

ALLIANCES AS COMPETITIVE STRATEGY IN THE OIL&GAS INDUSTRY

THE CASE OF ENI AND STATOILHYDRO

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	page
1. Introduction	
1.1. Background for this study	2
1.2. Objective of this study	6
1.3. Methodology	9
1.4. Description of problem and main questions	10
2. Theory	
2.1. Theory on strategic alliances	13
2.2. Theory on competitive advantage and competitive strategy in oil companies	19
2.3. Analytic model	27
3. Analysis	
3.1. Presentation of the industry	
3.1.1. International Oil Companies	28
3.1.2. National Oil Companies	28
3.1.3. Strategic Alliances in the oil&gas industry	29
3.1.4. IOCs' and NOCs' strategies	36
3.2. Presentation of ENI and Statoilhydro	39
3.3. The cooperation project Goliat	42
3.4. The strategy of ENI	45
3.5. The relations between competitive strategy and strategic alliance in ENI	47
4. Conclusions, limitation and suggestions for further research	50
5. Bibliography	52
6. Appendix 1 and 2	55

1. Introduction

1.1. Background for this study

Oil is a crucial resource for the world. It is not renewable, and it is not of easy access.

Accessing to oil resources is not just a concern of Countries and governments. It is crucial also for oil companies, since it is at the basis of their production activity, and for the entire world, since energy demand is still increasing, despite a temporary decrease due to the economic crisis we are going through.

Traditional oil resources are getting fewer and less, making it difficult for oil companies to guarantee the basis of their business. The Norwegian Continental Shelf is an example of production that after decades of uninterrupted growth has reached the top and will start declining in the next years. Quoting KonKraft rapport (Summary of KonKraft report 2, "Production development on the Norwegian Continental Shelf" page 3, available at www.konkraft.no) "*Overall production of oil and gas on the NCS has reached plateau at a daily rate of four to 4.5 million barrels of oil equivalent (boe). It is expected to remain at this level for the next seven years. Around 2015, however, overall oil and gas production is expected to start declining.*"

This concern is confirmed by the 2007 resources report of the Norwegian Petroleum Directorate.

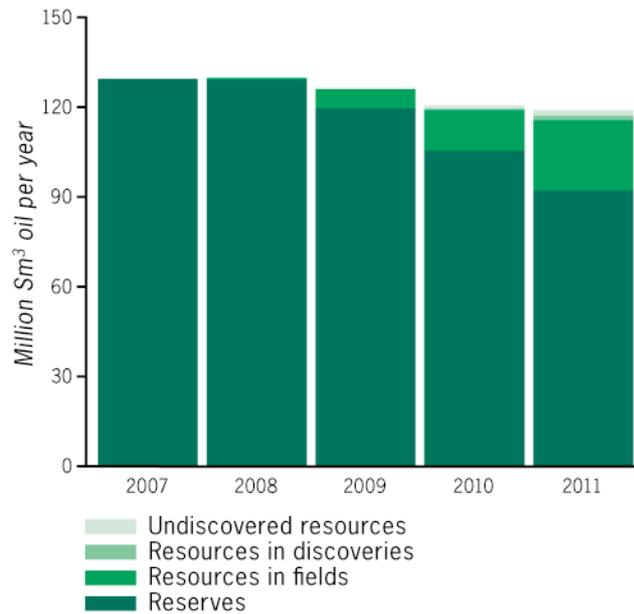


Fig 1, from the 2007 Resource Report of the Norwegian Petroleum Directorate, available at http://www.npd.no/English/Produkter+og+tjenester/Publikasjoner/Ressursrapporter/2007/ress_kap4.htm

Declining reserve quantity is not the only challenge for oil companies. After a past where environmental issues were not considered, it is now becoming more and more necessary to operate in an environmentally sustainable way. Oil companies must find solutions that reduce environmental impact as much as possible. It is a matter of environmental awareness, but it is often also a question of formal requirements from reserve holding States.

So, oil companies shall increase production on the basis of increasingly scarce resources, and do all this in a not polluting way.

In this picture, it is clear the importance of the discovery of new fields. Another big challenge is reaching these new fields before competitors. The increasing number of oil companies makes competition harder. Old and new operators must deal with an intense competition for access to resources.

As a result, oil companies try to expand themselves to gain access to new geographic areas and to more reserve holding States.

In the last years, we have seen strong interest toward the potential reserves of the Arctic region. There have been many exploration activities in the area, with some good results. The Barents Sea is a geographically small area, but it has a big potential. Goliat is located in this region, and is at the centre of the attention of local society and oil companies because it is the first important case of oil production in the Barents Sea. The development of this project could indicate the way for the future of the development of the entire area and Northern Norway, and for oil production in the Barents and Arctic Sea.

Also in the case of new areas exploration, IOCs must deal with the presence of local national oil companies. Usually established by governments, NOCs have of course privileged access to local resources.

International oil companies (IOCs) can penetrate new markets by offering to collaborate with local NOCs.

On the other hand, NOCs are usually interested in partnerships with IOCs for reasons like lack of expertise and ambitions of international expansion.

The number of strategic alliances between oil companies has increased in the last years. Green and Keogh (2000) mention that the first CRINE (Cost Reduction Initiative for the New Era) report invited oil industry to a shift in interaction methods, in a period when the industry started realising “*that adversarial relationships not only added to its (i.e. industry’s) costs but also threatened its continued existence*”. This tendency “*accelerated after 1992 (...). The majority of the oil and gas companies and their contractors now embrace, at least partially, a more collaborative style of working*” (Green and Koegh, “Collaboration in the upstream oil and gas industry” Strategic Change, June 2000, page 250 and 251, Copyright 2000 John Wiley & Sons) Newman and Chaharbaghi confirm that “*In fast-moving markets alliances are becoming a norm as the level of conflict is minimized by partners recognizing that they are the only vehicle for minimizing risk associated with market and technology uncertainty*” (Newman and Chaharbaghi, “*Strategic alliances in fast-moving markets*”, copyright 1996 Elsevier Science Ltd)

Companies are therefore motivated to collaborate with competitors. These motivations can for example be reducing risk, large-scale advantage, technology complementarities, competitive advantage and access barriers, overcoming barriers, exploiting local resources, accessing to resources (Nygaard, *Alliansebygging*, Fagbokforlaget, 2007, page 25).

There are different forms of collaboration. Companies choose which one to adopt according to their competitive and organisational strategy. Nygaard (2007, page 20) considers three main types.

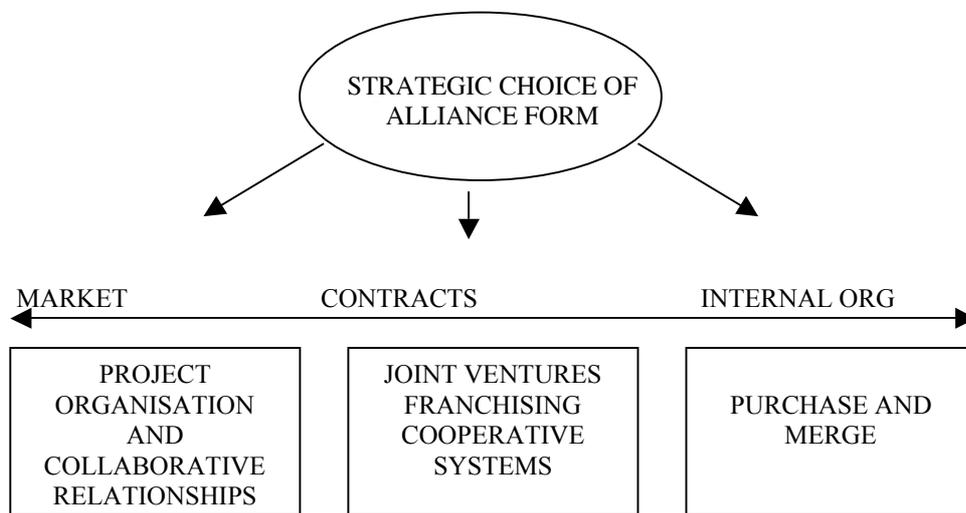


Fig 2, from Nygaard (2007), page 25

The choice of which form to adopt depends on the competitive strategy of the companies, but also on the organisational one, since also organisation could be affected by strong models of partnership like merging. Contract or market forms have less impact on internal organisation.

The competitive strategy of the company depends on internal factors, which are the strengths and the weaknesses of the same company, and on external factors, which are the competitive forces of the market.

Different internal and external factors bring to different competitive strategies and therefore to different alliance forms.

This paper will analyse the connections between competitive forces in the market and competitive strategy, and between competitive strategies and strategic alliances.

The collaboration between Eni and Statoilhydro in the oilfield Goliat will be the study case. We will investigate it mainly from Eni's perspective, but we will consider also the role and interests of Statoilhydro. An alliance is based on more partners, and has its scope in bringing benefit to all of them. The bases of collaboration are the common and/or complementary interests of the parts. If it is possible to concentrate on one partner's perspective, it is also necessary to keep in mind that an alliance is such because more companies joined together as a part of their competitive strategy.

1.2. Objective of this study

We will see that alliances are the strategy that International Oil Companies use for replacing their reserves, and for staying competitive in a fast-moving market like oil&gas industry.

International oil companies own less than 10% of world oil reserves (Jaffe and Soligo 2007). The rest is owned by reserve holding Countries and their national companies. These last ones have risen to high level of technology and operations, while in the past their operating role had a minor relevance. Reserve holding Countries had no possibility of exploiting their own reserves, and welcomed international oil companies (IOCs). Without the intervention of IOCs, many reserve holding Countries would not have managed developing a market for their resources.

In the last decade this situation has changed. National oil companies (NOCs) have become strong and competent operators, and reserve holding Countries have had less and less need for IOCs.

Replacing reserves is a crucial issue for IOCs, and the rise of NOCs, together with a decline in world oil reserves, is making it increasingly difficult.

