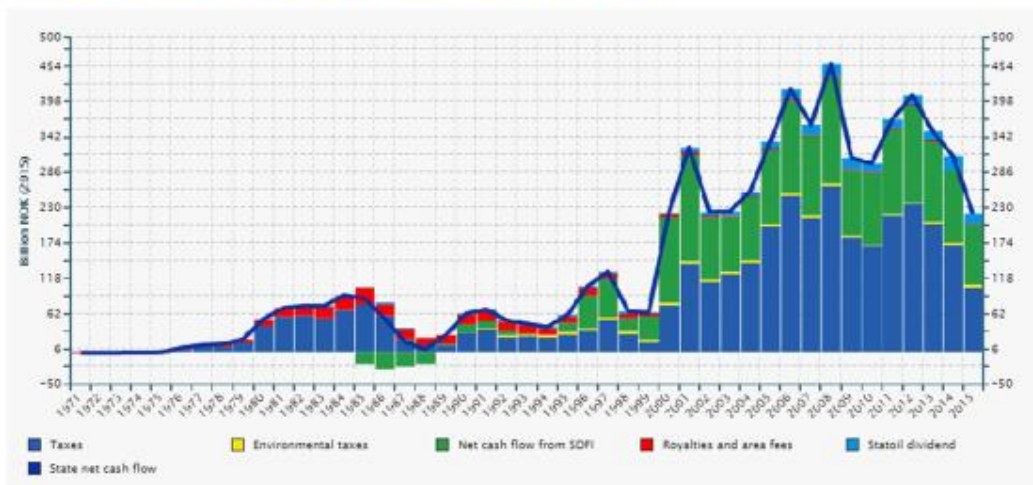


Figure 2

The resource base and the alertness of Governments have inspired the international and national industries to excel in deploying their capabilities here.

In summary, we find a unique public-private partnership scene in the Nordic countries that make the region ideal for developing regional guidelines for the use of the UNFC.

Focus of the Nordic UNFC project should be on decision support. Figure 3 reminds us of the applications that the UNFC is designed to serve. Its domains of application are shown in Figure 4.

## Application of the Nordic UNFC project

- Produce UNFC inventories using the professional community competencies
- Apply them for:
  - Regional and global studies
  - Government resources management
  - Industry business process management
  - Finance
  - ...and
- Produce disclosures in other systems mapped to the UNFC by transposing UNFC inventories.

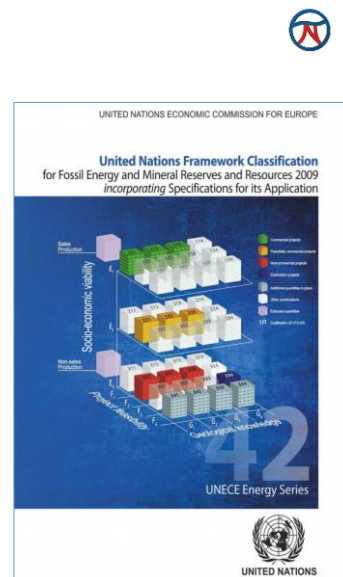


Figure 3



# Domains of application of the UNFC

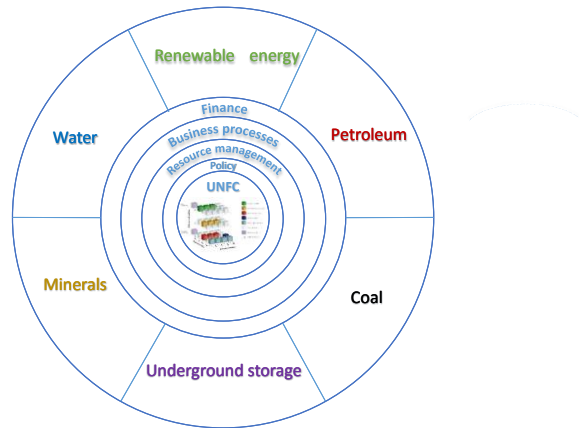


Figure 4

The Nordic region has national policies with respect to fossil energy and minerals. For these, numbers matter. As an example, Figure 5 shows the five pillars of the mineral strategy of Sweden. They will be different in the different countries and regions, and the way UNFC is applied must respect the differences.



## The mineral strategy of Sweden

Updated 17 May 2015



<http://www.government.se/contentassets/78bb6c6324bf43158d7c153ebf2a4611/swedens-minerals-strategy.-for-sustainable-use-of-swedens-mineral-resources-that-creates-growth-throughout-the-country-complete-version>

5

Figure 5

Figure 6 lists some of the issues of application that the project may wish to look into.



## Issues of application

- Global, regional and national resource studies:
  - How do we build the future we want
- Government resources management
  - Legal, fiscal, regulatory, contractual frameworks
  - Administrative practices (licensing, permitting ..)
  - Infrastructure development (transport, social development, education, health, safety...)
  - Revenue and cost management
- Business process management
  - Shaping portfolios through acquisitions and divestments
  - Capability deployment in exploration, development and production
  - Portfolio optimizations in time and space
- Financing
  - Capital allocation
  - Financial reporting
  - Checking that the numbers are useful for and used in the capital market

6

Figure 6

Likewise, there are issues of categorisation, that are listed in Figure 7.



## Issues of categorization

- Reference points:
  - Coherence with national and international statistics
  - How to address multiple products and product substitution
  - Non-sales production for household economy and residuals (waste)
  - Circular economy – waste hierarchy
- E-axis:
  - International, national and local hard and soft framework conditions
- F-axis:
  - Conformity between the capital value processes in Government and industry
  - Addressing development as processes rather than projects – distinguish modifications from initial development.
- G-axis:
  - Basic education
  - Management of opportunities and risks arising from uncertainty
  - Aggregation

9

Figure 7

The large fossil energy and mineral “projects” span decades and are engineering processes rather than single projects. The challenge is not so much to design a facility as to design a process whereby the facilities can serve the need of the day as this changes. In fact, it is a legal requirement for both Government and licensees in Norway to seek the efficient extraction over time. This is found in section 4 of the Petroleum law:

## Section 4-1

### Prudent production

*Production of petroleum shall take place in such a manner that as much as possible of the petroleum in place in each individual petroleum deposit, or in several deposits in combination, will be produced. The production shall take place in accordance with prudent technical and sound economic principles and in such a manner that waste of petroleum or reservoir energy is avoided. The licensee shall carry out continuous evaluation of production strategy and technical solutions and shall take the necessary measures in order to achieve this.*

To monitor compliance the NPD attaches an attribute to the project categories, indicating whether they are new developments or modifications of existing developments. The modification activities are of the same order of magnitude as the development activities.



## Conclusions

- The UNFC is designed to support decisions at the global, regional (in our case – Nordic and EU), national, corporate and financial levels, **and it must.**
- The time is right to develop guidelines for how to achieve this.
- The Nordic region is a good place to start
- Governments and industries must both engage
- Other regions are be welcome to replicate the exercise taking into account the conditions they face.

9

The accompanying slide deck includes back-up slides with key details that time did not allow to elaborate on.