The Norwegian resource management model
A crucial step in securing Norway the rights to any oil and gas off the Norwegian coast was to claim jurisdiction and proprietary right of the area now known as the Norwegian Continental Shelf (NCS). This process was not finalised until May 1963. At that time, there were no Norwegian oil companies and very few institutions that could involve themselves in petroleum activities.

Right from the start, it has been fundamental that the oil and gas resources belong to the whole of Norwegian society, and that they must be administered for the benefit of present and coming generations. National administration and control were an early pre-requisite for the Norwegian government, as was the building up of governmental institutions and a Norwegian oil community. The NCS was opened up gradually, with only a limited number of blocks being offered in each licensing round, in order to maintain a moderate rate of development.

To begin with, the Norwegian government selected a model in which foreign companies carried out all petroleum activities on the NCS. Over time, the Norwegian involvement was strengthened by the creation of a wholly owned state oil company, Statoil.

"We understand that you are interested in exploring for oil in the North Sea. We hold the rights to this and we do not intend to grant any licences before we know what we are doing. We are quite simply giving you a challenge: Educate us!" These were the words of Jens Evensen, the chairman of the newly created Norwegian Petroleum Council, when meeting representatives of international oil companies, who had been invited to the Ministry of Foreign Affairs for one of the first meetings about petroleum activities in Norway.

Source: Kindingstad & Hagemann (2002), “Norges oljehistorie” (freely translated)
Additionally, Norsk Hydro took part in the petroleum activities. A private Norwegian company, Saga Petroleum, was also established. The cooperation and competition between the various companies on the NCS have been crucial, as they have all possessed different technical, organisational and commercial expertise. This policy has played its part in Norway having today its own oil companies and a competitive supply industry, and in the nation having secured high revenues from the sector.

The present division of labour and responsibility
The organisation of petroleum activities reflects Norwegian attitudes to ownership of natural resources and organisation of the civil service and business activities. Respect for the environment, health, the working environment and safety plays an important role. All of the current players in the Norwegian petroleum industry have a common interest in creating the greatest possible value from the recovery of Norwegian petroleum resources. The organisation of the business today, as well as the division of labour and responsibility, aim to ensure that important social interests are protected, and that the value created will benefit the society.

The Storting
The Storting, the Norwegian parliament, creates the framework for Norwegian petroleum activities. The methods used include passing legislation and adopting propositions, as well as discussing and responding to white papers about the petroleum activities. Major development projects or matters of great principle must be discussed and approved by the Storting. The Storting also has a duty to control the government and the civil service.

The government
The government holds the executive power over petroleum policy and is responsible to the Storting for this policy. In applying the policy, the government and the ministries are supported by their subordinate directorates and agencies. The responsibility for the various parts of the petroleum policy is distributed as follows:
- The Ministry of Petroleum and Energy – responsible for the management of resources and the sector as a whole
- The Ministry of Labour and Social Affairs – responsible for health, the working environment and safety
- The Ministry of Finance – responsible for state revenues
- The Ministry of Fisheries and Coastal Affairs – responsible for oil spill contingency measures
- The Ministry of the Environment – responsible for the external environment

The oil companies
National and multinational companies are responsible for petroleum activities on the NCS. These activities include many complicated decisions of a commercial and technical nature, and, as elsewhere in society, coordination and competition between commercial players often yields the best results. In order to protect the interests of society, the authorities seek as far as possible to influence the companies’ decisions through clear-cut and predetermined frameworks for their activities. In this way, decisions made by the oil companies also yield the most benefit for society.
THE MINISTRY OF PETROLEUM AND ENERGY

The Ministry of Petroleum and Energy holds the overall responsibility for management of petroleum resources on the NCS. This includes ensuring that the petroleum activities are carried out in accordance with the guidelines drawn up by the Storting and the government. The Norwegian Petroleum Directorate is administratively subordinate to the Ministry of Petroleum and Energy. In addition, the ministry holds a special responsibility for monitoring the state-owned corporations, Petoro AS and Gassco AS, and the partly state-owned Statoil ASA.

The Norwegian Petroleum Directorate

The most important tasks for the Petroleum Directorate are to maintain the administrative and financial control of exploration and recovery of the petroleum resources, in order to ensure that they are in accordance with legislation, regulations, decisions, licence conditions and the guidelines laid down by the ministry. The directorate is an advisory body for the ministry in questions regarding the petroleum sector.

Petoro AS

Petoro AS is a state-owned corporation which is responsible for the State’s Direct Financial Interest (SDFI) on behalf of the state.

Gassco AS

Gassco AS is a state-owned corporation responsible for the transport of natural gas from the NCS.

Statoil ASA

Statoil ASA is listed on the Oslo and New York stock exchange. As of 1 March 2005, the state owned a 70.9 percent stake in the company.

THE MINISTRY OF LABOUR AND SOCIAL AFFAIRS

The Ministry of Labour and Social Affairs holds the overall responsibility for the working environment and for safety and contingency measures in relation to the petroleum sector.

The Petroleum Safety Authority Norway

The Petroleum Safety Authority holds responsibility for safety, contingency measures and the working environment in the petroleum sector.