Strategic alliances with NOCs are the mechanism that allows IOCs to have access to oil reserves. Understanding more about how IOCs develop strategic alliances means understanding an important strategy IOCs practise for replacing their oil reserves.

We will see that strategic alliances realise, putting them together, the competitive strategies of IOCs and NOCs. IOCs need to replace reserves, and NOCs need to develop expertise and a network for international expansion.

In other cases, strategic alliances help IOCs keeping competitive advantage in costs and knowledge leadership. It is usually the case of alliances with Independent Oil Companies, or with the few NOCs that own special technology know-how, like Statoilhydro as case of deep-water technology specialist.

In a published speech, taken in occasion of the International Oil Summit in Paris in April 2006, Malcolm Brinded, executive director exploration & production of Royal Dutch Shell, talked about the shared interests of NOCs and IOCs, and of his belief in the necessity of IOCs and NOCs working together. He said "*We (IOCs) can also offer links to markets, particularly for gas; and experience of transferring technology, helping to develop national staff and national capabilities*" (Malcom Brinded, "*NOCs and IOCs: partners with shared interests*", International Oil Summit, Paris, April 2006)

Again, we emphasise that alliances derive from complementary scopes. The complementary reasons in most of O&G alliances are, on IOCs side, the need for replacing reserves, and, on NOCs side, the need for expertise or international positioning. Research and interviews conducted by Valerie

Marcel and Yihe Xu on behalf of KPMG International in 2008 show that the main concern for NOCs' managers are "lack of skilled personnel" and "declining domestic reserves" (KPMG, "*Key issues for Rising National Oil Companies*", KPMG International, June 2008, page 11, available at <http://www.kpmg.co.za/images/surveys/key%20issues%20for%20national%20oil%20companies.pdf>)

A common scope is large-scale effect. In the last years (Nygaard, "*Alliansebygging*" Fagbokforlaget 2007, page 34) we have seen alliances not only at joint venture level, but also in the form of merging, like Exxon and Mobil.

Gordon and Stenvoll's study states, "*among the NOCs pursuing a significant international investment strategy, Statoil may be uniquely prepared to make this transition*" (Gordon and Stenvoll, "*Statoil, a study in political entrepreneurship*" The James A. Baker III Institute for Public Policy, Rice University, March 2007, page 41)

In absence of collaboration between these two parts, IOCs would have difficult or not access to reserve holding Countries' markets, which would be dominated by their own NOCs. On the other hand, if a NOC did not share any partnership with IOCs, it would hardly develop any know-how, it would probably have a serious lack of human resources, and would miss any chance of international expansion.

We will investigate the reasons behind strategic alliances, studying the connections between competitive forces in the market and competitive strategies, and between competitive strategies and strategic alliances.

We will analyse the alliance from a IOCs perspective but, in order to understand if IOCs are able to continue practising collaboration as a strategy, we must also consider what IOC can really offer to NOCs. In other words, we ask ourselves if IOCs are able to add real value to NOCs operations.

The study case will be the Goliat field in the Barents Sea, the first real project of oil production in the Barents area. Eni is the operator, in alliance with Statoilhydro.

Understanding the future possibilities of the strategy of alliances and cooperation means understanding the future of IOCs and of the energy market.

1.3. Methodology

We organised our work in theoretic analysis of strategic alliances, competitive advantage and competitive strategies, and the analysis of the oil&gas market, basing ourselves on relevant literature.

In the analysis of the market, we focused on IOCs' perspective, and considered other oil companies as elements of the market.

We made a short data analysis of data about Norwegian Continental Shelf production licences as a support for our conclusions. From Norwegian Petroleum Directorate webpage, we considered a sample of 99 licences (from nr 200 to nr 299) and listed licensees for each licence.

We sorted the here-included 57 active licences in 7 groups, according to the type of owner(s).

- one IOC
- one NOC, in this case Statoil
- one or more Independent Oil Companies
- a partnership of IOC and NOC
- a partnership of IOC and Independent Oil Company
- a partnership of NOC and Independent Oil Company
- a partnership of IOC, NOC and Independent Oil Company

For the study case about Goliat, we gathered information from Norwegian press and from Eni's website.

For the analysis of Eni's strategies, we have based ourselves on the website of the company, and more particularly on the pages regarding Eni's strategy and risk management, and on Eni's statistics about reserves and production.

1.4. Description of problem and main questions

We will study the reasons behind strategic alliances.

The main elements of the study will be

- The competitive forces in the oil&gas market
- The competitive strategies of the oil&gas companies
- The strategic alliances
- The partners in the alliance, i.e. oil companies.

When considering oil companies, we will concentrate on International Oil Companies (IOCs).

National Oil Companies (NOCs) will recur in the study, but will not be a real object of research.

For defining IOCs and NOCs, we refer to Jaffe and Soligo, "*International Oil Companies*" The James A. Baker III Institute for Public Policy, Rice University, 2007, page 17

"The distinction between IOCs and NOCs is not always clear-cut since, over time, some NOCs such as BP, Total and ENI S.p.A. have been privatized—or substantially privatized—so that they behave in ways that are similar to firms

that have always been in the private sector. And there are firms such as StatoilHydro and Petrobras that, although partially privatized, still seem to operate in some ways that reflect interests of their national governments. (...) the term “Big Five” refers to the Exxon Mobil, BP, Chevron, Royal Dutch Shell and ConocoPhillips. Together with Total and ENI, these companies are commonly referred to as the “supermajors.”

We decided to exclude the factor oil price from this study. Oil price is certainly relevant for the oil&gas market and strategic alliances, but it is too complex for being analysed in this paper.

The question we ask ourselves in this paper is how strategic alliances in the oil&gas industry are related to competitive strategies and competitive forces. Two questions derive immediately from this problem.

- What are the relations between the competitive forces of the market and the competitive strategies of the company? We will delimitate the question to the competitive strategies of the IOC.
- What are the relations between the competitive strategies of the IOC and strategic alliances?

Our study case will be the alliance between Eni and Statoilhydro in the Goliat oilfield in the Barents Sea. First, we will analyse alliance in a theoretic way in chapter 2. In chapter 3 we will present the oil&gas industry, study the elements already mentioned here (competitive forces, competitive strategies, strategic alliances and the parts in it), and the Goliat case. We will then concentrate on Eni’s strategy and on the relation between competitive strategy and strategic alliance for Eni.

In chapter 2, we will start analysing strategic alliances and will continue analysing the competitive forces within the oil&gas industry. We will consider the main weaknesses and strengths of IOCs, and will individuate their competitive strategies.

After this, we will search for the reasons that bring from competitive strategies to strategic alliance. These reasons could be other competitive

forces in the market or competition strategies of other companies, possibly of those companies, which are the other part of the alliance.

Our analysis of the alliance will therefore not be symmetric, because we will consider only the IOC's perspective.

Our study case is an alliance between an IOC (Eni) and a NOC (Statoilhydro). Our theory will be based on the same pattern. We will concentrate on the competitive strategy of an IOC, considering NOC's competitive strategy as an external factor that could maybe have an influence on IOC's decision of realising its competitive strategy though the alliance.

2. Theory

2.1 Theory on strategic alliances

What is a strategic alliance? Quoting Holmberg and Cummings (Holmberg and Cummings, “Building Successful Strategic Alliances, Strategic Process and Analytical Tool for Selecting Partner Industries and Firms”, Elsevier, Long Range Planning 42 (2009) 164e193) strategic alliances are “*Cooperative arrangements between two or more firms to improve their competitive position and performance by sharing resources*”.

Thomson, Strickland and Gamble (Thomson, Strickland III, Gamble, “*Crafting and executing strategy*” McGraw-Hill, 16th edition, page 163) list five characteristics that make cooperation strategic

- “ 1. *It is critical to the company’s achievement of an important objective*
2. *It helps build, sustain or enhance a core competence or competitive advantage*
3. *It helps block a competitive threat*
4. *It helps open up important market opportunities*
5. *It mitigates a significant risk to a company’s business*”

1. It is critical to the company’s achievement of an important objective

The alliance is the realisation of a competitive strategy that has an already specified objective. Since the scope of competitive strategy is gaining (or keeping) competitive advantage, we can also say that firms make alliances for reaching competitive advantage, and that they make them when there are no other valid alternatives, as when critical resources are not available within the company, and it is therefore necessary to get them from outside, or when there are externalities in the market that make cooperation the only feasible alternative.

2. It helps build, sustain or enhance a core competence or competitive advantage

The closer the alliance is to the core competence of the firm, the more strategically important this alliance is. Core competence is defined as the complex of the unique and valuable properties that give the company competitive advantage (Haugland, "*Samarbeid, alliancer og nettverk*" Universitetsforlaget, 2004, page 27). So, since strategic alliances are a realisation of competitive strategies, their scope is strongly connected to the core competence and to the goal of gaining competitive advantage.

3. It helps block a competitive threat

Blocking competitive threat is a competitive strategy as well. It answers to a threat in the market. We emphasise again that strategic alliances are a competitive strategy tool. An example of such an alliance is cooperating with strong competitors, in order to turn them into allied rather than a threat.

4. It helps open up important market opportunities

Opening market opportunities is another competitive strategy. An example of such an alliance is the cooperation with a strong distributor that can help the company placing its products in new markets.

5. It mitigates a significant risk to a company's business

A significant risk can be for example scarcity of resources in the market. Resources can be raw materials, know-how or manpower.

An example of how an alliance can mitigate a significant risk is the cooperation with a supplier in a market where there is scarcity of resources and a consequent strong bargaining power of suppliers. Of course the firm must be able to offer add value to the supplier in order to motivate the supplier to collaborate.

In addition, we can add that alliances

6. Have the advantage of being flexible, in opposition to merge, fusion or purchase

Strategic alliances involve partially also organisational strategy, but do not bring major changes, in opposition to fusions and purchase.

As we already mentioned, firms make alliances when they lack resources internally, and when these resources are available outside. The next question will be about how to get to them. There are usually three ways, i.e. purchasing services, purchasing companies, and strategic alliances

Strategic alliances are the most flexible alternative, and it is usually chosen in very instable and complex contexts, where it is necessary to adapt quickly to the continuous market modifications and to have specific know-how in different areas.

Purchasing a supplier or a customer or a competitor involves all the risks and costs connected with the fusion of separated entities into one, and it does not leave space to change of strategy.

Buying services is another alternative that guarantees flexibility, and that can provide the needed resources on the short term and for a specific case. In the oil&gas industry, IOCs often purchase services from Independent Oil Companies.

As a long time commitment, an alliance allows building networks that can bring to new business and opportunities in the future, and to exchanging development of competence. Both parts will be able to continue activities independently.

It is in addition possible to involve more parts into the alliance, and to undertake more alliances with different partners.

Respect to integration, strategic alliances have therefore the clear advantage of being flexible.

7. Imply risk

The main risk is connected with what mentioned at point 2, “It helps build, sustain or enhance a core competence or competitive advantage”. Haugland (2004) warns about the danger of being subtracted core competence during an alliance. It is a big challenge typical of any occasion when the core competence, i.e. the most valuable properties of a firm, are exposed to another company. Being able to cooperating without being stolen important competence is a crucial skill.

8. Can have different form, structure and different positions within the value chain.

Partnerships can have different forms. The idea of form in an alliance refers to the levels of connection between the parts. Connections can be less or more tight. They can be active just out in the market or internally to the organisation.

If the collaboration involves organisation issues, connections are very tight. Fig 2, taken from Nygaard (2007) describes the different forms of collaboration in this market versus internal organisation perspective, characterising the first with weak connections and low interdependence, and the second with strong connections and interdependence.

Haugland (2004) considers this bipolar scheme as not applicable to long and complex alliances as a whole, but as correctly describing single moments of the cooperation. While elaborating solutions, parts will be quite independent when a market-oriented option is chosen. In cases when actions affecting organisation are the issue, parts have less decision freedom.

Strategic alliances can have different structures. They can involve parts at the same level in the supply chain or at different levels. In the first case the collaboration is between competitors or potential competitors. Operators occupying a similar position in the supply chain join into a *horizontal* alliance.

In the second case the partnership is undertaken between supplier and customer in a *vertical* structure.

The structure of an alliance, especially of a horizontal one, can vary also according to the number of members included. When more than ten companies are involved, we prefer to talk about *chain* or *network* rather than of partnership or alliance. (Haugland, 2004) Examples of such agreements are networks in the civil aviation industry as Sky Team or Star Alliance.

Strategic alliances also have different positions within the value chain and cover different functions. Nygaard (2007) reports Urban and Vendemini's list of functions where alliances are possible, regrouped in five value chain phases

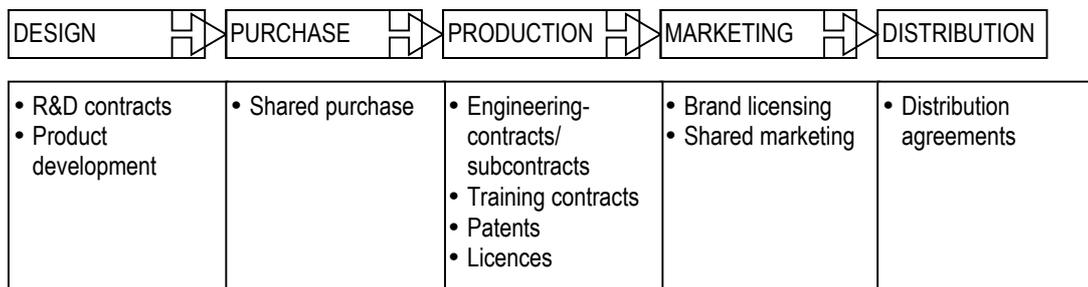


Fig 3, Value Chain from Nygaard (2007), page 18.

9. Allow getting resources the firm does not have internally

The fact that an alliance allows getting resources the firm does not have internally can at this point seem obvious. Later we will see that getting resources from outside is not just a case of filling the gap in the moment when it is evident that there is a critical lack of resources, but also a question of mindset behind the strategy.

10. Can be defensive or offensive

Strategic alliances can be defensive or offensive strategy. It means that firms can choose to strengthen market values that already exist, rather than creating new ones. Newman and Chaharbaghi (1996) introduce this defensive-offensive bipolar model, and base on it observations about how strategic alliances can be source of competitive advantage.

A defensive strategy will usually consist in protecting the market. An offensive one aims to the exact opposite, i.e. to changing the market through different knowledge and new products.

11. Last but not least, a good strategic alliance is part of the corporate strategy.

Green and Keogh (2000) mention commitment and example from senior management as one of the necessary factors for the success of a strategic alliance. Management's support is essential (page 252) "*to do whatever is necessary to ensure its success*"

Holmberg and Cummings (2009) consider as vital (page 171) "*to clarify how a prospective alliance might create value for a firm, and to identify specific links to corporate objectives (...) Firms facing dynamic external and/or internal environments have an even greater need to align their corporate and strategic alliance objectives systematically.*"

Strategic alliances as an implementation of Competitive Strategy

Strategic alliances are one way to realise competitive strategies. Thomson, Strickland and Gamble indicate Strategic Alliances as part of competitive strategies in turbulent, high-velocity markets (Thomson, Strickland and Gamble, "*Crafting and executing strategy*" McGraw-Hill, 16th edition, page 244) say that firms rely on strategic alliance in this kind of market for

building their competitive position “*not just by strengthening their own internal resource base but also by partnering with those suppliers making state-of-the-art parts and components and by collaborating closely with both the developers of related technologies (...) An outsourcing strategy also allows a company the flexibility to replace suppliers that fall behind on technology or product features or that cease to be competitive on price*”.

The circumstance of a market in continuous modification, where values change fast and competition is based on the capacity of adapting in a particularly quickly, suggests competitive strategies based on speed of change and innovation.

Strategic alliances are a good strategic tool in such markets because it helps innovation bringing new ideas and knowledge from outside into the company. Through an alliance, a firm can get immediate contact with the resources of a competitor. Another reason of the efficiency of strategic alliances in this kind of market is its flexibility. When market values and conditions change, alliances can be discussed and reconsidered, differently from a fusion.

2.2 Theory on competitive advantage and competitive strategy in oil companies

In literature, there are four main theories about competitive advantage. None of them exclude the others. Each single real case is probably a different combination of all of them. The four theories focus each on one factor, which would give competitive advantage.

- (1) (Nature) resources control
- (2) Competence specialisation
- (3) Unique combination of resources and competence
- (4) Leading skills of the management

Theory (1) is very relevant for oil&gas industry. Resources are a crucial factor for gaining advantage over competitors.

Theories (2) and (3) are relevant for many operators. To service companies, high specialisation is a stronger source of advantage than a combination of resources and competence.

Theory (2) is probably preferable for smaller dimensions operators, which are trying to differentiate themselves, not being able to compete on a mix of resources and competences.

Instead, IOCs gain advantage through competitive technology and large amount of resources (theory 3).

Theory (4), emphasising the management's role as motivating, is probably applicable to single moments of the business, but we do not consider it as relevant for this industry.

We definitely consider theory (1) as the one describing competitive advantage for IOCs. In the oil&gas market, the main concern for IOCs is replacing their reserves. In order to replace reserves, IOCs must be able to collaborate with governments, and maintain a high technological level being in this way able to offer top-quality solutions both in terms of environment, local society and costs to NOCs, which are obligatory partners for accessing reserves.

The main competitive forces in the oil&gas market that affect IOCs are the lack of reserves and the relative bargaining power of suppliers, and fast-paced technological development.

These forces result in competitive strategies such as increasing the number of suppliers (to reduce dependence on single ones and their bargaining power), and gaining or keeping learning and knowledge leadership.

These strategies are then influenced by other competitive forces and strategies, and can arrive to a compromise with government in order to overcome strong regulations, or to meet the expectations of stronger competence that the local NOC has toward the IOC. The result of these

complementarities brings to strategic alliances. Strategic alliances are an implementation of competitive strategies.



Fig 4, Strategic Alliances as Competition Strategy Implementation

The oil&gas industry is characterised by high investments and high technology. It is

- A very complex market, influenced by strong swing in oil price, different kind of producers, heavy environmental-related issues, a large variety of products, and an extremely sophisticated production chain, which starts from very demanding phases of exploration.
- A turbulent market, depending on the availability of the raw material, which is often controlled by Countries that manage them in a political way, causing uncertainty in the supply of the main resource. Technology develops at a fast pace, leaving behind those companies that are not keeping themselves updated.

Oil&gas industry is therefore characterised by high rivalry. Rivalry is one of the forces active in a market, and it is influenced by a combination of four other main forces, as illustrated in fig 5.

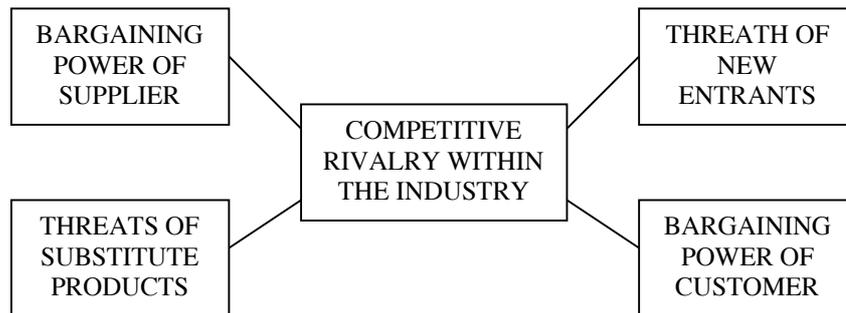


Fig 5, Porter's Forces Analysis

We will analyse the forces within the oil&gas market, basing ourselves on Porter's Forces Analysis model as studied in "*Strategic analysis of Statoil's international competitiveness*" of Ellefsen Aubert and Kjølmoen Frigstad's, masterthesis from 2007.