THE MINISTRY OF FINANCE

The Ministry of Finance has the overall responsibility for ensuring that the state collects taxes, fees and other revenue from the petroleum sector.

The Petroleum Tax Office

The Petroleum Tax Office is part of the Norwegian Tax Administration, which is subordinate to the Ministry of Finance. The main function of the Petroleum Tax Office is to ensure correct assessment and collection of the taxes and fees that have been decided on by the political authorities.

The Government Petroleum Fund

The Ministry of Finance is responsible for administrating the Government Petroleum Fund. Responsibility for operational administration has been delegated to Norges Bank.

THE MINISTRY OF FISHERIES AND COASTAL AFFAIRS

The Ministry of Fisheries and Coastal Affairs is responsible for maintaining adequate contingency measures against acute pollution in Norwegian waters.

The Norwegian Coastal Administration

The Coastal Administration is responsible for national oil spill contingency measures.

THE MINISTRY OF THE ENVIRONMENT

The Ministry of the Environment holds the overall responsibility for management of the Norwegian environment.

The Norwegian Pollution Control Authority

The responsibilities of the Norwegian Pollution Control Authority include to follow up the Pollution Control Act. A second key task is to provide the Ministry of the Environment with advice, guidelines and technical documentation.
Coordination within the industry

There exist today a number of arenas and meeting places in order to promote coordination in the petroleum industry, and to improve the players’ wider understanding of the range of challenges that the industry faces – be they organisational, technological or commercial. The Ministry of Petroleum and Energy sees it as important to support and participate actively in them.

1 Industry and industrial cooperation linked to the petroleum industry, domestically and abroad

Topplederforum (senior management forum)

A new forum for senior management in the petroleum industry was introduced in 2000, under the leadership of the Minister for Petroleum and Energy, with the aim of promoting efficiency and activity on the NCS. Today, the Topplederforum is made up of around 30 senior managers from oil companies, the supply industry, labour organisations and the authorities. Its mandate is to reinforce the international competitiveness of the NCS, as well as the competitive strength of the Norwegian supply industry both at home and abroad. Initiatives originating from this forum include projects and working processes related to the cost level on the NCS, as well as improvement of cooperation within in the sector.

INTSOK

INTSOK – Norwegian Oil and Gas Partners – is a foundation that was established by the authorities in 1997, in partnership with the Norwegian petroleum industry. It is regarded by the Norwegian authorities as an important partner. In excess of 150 companies are members of the foundation. INTSOK aims to help and promote the Norwegian petroleum industry internationally. The goal is for the Norwegian petroleum industry to increase it’s annual turnover significantly from the current level of around NOK 35 billion.

Petrad

As part of its international activities, the MPE also supports the Petrad foundation. Petrad is a Norwegian aid agency, which offers various types of knowledge transfer programmes to management of national oil companies and petroleum authorities in developing countries.

2 The significance of technological developments in value creation and competitiveness in the oil and gas industry

OG21 – Oil and gas in the 21st century

In order to be able to face the major challenges of value creation and environmental protection that are linked both to the development of the NCS and to reinforcing Norwegian industry’s competitiveness, a broad-ranging partnership within the oil and gas industry was implemented in 2001, with the aim of establishing a national strategy for research and development. This partnership is known as OG21 – Oil and gas in the 21st century.

One important goal for this initiative is to ensure a unified and more efficient partnership within the oil and gas industry in the fields of research, demonstration and commercialisation.
of technology. Attention has been directed at achieving efficiency gains throughout the value/research chain and between oil companies, the supply industry and research institutions.

Based on the most important challenges faced by the petroleum industry, the following five main priorities have been identified in the OG21 partnership: 1) Environmental issues 2) Increased recovery 3) Deep-water production, 4) Industrial use of gas and 5) Development of small fields.

**DEMO 2000**

Another important initiative for the promotion of new technological solutions within the petroleum industry is the Demo 2000 partnership. This is a technological initiative directed at three main goals:

- New field developments on the NCS through new and cost-effective technology and new implementation models
- Increased certainty of implementation within budget and according to plan
- New Norwegian industrial products for sale in a global marketplace

Demonstrations and pilot projects will qualify new, cost-effective technology for use. The goal is to create new development projects, products and jobs. The pilot projects involve a close cooperation between supply companies, research institutions and oil companies, a partnership that, in itself, contributes to the development of a forward-looking, market-oriented network. The programme funding is channelled through the Research Council of Norway.

**PETROMAKS**

In 2004, a new major petroleum research programme, PETROMAKS, was established, coordinated by the Research Council of Norway. The technological goals defined in OG21 form the starting point for PETROMAKS, which is intended to improve recovery from producing fields and increase accessibility to new reserves. The key research tasks within the first phase of this new programme are:

- Exploration: Development of geophysical measurement methods, exploration and reservoir models and improved understanding of basin formation.
- Increased recovery in a wider perspective: Development of methods for stimulated recovery, reservoir monitoring and control, drilling technology, as well as new processes, methods and technology for gas delivery.

**Petropol**

The Petropol research programme is coordinated by the Research Council of Norway. Its objective is to maintain and extend the knowledge base of the social science research community in Norway working on petroleum-related issues.