Ellefsen Aubert and Kjølmoen Frigstad conducted an analysis of Porter's model for the O&G industry, coming to the following conclusions about relevant forces within the market.

Threats of substitute products and *bargaining power of customers* are very low. It is known from energy debate that there are few alternative products to oil and gas.

Nuclear presents many problems at level of safety and waste disposal. Hydrogen and solar energy have not been developed enough for commercial purposes yet. Hydrogen requires still much energy for production itself.

Differently from oil, nor hydrogen or solar energy can be stored or transported. There will therefore be no fall in the demand for oil in the next future, if not because of a fall in industrial production.

We can conclude that there is no threat coming from substitute products. Also threats coming from *bargaining power of customers* are low. In the oil&gas market, customers are too many to be able to bargain. It is enough to consider one main product of this market. Gasoline is sold through a

capillary network of stations. Each of us purchases gasoline singularly at the gasoline station. The producer also owns the distribution network. It means that each producer sells to million of customers that have to connection between themselves as customers of that product. Each customer buys only a minimal part of the total market. Since there is no coordination between customers for choosing on brand of gasoline or the other, prices of all brands are similar also in their swings, and it is not possible to find an alternative product to gasoline, customers have no bargaining power.

An important factor, which is getting stronger, is the *threats of new entrants*. The traditional operators in the oil&gas market are International Oil Companies (IOC). In the past, a new entrant would have been another IOC, which made the possibility of potential new competitors very low, because of the high capital and complexity of resources and competence needed in this market.

In more recent times, two new kinds of operator have grown up to the level of being able to threaten IOCs as competitors.

National Oil Companies (NOC) were originally established by reserve holding Countries who chose to develop a local oil industry, rather than just sell the raw material to foreign operators. NOC have now reached dimensions and know-how levels, which allow them to have international ambitions at the same level as IOCs.

Another category of oil operator has become a potential competitor for IOCs. Independent Oil Service Companies, or simply “Independents” were originally meant to provide just specific services to IOCs. They have now developed good vertical connections and collaborative skills with those major companies, which buy their services.

Threat of new entrants is therefore high in oil&gas industry.

The strongest factor is probably the *bargaining power of suppliers*. Suppliers in oil&gas industry are reserve holding Countries. They can decide how much oil they want to sell, and to what price. Their bargaining power is of course depending on oil price as well. When price is high, this power gets

stronger. Oil&gas suppliers have always tried to keep oil price at an optimal level for them, controlling production and with that the quantity of oil on the market. Not all supplier Countries have joined OPEC, and oil price still fluctuates depending on many factors. Reserve holding States can also put strong requirements about environmental impact and involving of the local industry.

Another major factor affecting supply are political issues. Countries can suddenly decide to nationalise their reserves, as Venezuela, cutting all operators out of their local market and denying them access to local resources. Instability is a feature of the oil&gas market.

Competitive strategy in oil&gas will be then focused on reducing or avoiding bargaining power of suppliers and cutting potential new entrants out of the market.

Ellefsen Aubert and Kjølmoen Frigstad's conclusions show a strong competitive rivalry in the industry, mainly due to strong bargaining power of suppliers and to threats of new entrants.



Fig 6, Porter's Forces Analysis – Oil&Gas case

The first factor is IOC's main concern. Expressed in other words, it is *replacing oil reserves*. IOC's competitive strategies will focus on reaching resources and on decreasing dependence from single reserve holding Countries.

The second factor is usually NOC's main problem, especially of those ones that own very high amounts of reserves. NOCs' relative strategy consists in making use of political barriers (to be alone in exploiting their reserves) and

to developing skilled personnel (in order not to have need for IOC's competence).

Since our study has an IOC-based perspective, we will focus on bargaining power of supplier. For what concerns IOCs, the strongest force in the oil&gas market is reserve replacement. As a consequence, IOCs try to reach as many sources of commercial varieties of oil as possible. There where resources are owned and controlled by Government, collaborating with the local NOC is often a condition sine-qua-non.

Making an alliance with the local NOC **is a realisation of IOCs' competitive strategy of containing bargaining power of suppliers**. Having more suppliers means delimitate dependence from single ones, and therefore also their bargaining power. It is also a choice influenced by market conditions as protectionism or strong access regulations. If oil reserves were not controlled by governments that impose sharing operations and revenues with local NOCs, IOCs would probably make a less frequent use of alliances. Referring to our model at fig 4, bargaining power of suppliers is the competitive force, getting more suppliers is the competitive strategy, and alliance is an implementation of the strategy. At this point, we will have to enter the partner's competitive strategy "protectionism / strong regulation", which, from an IOC's perspective, is another forces present in the market. IOC's competitive strategy (reserve replacement), combined with this market force, will result in an alliance. It is of course necessary that this alliance will also fit NOC's strategy. This could happen if the NOC could benefit of IOC's competences. See analytic model at chapter 2.3.

We have already mentioned the particular connection between turbulent markets and the use of strategic alliances. **Referring to our model at fig 4, turbulence is the competitive force**, and we will see that strategic alliance is an implementation of the relative strategy.

This competitive strategy in between is, according to Newman and Chaharbaghi (1996), sustaining leadership in learning and knowledge. Turbulence in oil&gas is also caused by fast-pace technology evolution, in

addition to geopolitical issues. In these cases, it is more frequent for IOCs to search for collaboration with Independent Oil Companies, which have specific skills and knowledge. But there are also NOCs that have special know-how and that can be an interesting partner for this kind of alliances.

2.3 Analytic model

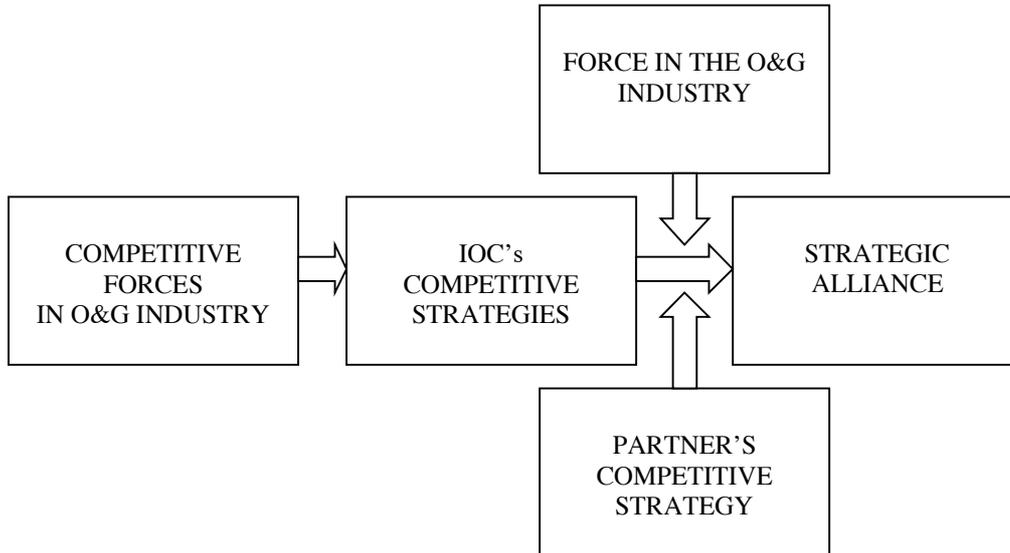


Fig 7, relations between competition forces, competition strategy and strategic alliances

The analytic model illustrates the steps from the individuation of competitive forces to the implementation of the strategic alliance.

- Competitive strategies are elaborated on the basis of the competitive forces in the market.
- There are other market forces then, which influence the realisation of competitive strategies.
- The combination of competitive strategies and market forces can suggest the implementation of the strategy through a strategic alliance.
- For being possible, a strategic alliance needs a complementary partner's competitive strategy.

3. Analysis

3.1 Presentation of the industry

The oil&gas industry is characterised by high capital, big investment, high technology and environmental impact. It is in addition a fast-moving market, where new technology and product are constantly developed.

3.1.1 INTERNATIONAL OIL COMPANIES

International Oil Companies are the largest operators in the market. They have been the first to develop competence, and are still very strong at managing big fields. They operate best on large scale. They have both technology and financial possibilities for managing big risks projects and operate in a quite high profitable way. Monetisation is one the main parts of their strategies.

Their weak point lies now in technology innovation and reserve replacement. According to Jaffe and Soligo, IOCs have “invested less in exploration and increased operating cash flow on share repurchases and dividends. Their production has declined since 1990s”, while 80% of reserves are held by NOCs.

Not investing in R&D, IOCs are losing the main competitive advantage they have always had on NOCs and the easiest way to gain access to their reserves. Less access to reserves, together with lack of R&D, means that IOCs are able to replace their reserves in an efficient way at the moment.

This means that reserve replacement and R&D are a concern of the entire market.

3.1.2 NATIONAL OIL COMPANIES

National Oil Companies are State owned companies. They have privileged access to National reserves and, differently from IOCs, do not have

monetisation as main goal of their business. A NOC operates in order to bring benefit to the Country, giving support for local economy and often protecting the environment of the territory.

NOCs have traditionally had a lower technology level than IOCs, and used to giving them access to national resources in order to make use of higher competence and, through the same collaboration, building up skilled personnel.

Many NOCs have been evolving from being entities at exclusive service of governments, to partially private companies. It is the case of Statoilhydro. It is interesting to notice that Eni and Total were originally NOCs.

IOCs and NOCs are the main operators of the market. The second ones hold most reserves, while the first have knowledge and large-scale leadership. NOCs are stronger in terms of reserves, while IOCs are stronger at competence level.

3.1.3 STRATEGIC ALLIANCES IN THE OIL&GAS INDUSTRY

The competitive force affecting IOCs is the bargaining power of supplier. Suppliers have a stronger bargaining power when they are few and when there is scarcity of the resource they own.

On IOCs' side, the competitive strategy consists in enlarging the number of their suppliers, reducing in this way dependence from single ones. In practise, this strategy is implemented

- Expanding operations to new/more reserve holding Countries
- Investing on innovation
- Investing on exploration of new areas

Expanding operations to new/more reserve holding Countries requires the permission of Countries' governments. We have already illustrated that States protect their reserves, their local industry and environment, and put many conditions for operating on their territory. Strong regulations can be for example imposing IOCs to establish local offices, creating work places for local inhabitants, to use local sub-suppliers, providing support for local economy, and to respect a severe environmental legislation.

In some cases, reserves holding Countries do not have competence and financial resources enough to manage oil production by themselves. In these cases, IOCs have usually easy access to reserves. Some Countries have top-skilled National Oil Companies, or even have an entirely developed oil industry. It is less likely to happen that IOC can operate in these Countries, except if they accept to collaborate with the local oil industry. In other words, strategic alliances with NOCs or with another representative of local oil industry are often the only way IOCs can implement their competitive strategy "Expanding operations to new/more reserve holding Countries".

Investing in innovation is essential in a high-velocity market based on high technology. In addition, innovation is a value also NOCs are interested in, and that therefore helps IOCs making strategic alliances with them. In the same time, it is easier and faster to innovate working together with others, rather than working alone. So, also the strategy of innovation needs strategic alliances for being realised.

Investing in exploration of new areas is a combination of expansion of reserves and investing in innovation, and, as a consequence, it also goes through strategic alliances. An example of exploration of new areas is the study case Goliat.

FAST-MOVING MARKETS AND STRATEGIC ALLIANCES

At this point we need to explain another characteristics of the oil&gas market, which IOCs consider when planning strategy.

The oil&gas market is a fast-moving market. It means that market values change continuously. Also this force requires an appropriate strategy. When things change so fast, it is clear that waiting for the first-mover to show us what to do is a losing strategy. In a market where things change all the time, and where there is always the risk to take decisions too late, the right competitive strategy is being the first-mover, bringing new values (new technology, new products, new policies) into the market.

Newman and Chaharbaghi describe the relation between turbulent markets and strategic alliances and explain that, in order to gain competitive advantage, these must be part of an *offensive* competitive strategy.

Strategic alliances can be the realisation of a defensive or offensive competitive strategy. Offensive strategies aim to the creation of new markets values. We agree with Newman and Chaharbaghi that offensive strategy is necessary in a fast-moving market.

“The real competitive strategy is about doing new things rather than focusing on optimising the way things are currently done”

Strategic alliances should be part of an offensive strategy, because only in this way they can bring to competitive advantage. Newman and Chaharbaghi warn against other uses of alliance in fast-moving markets.

“Strategic alliances are often used as the next step for survival. That is, if the organisation cannot compete effectively then it has to become partner dependent. Although this approach may prolong life, it will not lead to sustainable competitive advantage”(Newman and Chaharbaghi, *“strategic alliances in fast-moving markets”* copyright 1996, published by Elsevier Science Ltd, page 850).

They express scepticism about optimisation mindset in fast-moving markets, because competitive advantage can be sustained only through a continuous destabilisation of market values in such markets. They consider learning and knowledge leadership as the scope companies make strategic alliances for. In other words, the parts of the alliance would be interested in learning from each other, avoiding the two risks of remaining isolated in a hopeless effort of internal optimisation, and of being left behind in a continuously changing market.

In practise, IOCs must constantly develop

- Supplier network, expanding operations to new Countries
- New technology, for more efficient exploration and operations, including environmental-oriented technology.

Developing new technology has a double purpose. The first one is maximising resources and making use of not conventional oil reserves.

Developing new technology to maximise resources exploitation is a way of enlarging available resources. Today, most oil fields are exploited only to a minimal part. New pumping methods could multiply resources just starting from already available resources. This is called “Enhanced oil recovery” (Shell 2006). It will give the possibility of getting more out of already available reserves. It is a short-term strategy though (Jaffe), because it is not sufficient for covering reserve replacement.

New technologies could give the opportunity to make use of not conventional oil reserves. Today the main raw materials in the market are the two varieties Brent and WTI, quite liquid and with a low sulphurous content. Modern production technologies are focused on these two kinds of oil, but the planet is still full of thicker and more sulphurous varieties of oil. Being able to commercialise them would mean not anymore being depending on Brent and WTI resources, enlarging operations to those new materials.

The second purpose for innovation is related to strategic alliances. Firms that are competence leaders can offer their know-how to reserve holding Countries in exchange to access to national reserves, of course through collaboration. Competence is not only a competitive advantage in itself, but it also makes of an IOC a potential partner for NOCs. In other words, innovation gives competence leadership, and competence is the added value NOCs expects from IOCs.

Practising a strategy of constant destabilisation of market values is the competitive strategy that allows companies to gain competitive advantage in a fast-moving market like oil&gas.

We must add that another reason of turbulence of the market are the geopolitical events that can affect raw material supply dramatically. Again, optimising relations only with some suppliers can be the end of resource availability, in case of political changes in the Countries of those suppliers. In order to reduce the risks coming from political instability, it is necessary not to concentrate on few suppliers, but getting as many as possible.

We have already explained Newman and Chaharbaghi's theory about Strategic alliances in fast-moving markets. By themselves, companies cannot generate competence enough for staying competitive. Joining other companies is the only way to stay updated. Companies that follow a strategy of internal resources optimisation are destined to lose competitive advantage both at level of competence and of access to resources.

Strategic alliances are therefore necessary to oil companies for gaining competitive advantage, and the reason for this is the turbulence of the market. In such a market, optimisation is a losing strategy because it is too slow. When trends change fast, the only way to stay updated is being close to competitors, sharing and exchanging competence with them, and keeping a supplier network as various as possible.

Also Thomson, Strickland and Gamble define strategic alliances as advantageous in high-velocity markets, as we said in 2.1. They also confirm our theory, i.e. that strategic alliances are an implementation of strategies for

competitive advantage for IOCs in the specific market of oil&gas. At page 165, they indicate the reasons company racing for global market leadership needs alliances to.

“Get into critical Country markets quickly and accelerate the process of building a potent global market presence”, which we previously defined as “developing supplier network”, but that also refer to the importance of a large distribution network. We have explained its importance in chapter 2.2 about the bargaining power of customers.

“Access valuable skills and competencies that are concentrated in particular geographic locations”, which corresponds to “innovation” or “technology development”

The competitive advantages IOCs want to gain are leaderships of resources and innovation. Strategic alliances are the implementation of the relative competitive strategies.

- Strategic alliances can be the only way to get access to resources.
- For what concerns innovation, strategic alliances are the only possibility that allows the firms to innovate fast enough to keep the pace with the market.

RELATIONAL SKILLS AND STRATEGIC ALLIANCE

In order to get concessions for exploring and operating, an oil company shall bring added value to the reserve holding Country.

Beside concession payments and part of the revenues, these Countries are interested in reinforcing local economy and keeping environmental impact low.

Oil industry has always represented a harm for the environment, and the presence of an oil platform, of an oil tank or of an oil pipe carry the risk of damages on the environment, both on a constant basis and in case of accidents. It is important that oil companies offer solutions that minimize

environmental impact. Ignoring it and choosing solutions economically convenient on the short term will damage the company, because it will lose chances to get new concessions from those Countries, which see a value in protecting environment.

Offering environmentally friendly solutions does also mean that the company shall not just apply its own technology, but also keep an open dialogue with local communities. An environmentally friendly policy cannot be such without listening to those who know the place and live in it. Companies shall show that inputs from the Country and the local communities are considered.

Companies are supposed to bring solutions that respect the indications of local communities. If an area is indicated as especially sensitive, the company should propose new solutions, which guarantee the preservation of the area.

Being able to offer environmentally friendly solutions is a part of an oil company's strategy for staying competitive, because it enhance the possibilities of making alliances with more suppliers, reducing the dependence from single ones, and therefore their bargaining power.

Governments are likely to choose operators, which show tendency to involve local service companies, because this means providing support and development for the national economy.

Respecting regulations, keeping an open dialogue with local communities and involving local economy are all collaborative skills, and are necessary to those firms that need to collaborate with others, like IOCs need to make alliances with local NOCs.

In the last decades, NOCs have been reluctant to open their reserves to IOCs. Nationalism and Protectionism have been a common policy, which have often brought to swing in oil supply on the world market. IOCs approach and behaviour was in part responsible for this reaction of producing Countries.

IOCs' strategy should therefore include attention for the needs of the Countries they are interested to operate in. IOC's (Jaffe). Nationalism and Protectionism are not the only obstacles to cooperation between IOCs and NOCs. Other factors, which triggered NOC's interest for opening to IOCs, have declined. The expertise of IOCs is strongest when working with big oil fields, which there has been scarcity of in the last decades. Newly discovered fields are smaller than old ones, and when fields are smaller, the NOC can find more convenient to make use of service companies, rather than opening to IOCs.

It is crucial that IOCs learn to collaborate with producer Countries adding real value to their operations (Shell 2006). We have seen that there are many factors that could decrease IOC's chances to make alliances with NOC. IOCs shall develop relational skills as part of its competitive strategy.

3.1.4 IOCs' and NOCs' STRATEGIES

Analysing the market, we see that reducing bargaining power of suppliers is mainly a concern of IOCs, which barely hold 10% of world reserves, while NOCs, strong of their national reserves, are more concerned about keeping competitors away from them.

When analysing strategic alliances, we must analyse which strategies bring partners together, and who the partners are. We have already concluded that IOCs have certain weaknesses and strengths, while other operators have other ones, and we understand that it is complementary needs and goals bringing partners together.

We refer to www.npd.no, the website of the Norwegian Petroleum Directorate, and more precisely to the production figures' page <http://www.npd.no/engelsk/cwi/pbl/en/index.htm>.

There are about 550 production licences on the Norwegian continental shelf. We considered licences from 200 to 299. We sorted the here-included 57 active licences in 7 groups, according to the type of owner(s).

- one IOC
- one NOC, in this case Statoil
- one or more Independent Oil Companies
- a partnership of IOC and NOC
- a partnership of IOC and Independent Oil Company
- a partnership of NOC and Independent Oil Company
- a partnership of IOC, NOC and Independent Oil Company

Data are shown in Appendix 1.

As a result, we can see that the majority of licences sees a combination of more companies. In 51 cases the licence is object of an alliance, while 100% ownership is limited to only 6 cases.

We can notice that only in one case an IOC has 100% ownership, while Statoil counts 5.

Among alliances, we can see that there are no cases of IOCs operating together, while Independents join in 6 cases. We have chosen not to consider licences 248, 248b and 277, where only Statoilhydro and Petoro are present, as NOC-NOC cooperation.

LICENCE OWNER(S)	QUANTITY OF LICENCES	
IOC	1	6
NOC	5	
Independent Oil Companies	6	51
IOC and NOC	14	
IOC and Independent Oil Company	6	
NOC and Independent Oil Company	12	
IOC, NOC and Independent Oil Company	13	
ACTIVE LICENCES BETWEEN NR 200 AND 299		57

Table 1, Ownership types for Norwegian Continental Shelf licences 200-299
 Elaboration from Norwegian Petroleum Directorate data www.ndp.no

IOCs need resources. They are therefore necessarily interested in collaborating with NOCs, which own resources. The reason why also NOCs are willing to collaborate with IOCs is that such alliances are a solution for NOCs' competition strategy as well, which we will not analyse further here.

Collaboration with Independent Oil Companies actually consists in outsourcing. Quoting Jaffe and Soligo (Jaffe and Soligo, "The International Oil Companies", The James A. Baker III Institute for Public Policy, Rice University, November 2007, page 36) "*IOCs have become more like general contractors, coordinating the operation of a number of suppliers who themselves are the ones who undertake seismic work, analyse data, provide drilling rigs and crews and a host of oil field services. The larger IOCs also serve the function of bankers...*"

3.2 Presentation of ENI and Statoilhydro

3.2.1 ENI

Eni has been one off the so-called “Seven Sister” that used to dominate oil market in the past. These are today BP, Chevron, Conocophillips, Exxonmobil, Royal Dutch Shell, Total and Eni.

According to website www.eni.it, Eni is present in 70 Countries, has about 79,000 employees, and “*operates in the oil and gas, electricity generation and sale, petrochemicals, oilfield services construction and engineering industries.*”

In 1929 AGIP (Azienda Generale Italiana Petroli – Italian General Oil Company) was established. In 1956 the Italian Government incorporated it in a new company, still of State ownership. This company was ENI (Ente Nazionale Idrocarburi).

During the 50’ies, Eni launched a new way in approaching reserves holding Countries, which involved them in the management of their oil resources (see Eni’s website at page http://www.eni.it/en_IT/company/history/the-steps/the-50s-60s/the-50s-60s.shtml), in contrast with the common policy in use at that time.

Eni has been privatised during the 90’ies and it is now a stock company. The Italian Government still has the golden share of Eni.

Compared to the Big Five (BP, Chevron, Conocophillips, Exxonmobil, Royal Dutch Shell), Eni has a few specific characteristics.

First of all, **it was actually started as a National Oil Company**, and kept this status until about fifteen years ago.

Second, **it has always had scarcity of reserves** compared to the dimensions of its operations, being Italy very poor of raw materials.

Third, Eni has always had an **inclusive way of approaching reserves holding Countries**, launching the partnership model in the relations between supermajors and producing Countries. The intuition of this innovative way of

making business in the oil industry is attributed to Enrico Mattei, first president and then CEO of Eni.

“Eni wouldn’t exist without the stable alliance developed in forty years of steady work in Egypt and with Egypt. The same applies in Angola, Congo and, above all, Nigeria. Mattei stood for extremely modern entrepreneurial thinking and action: he understood that an industry with the structural characteristics that I mentioned above (.i.e, “The oil industry is unique in that a key component of its production process is bound to run out sooner or later, its resources being limited rather than unlimited”), needed stable and long- lasting relationships with producing countries in order to operate. Eni is perhaps the most important company currently operating in Nigeria because it managed to establish stable relationships with that country, irrespective of its political regime.”

From “Eni’s Way, Monografie”, at [http:// www.eni.it/ attachments/ media/ magazine/ monographies/ secolo_mattei.pdf](http://www.eni.it/attachments/media/magazine/monographies/secolo_mattei.pdf)

In Norway Eni is present as Eni Norge AS, and has 52 production licences, of which 15 as operator. To make a comparison, Conocophillips has 39 licences of which 14 as operator, and Total 78, 15 as operator.

The source is <http://www.npd.no/engelsk/cwi/pbl/en/comp/all.htm>, the Norwegian Petroleum Directorate. Data are shown in Appendix.

Of these 52 licences, we notice the presence of

- Statoilhydro in 46
- Total in 20, where Statoilhydro is always present
- Exxonmobile in 14, where Statoilhydro is always present
- Conocophillips in 8, where Statoilhydro is present in 6 cases
- Several Independents

We can notice that Eni’s trend (for what concerns the Norwegian Continental Shelf) is collaborating with Statoilhydro.

Collaborating with Statoilhydro means gaining access to reserves. Collaborating with IOCs could mean sharing risk, but since Statoilhydro is

always present also when another IOC is in the group, we understand that the purpose is the alliance with Statoilhydro for the access to reserves.

There are only 2 cases of alliance with an IOC in absence of Statoilhydro.

3.2.2 STATOILHYDRO

Statoilhydro is the result of the merge between Statoil and Hydro, which took place in 2007.

“Statoil and Hydro have been the most important players in the Norwegian oil industry, with proud traditions of expertise and innovation stretching back to the early 1970s. (...)Hydro's history began in 1905 (...) At the time of the merger, Hydro was operator for 13 oil and gas fields on the Norwegian continental shelf. (...) In 1972, the Norwegian State Oil Company, Statoil, was formed, and two years later the Statfjord field was discovered in the North Sea. In 1979, the Statfjord field commenced production, and in 1981 Statoil was the first Norwegian company to be given operator responsibility for a field, at Gullfaks in the North Sea. At the time of the merger, Statoil was operator for 39 oil and gas fields on the Norwegian continental shelf.”

(Quoting from <http://www.statoilhydro.com/en/aboutstatoilhydro/history/pages/default3.aspx>)

Statoilhydro is present in 40 Countries, counts about 29,500 employees, and is a leader in operation involving deepwater technology.

Statoil was gradually privatised between 2001 and 2004. Today the Norwegian State is the main owner of Statoilhydro owning 67% of the shares.

Statoil and Hydro have been crucial for developing industry in Norway. If Hydro already existed when the first oil was found, Statoil was established with the specific purpose of developing an industry around the new resource, aiming to reaching real expertise and possibility of future business and activities independent from Norwegian oil resources. Both Statoil and Hydro have expanded their operations abroad, and reached top-level competence. When merging, the two companies have put together their business abroad, providing the new Statoilhydro with a larger network, with the clear goal of expanding abroad, not being an exclusively nationally oriented NOC, but a rising NOC, with many traits in common with the still larger IOCs.

Statoilhydro has 228 production licences on the Norwegian Continental Shelf, of which 172 as operator.

3.3 The cooperation project Goliat

The Oilfield Goliat is located in the Barents Sea. Goliat's production licences are number 229 and 229b. Eni is the operator with 65%. Statoilhydro is the other licensee with 35%.

Quoting from [http://www.eninorge.no/EniNo.nsf/page /A0CFFD6ED1DB84E4C12574E60050E73C?OpenDocument&Lang=english](http://www.eninorge.no/EniNo.nsf/page/A0CFFD6ED1DB84E4C12574E60050E73C?OpenDocument&Lang=english)

“Goliat can be the first oil development in the Norwegian sector of the Barents Sea. Although the field is relatively small, development and operation will have positive consequences for local and regional businesses and employment”

Goliat is a particularly critical oilfield due to its location. It presents environmental and technical challenges. The Barents Sea has deep seabed and hard climatic conditions that can make operations difficult. It is in addition a fragile area; it is important also for local economy that the

environment shall not be modified or polluted. There has always been a strong debate about drilling in the Northern regions of Norway, and many consider it dangerous for the environment and the local economy. This is the reason of the great attention given to Goliat by media and institutions.

Goliat can be considered as a pioneer project. If it will give good production results, and will be developed in a safe way for local society, economy and environment, Goliat could be the example for starting a more intensive exploitation of the Barents and Arctic area.

Statoilhydro and the Norwegian government have always protected the interests of Norway through rigid environmental regulations, and providing that oil-related activities brought work to local companies. In this cooperation project, Eni has shown to share these concerns.

According to Eni's and Norwegian press, decisions have been taken together with local authorities, coming to solutions such as the establishment of the headquarter in Hammerfest, which will create work places for the locals. In addition, Eni collaborates with IRIS on environmental research. IRIS is the International Research Institute of Stavanger. Eni is also working together with Statoilhydro at many environmental-related projects.

Quoting from Eninorge's website at <http://www.eninorge.no/EniNo.nsf/page/1893997362735D62C12574E600511DD3?OpenDocument&Lang=english>
“By July 2008, 20 to 30 different projects have been identified and initiated with an eye to make oil spill preparedness more efficient, especially during operation in cold and dark conditions. (...) The last of these projects also involves a local fisherman and is part of Eni Norge's strategy for building up coastal oil spill preparedness for the long-term Goliat production period. In this connection, Eni Norge wishes to enter into collaboration with local fishermen in order to make use of unique local maritime know-how and the resources that their vessels represent.”

Goliat is planned to start production in 2013. It has been decided that the platform will be of the FPSO type (floating), and the contract for the

construction has been awarded to Sevan Marine, which, as the spirit of the collaboration with Statoilhydro would suggest, is a Norwegian company.

An interesting issue about Goliat is its electrification connection. Previously, it had been agreed to use a cable from shore for electrification, in order to reduce CO2 emission on the Norwegian Continental Shelf. In May 2009 Eni communicated the decision of postponing electrification to a second phase with strong reaction of environmental associations, but with the approval of the Norwegian Government, which announced that Goliat will be receive electricity from shore from 2017. (from Dagens Næringsliv, “Grønt lys for Goliat” <http://www.dn.no/energi/article1665882.ece>, published 11.5.09). Apparently, environmental issues lost priority.

The position the Norwegian government took shows that environmental criteria are important, but that the priority is discovering new reserves. Northern areas of Norway and Barents Sea have a big potential, and are actually considered as a “locked” reserve that can invert the declining tendency of production in the Norwegian Oil Industry. Representatives at the Norwegian Parliament have recently reported that oil production in 2014 will have decreased 50% since 2000. Helping companies exploring and producing in new areas in order to find more oil would then be absolutely necessary. (from Dagens Næringsliv, “Norges låste milliardformue“ <http://www.dn.no/energi/article1643388.ece>, published 5.4.09)

Goliat is one of the few examples of an IOC carrying on exploration activities in Norway. Supermajors are discouraged from taking the risk of exploring the Norwegian Continental Shelf by the fact that production is actually impossible, or at least difficult, in the areas that have high potential, because of regulations denying any industrial activity there. It is the case of the coast in front of the Lofoten Islands and Tromsø, and more north in the Barents Sea.

(Dagens Næringsliv, “Oljegigantene sitter på gjerdet“ <http://www.dn.no/forsiden/article1411238.ece>, published 2.6.08)

These areas are remaining unexplored, with big damage for the future of the Norwegian oil industry, because IOCs judge exploration too risky in this case. In addition to the risk typical of any exploration activity, these areas have the additional risk of being probably impossible to operate in because of very strict regulations.

3.4 The strategy of ENI

Eni's official website states

“Eni's key objectives are to deliver industry-leading growth and attractive shareholder returns over both the short and long-term”

The business strategy and targets for growth strategy is illustrated in the following way.

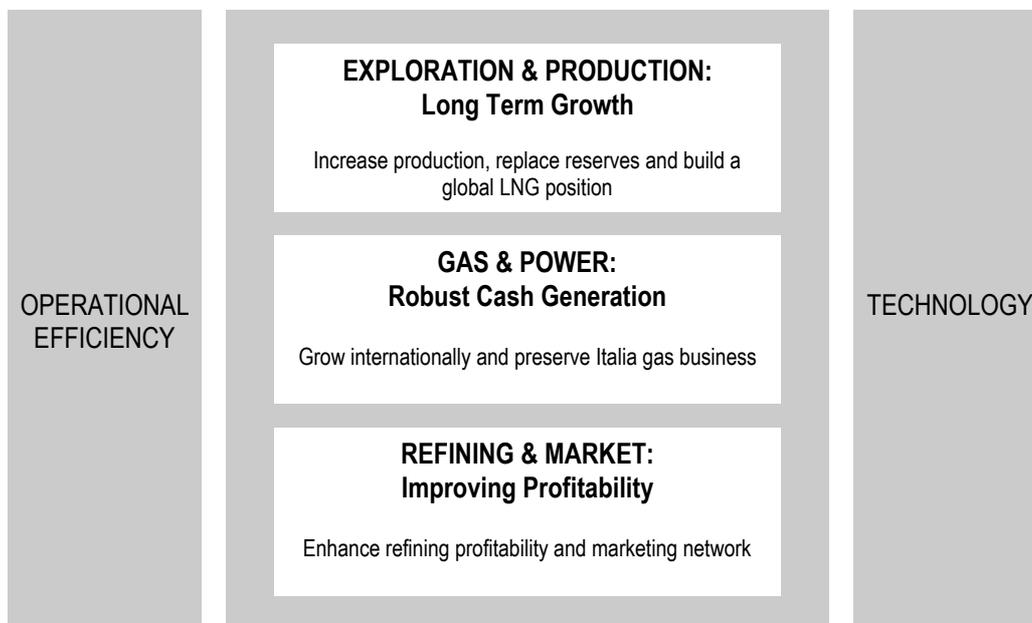


Fig 8 Eni's business strategies and targets for Growth Strategy, from www.eni.it
Available at http://www.eni.it/en_IT/investor-relation/strategy/strategy.shtml

Increasing production, replacing reserves and building a global LNG position is a typical IOC's strategy, and it has already been analyzed in the previous chapters.

Growing internationally and preserving Italy's gas business is a strategy for generating cash. In other words, it means selling more, expanding Eni's distribution network and finding new markets to place products in. Generating cash is vital because exploration and production activities require big capital.

Enhancing refining profitability means developing technologies for improving production process and reducing its costs. Enhancing marketing network means expanding operations to areas and products where it is profitable, and cutting them where they are not profitable.

The two pillars of these strategies are of course operational efficiency and technology.

So far, Eni's strategies are similar to any IOC's strategies, with the usual emphasis on reserve replacement.

In the past, what could be noticed as a difference between Eni and other IOCs, was a major propensity to taking risks. At the end of the '50ies, Eni started developing a network in Africa, when no other major wanted to operate there.

“In Africa, supermajors were relatively weak, because they did not believe that that continent would have ever reached freedom or economy development. They did not want to invest anything more than the strictly necessary for maintaining their plants, often not even that” (free translation from Marcello Colitti's *“Eni”*, 2008, Egea)

About 50% of Eni's exploration, development and production activities are concentrated in Africa still today (http://www.eni.it/en_IT/company/

operations- strategies/ exploration- production/ activities-world/explo-business-world.shtml).

On the Norwegian Continental Shelf, IOCs have been carrying on few exploration activities in 2009. In the period 2006-2009, Esso counts 10 activities, Eni other 10, BP, Conocophillips and Shell 6 each. In the same period, Statoil has counted 67 and Hydro 36.

(Dagens Næringsliv 02.06.2008 <http://www.dn.no/forsiden/article1411238.ece>)

Goliat is one of the few cases of IOC carrying on exploration activities on the Norwegian Continental Shelf. It is an example of Eni's strategy of taking the initiative and the risk of investing there where other IOCs choose not to. The reason why Eni differentiates itself from other IOCs is that it was funded and is based in Italy, a Country without own reserves and without political connections to reserve holding Countries.

In order to compete with other IOCs, Eni must take bigger risks than them in explorations and networking with the scope of replacing reserves.

3.5 The relations between competitive strategy and strategic alliance in ENI

Eni's use of strategic alliances is a consequence of its strategy, which we explained in the previous sub-chapter.

As part of its reserve replacement strategy, Eni makes alliances and takes risk (in exploration activities as Goliat) that other IOCs do not need to take. Compared to other IOCs, Eni has traditionally been in a disadvantaged position for resource access and struggled for finding solutions. As the

development of the network in Africa, also the policy of searching for the collaboration of producing Countries is simply part of that strategy.

We find an entire paragraph about the importance of partnership for Eni in the 2006 annual report.

New partnership models and access to oil reserves

Partnerships with producing countries, infrastructure and innovation will play a basic role in guaranteeing the security of supplies, which is the main criticality of the world energy system. In fact, at the current state of knowledge, total recoverable hydrocarbon reserves amount to approximately 5,000 billion barrels and will allow to meet energy requirements for over 100 years.

(...)

Eni is engaged in maintaining high rates of production growth while guaranteeing the sustainability of its business in the medium- to long-term through the integral replacement of reserves produced. Eni's activities are oriented to the exploration of basins located in Africa, the Barents Sea, the Middle East and the Gulf of Mexico and to the development of fields with extended productive life in West Africa, North Africa and Kazakhstan.

(...).

In this context, Eni is constantly engaged in improving its models of cooperation with producing countries in order to overcome the current criticalities of the global energy system. Eni's strategy of cooperation with producing countries will be characterized by a dialogue with partners. Eni is ready to promote new strategic alliances with producing countries based on the joint development of integrated projects aimed at reaching the targets of energy and economic development set by each country.

From Eni's annual report 2006, at [http://www.eni.it/ attachments/ publications/ reports/reports-2006/annual_2006.pdf](http://www.eni.it/attachments/publications/reports/reports-2006/annual_2006.pdf)

Eni was the first IOC that searched for collaboration with producing Countries. It can be defined a strategic alliance pioneer.

During the '50ies, Eni's first president Enrico Mattei had the intuition that Eni could gain competitive advantage developing close connection to

producer Countries. The new policy Eni introduced should not be seen as an attempt of fair trade with Countries that at that time, as often also today, were very poor and did not get any benefit from IOC's operations, beside payment of fees.

On the contrary, this new approach was based on a very pragmatic competitive strategy of Eni's for sustaining its business and gaining its space in a market dominated by the supermajors.

“Mattei understood that in order to ensure Eni, the majors’ “poor cousin”, a competitive lead, thanks to the atypical features of the oil industry mentioned above (i.e., “The oil industry is unique in that a key component of its production process is bound to run out sooner or later, its resources being limited rather than unlimited”), an organic link between producing and consuming countries was needed. Eni should develop closer ties between production, manufacturing and consumption not defined by the domineering policy of producing countries.”

From “Eni's Way, Monografie”, at [http:// www.eni.it/ attachments/ media/ magazine/ monographies/ secolo_mattei.pdf](http://www.eni.it/attachments/media/magazine/monographies/secolo_mattei.pdf)

The factor that made the difference between Eni and the other supermajors was that Eni was the Italian NOC, and that Italy has far too little oil&gas reserves to sustain Eni's activity. The other supermajors were American, English or French, and had easy access to big oil reserves. These supermajors had an evident competitive advantage consisting in their reserves, and had no interest in changing a situation where they had easy access to the resources on their own territory (American IOCs) or in colonies or former colonies.

Eni did not have the same strength. On the contrary, it had a serious weakness. These internal strength and weakness of Eni's brought to a strategic plan aiming to turning its weakness (lack of own oil) into its strength. It was in this way that Eni started approaching reserve holding Countries in a collaborative way, and experiencing that partnership in oil&gas, especially when resources are scarce, gives more benefit and growth than competition.

4. Conclusions, limitation and suggestions for further research

In the oil&gas industry, collaboration brings more benefit and growth than competition.

IOCs collaborate with local governments through NOCs with the main purpose of gaining access to important reserves.

A strategic alliance is also the occasion of combining the competence of two or more companies, helping them to innovate.

Innovation through alliance has also the advantage of being a faster process than innovation by optimisation of internal resources. In a fast-moving market like oil&gas, the velocity factor in innovation is a clear competitive advantage. In the same way as it helps innovation, strategic alliances can help the development of new products and new networks.

We have not investigated further collaboration between different kinds of companies than IOC and NOC. Usually, literature mentions these two as parts joining in alliances. The reason for this is probably that among the motivations behind IOC-NOC alliances there is the big question of reserve replacement, which is a crucial one for the entire market, and that is at the centre of debate at them moment because of the reserve decline at world level.

Both IOCs and NOCs make alliances with Independent Oil Companies. IOCs usually do it as a simple form of outsourcing, while NOCs do it because Independents can be easier to deal with than IOCs. An Independent is a good provider of technical solutions, very often at the same level as IOCs. *“While the oil majors want to own rights to the reserves they are developing and take a share of profits in line with market value of the oil produced, oil services companies are happy to take a fixed fee for the service they provide and lay no claim to the resources”* (KPMG, *“Key Issues for Rising National Oil Companies”*, June 2008, page 8). Independent could be a threat for IOCs,

because they could take away from them the opportunity of making alliances with NOCs. This could be an interesting subject for further studies.

As a second suggestion, we propose a question about IOC's investment in innovation. The fact that Independents are replacing IOCs as partners for NOCs could suggest that IOCs are losing the competitive advantage of being competence and/or large-scale leaders. Data showing that IOCs have been investing less in innovation in the last years can be found easily. This phenomenon can have different reasons, internal to IOCs or related to an evolution of NOCs. In any case, it could bring to major changes in the market.

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6. Appendix

Appendix 1

Elaboration of data from www.npd.no, Norwegian Petroleum Directorate.
Production licences from nr 200 to nr 299, Licensees for each licence sorted according to the type of owner(s).

The operator is in bold.

Petoro has been considered as a neutral element.

LICENCES WITH ONE TYPE OF OWNER

Licence nr

297	bg norge as			
212c	statoilhydro petroleum as			
212d	statoilhydro petroleum as			
213	statoilhydro petroleum as			
228	statoilhydro petroleum as			
269	statoilhydro petroleum as			
256	aker exploration as	petoro as	rwe dea norge as	norwegian energy company asa
270	endeavour energy norge as	vng norge as	rwe dea norge as	
274	dong e&p norge as	bayerngas produksjon norge as	wintershall norge asa	norwegian energy company asa
275cs	dong e&p norge as	bayerngas produksjon norge as	wintershall norge asa	norwegian energy company asa
289	dong e&p norge as	talisman energy norge as	gdf suiez e&p norge as	faroe petroleum norge as
299	talisman energy norge as	dong e&p norge as		

Appendix 1, Table 1, Norwegian Shell licenses 200-299, presence of IOC, NOC and IndOC separately.

LICENCES OWNED BY IOC AND NOC

201	eni norge as	statoilhydro petroleum as		
209	statoilhydro petroleum as	petoro as	A/S norske shell	exxonmobil e&p norway as
211	total e&p norge as	statoilhydro petroleum as	eni norge as	
211b	total e&p norge as	statoilhydro petroleum as	eni norge as	
218	statoilhydro petroleum as	exxonmobil e&p norway as	conocophillips skandinavia as	
226	statoilhydro petroleum as	eni norge as		
227	statoilhydro petroleum as	eni norge as		
229	eni norge as	statoilhydro petroleum as		
229b	eni norge as	statoilhydro petroleum as		
237	petoro as	statoilhydro petroleum as	eni norge as	total e&p norge as exxonmobil e&p norway as
255	A/S norske shell	petoro as	statoilhydro petroleum as	total e&p norge as
257	statoilhydro petroleum as	exxonmobil e&p norway as	total e&p norge as	
263c	statoilhydro petroleum as	total e&p norge as	petoro as	eni norge as
275	total e&p norge as	conocophillips skandinavia as	eni norge as	statoilhydro petroleum as petoro as

Appendix 1, Table 2, Norwegian Shell licenses 200-299, presence of IOC and NOC.

LICENCES OWNED BY IOC AND INDEPENDENT OIL COMPANY

203	marathon petroleum norge as	conocophilips skandinavia as	lundin norway as
208	dong e&p norge as	petoro as	A/S norske shell
259	eni norge as	aker exploration as	
264	eni norge as	conocophilips skandinavia as	petoro as
274bs	bg norge as	dong e&p norge as	
292	bg norge as	lundin norway as	

Appendix 1, Table 3, Norwegian Shell licenses 200-299, presence of IOC and IndOC

LICENCES OWNED BY NOC AND INDEPENDENT OIL COMPANY

230	statoilhydro petroleum as	gdf suiez e&p norge as	
231	statoilhydro petroleum as	gdf suiez e&p norge as	
232	statoilhydro petroleum as	gdf suiez e&p norge as	
242	statoilhydro petroleum as	det norske oljeselskap asa	bayerngas production norge as
248	statoilhydro petroleum as	petoro as	
248b	statoilhydro petroleum as	petoro as	
263	statoilhydro petroleum as	bayerngas production norge as	
263b	statoilhydro petroleum as	bayerngas production norge as	
265	det norske oljeselskap asa	statoilhydro petroleum as	petoro as talisman energy norge as
272	statoilhydro petroleum as	svenska petroleum exploration as	det norske oljeselskalp asa
277	statoilhydro petroleum as	petoro as	
296	statoilhydro petroleum as	maersk oil norway as	

Appendix 1, Table 4, Norwegian Shell licenses 200-299, presence of NOC and IndOC

LICENCES OWNED BY IOC, NOC AND INDEPENDENT OIL COMPANY

212	statoilhydro petroleum as	bp norge as	e.on ruhrigas norge as	pgnig norway as		
212b	statoilhydro petroleum as	bp norge as	e.on ruhrigas norge as	pgnig norway as		
212e	statoilhydro petroleum as	bp norge as	e.on ruhrigas norge as	pgnig norway as		
219	Eni norge as	statoilhydro petroleum as	total e&p norge as	enterprise oil norge as		
220	statoilhydro petroleum as	hess norge as	eni norge as			
249	centrica resources norge as	statoilhydro petroleum as	total e&p norge as			
250	petoro as	statoilhydro petroleum as	A/S norske shell	dong e&p norge as	exxonmobil e&p norway as	
261	bp norge as	rwe dea norge as	statoilhydro petroleum as			
262	statoilhydro petroleum as	bp norge as	e.on ruhrigas norge as	pgnig norway as		
273	conocophillips skandinavia as	statoilhydro petroleum as	wintershall norge as	idemitsu petroleum norge as	dong e&p norge as	
281	statoilhydro petroleum as	e.on ruhrigas norge as	petoro as	conocophillips skandinavia as		
283	statoilhydro petroleum as	petoro as	conocophillips skandinavia as	aker exploration as	chevron norge as	centrica resources norge as
293	Eni norge as	statoilhydro petroleum as	idemitsu petroleum norge as			

Appendix 1, Table 5, Norwegian Shell licenses 200-299, presence of IOC, NOC and IndOC

Appendix 2

Elaboration of data from www.npd.no, Norwegian Petroleum Directorate.
Production licences with presence of Eni.

The operator is in bold.

licence nr	eni	statoil	petoro	conocoph	total	exxonmob	others
18	12,3	7,7	5	35,1	39,9		
018b	12,3	7,7	5	35,1	39,9		
44	13,1	30		41,8	15		
62	9,8	45,7	19,9		24,5		
73	5,8	58,7			29,1	6,2	
073b	7,9	58,8			26,6	6,6	
74	29,4	40,8	19,9			9,8	
74b	29,4	40,8	19,9			9,8	
91	7,9	58,1				33	
091b	7,9	59,1				33	
92	14,9	37,4			7,6	40	
94	19,6	40,9	14,9		9,8	14,7	
094b	14,8	34,5	35,6		7,6	7,2	
95	5	10	59	26			
121	14,9	57,4			7,6	20	
122	20	50					30
122b	20	50					30
122c	20	50					30
122d	20	50					30
124	10	35	27	27			
128	11,5	64	24,5				
128b	6,9	39,1	54				
134	30	46,5	13,5		10		
134b	30	64			6		
134c	30	64			6		
145	20			80			
201	67	33					
211	30	30			40		
211b	30	30			40		
219	50	25			15		10
220	15	70					15
226	31	69					
227	31	69					
229	65	35					
229b	65	35					
237	14,8	34,5	35		7,6	7,2	
259	70						30
263c	9,8	45,7	19,9				
264	40		30	30			
275	12,3	7,6	5	35,1	39,8		
293	45	40					15
312	17	59				24	

323	20	20			40		20
329	40		20				20,10,10
393	30	30	20				20
473	29,4	40,8	20			9,8	
479	19,6	40,9	14,9		9,8	14,7	
489	40	40	20				
514	20	50					30
529	40						20,20,20
532	30	50	20				
533	40						20,20,20

Appendix 2, Table 1, Norwegian Shelf Licences with presence of Eni