



KON-KRAFT

Unlocking Value
Through
Closer Relationships

**Report of the
UK-Norway
North Sea Co-operation
Workgroup**



MINISTERIAL FOREWORD

As neighbouring countries, the UK and Norway share a common interest in the North Sea and our ability to develop optimally our oil and gas reserves. We also share the foresight to see that partnerships will be crucial in the ever more competitive global marketplace. We are committed, also, to ensuring that petroleum activities take place safely in a sound environmental framework.

These facts together led us to conclude that we should actively seek ways to ensure that our resources are exploited to the full, without interference from real or perceived barriers between the two countries. Perhaps in the past some discoveries have been thought difficult to develop because of cross-border issues. Nevertheless these fields must be developed pragmatically and whilst we look to industry to maximise the value of these resources, we two governments will work together to put in place an efficient regulatory framework.

Equally, there is a commitment to ensure that future UK energy needs, especially for gas, are met, whether from the UK or elsewhere, and Norway is a logical partner in this.

At the beginning of this year, we drew together a group of visionary leaders from PILOT and KON-KRAFT and tasked them with identifying new and innovative ways to facilitate the optimum recovery of our North Sea resources. The UK-Norway North Sea Co-operation Workgroup was born in January of this year and work began apace. Not only did we set challenging objectives, we asked for a report back in time for ONS in August 2002.

We are impressed by the progress made on a number of complex, interrelated issues in this short timeframe. This is due, in no small measure, to the degree of effort and hard work devoted by all those involved.

The recommendations you will find summarised below set out a number of challenges to the UK and Norwegian Governments and industry sectors alike.

This report is an important milestone in our relationship and we look forward to many years of fruitful dialogue and action as we work towards our common goals.



A handwritten signature in black ink, appearing to read 'Brian Wilson'.

Brian Wilson

Minister for Energy and Construction



A handwritten signature in black ink, appearing to read 'Einar Steensnaes'.

Einar Steensnaes

Minister of Petroleum and Energy

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EXECUTIVE SUMMARY

Introduction

The nature and structure of business in the global oil and gas marketplace is changing. Partnerships and alliances are becoming increasingly more important and never more so than in the challenging environment of the North Sea. The UK and Norway share the bulk of North Sea hydrocarbon resources. Also shared between the two countries is an extensive border, which presents both opportunities and obstacles in the quest by each country to maximize the value of its hydrocarbon resources.

In a ground-breaking step aimed at deepening co-operation between the two countries, Brian Wilson, the UK Minister for Energy and Construction, and Einar Steensnaes, the Norwegian Minister for Petroleum and Energy, jointly commissioned a government-industry Workgroup to study options for the optimum development of the North Sea.

This report represents work completed by the UK-Norway North Sea Co-operation Workgroup, which comprised representatives who were nominated by the UK's PILOT and the Norwegian KON-KRAFT joint government-industry bodies, and was carried out between January and July 2002. It is a report to government and industry in both countries and sets out mechanisms to enhance commercial co-operation around all aspects of the oil and gas industry.

Participation

In the true spirit of co-operation, the Workgroup represents interests from all tiers of the supply chain with representatives from operators, contractors and governments. In addition to the Workgroup members, a number of other industry organizations have also lent support to the work of the group through participation in sub-group activities (*listed in Appendix 4*).

Increased Value Creation

The benefits available through closer co-operation between the UK and Norway extend to all elements of the supply chain. On the one hand, co-operation and the sharing of best practice will bring greater efficiencies and cost savings whilst on the other, closer co-operation will bring new value through saved capital, operating and decommissioning costs and accelerated developments. The Workgroup has identified a co-operation prize of as much as \$2 billion; much of which represents a significant opportunity for the UK and Norwegian supplies industries.

Continued Co-operation

As joint government-industry bodies, the existing PILOT and KON-KRAFT groups are ideally positioned to facilitate continued co-operation and the sharing of good practice and experience. PILOT and KON-KRAFT will also be responsible, as appropriate, for the implementing and monitoring the recommendations from this report. Within Norway, KON-KRAFT will ensure that OLF is kept up to date.

Framework Treaty

A key facilitator for the realization of the increased value creation is the need for both governments to set in place the right framework for cross-border developments. The Workgroup recommends the creation of a new Framework Treaty within a timeframe that will facilitate cross-border opportunities and which recognizes UK demand and Norwegian supply-side drivers.

To improve the clarity of the proposed new Treaty and existing Treaties a set of guidelines should be created in parallel with the Framework discussions.

Safety

Safety is of primary importance to businesses in all industrial sectors but is ever more critical in the harsh offshore North Sea environment. The UK and Norway continue to deliver greater improvements in safety performance. The similarity of their operating environments provides the opportunity to work together to strive for a still higher level of safety performance. The existing safety groups, Step Change in Safety (PILOT) and Working Together for Safety (OLF) will strengthen their links to facilitate improvements in safety performance.

Regulatory and Other Issues

With two different sovereign regimes in place a number of barriers to closer co-operation, both real and perceived, exist. Recommendations to overcome these issues include:

- Assessment of the UK fiscal regime to the extent that they impact effective utilisation of cross-border infrastructure and optimal hydrocarbon resource development
- Providing greater confidence to Norwegian producers and the UK market that UK infrastructure capacity is sufficient to receive gas imports at the range of NTS entry points, particularly St Fergus
- Assessing the potential for improved compatibility between the UK, Norway and continental European gas specifications
- Establishing a mechanism to manage efficiently the UK and Norwegian environmental impact assessment and approval processes as they affect cross-border developments

EXECUTIVE SUMMARY Cont'd

Closer Supply Chain Relationships

The UK and Norwegian supply chains are ideally situated and eminently capable of enhancing their current products and services through closer co-operation in the North Sea and other oil and gas markets. A number of recommendations are proposed to extend such co-operation:

- Mutual Share Fairs
- Cross-border mentoring
- Regulation compliance guidance
- Establishing a single North Sea suppliers database

Other Activities

In continuing to seek efficiencies through co-operation, further work is also recommended to assess the need for a common industry code of practice on access to infrastructure and on the feasibility of the cross-border sharing of standby vessels and ground aviation facilities.

It has long been recognised that the cost effectiveness of the North Sea would be improved by easing cross-border use of offshore drilling units. As a number of initiatives were already underway to facilitate this, it was excluded from the terms of reference for this work group. The Workgroup fully supports ongoing efforts in this area.

Way Forward

This report shows that improved co-operation in the above areas can improve North Sea effectiveness. This will ultimately unlock value through increased recovery of hydrocarbons, lowering investment and operating cost per unit recovered, economies of scale, improved safety and less harm to the environment. It also demonstrates that to maximise these benefits action is required now.

Taking forward this extensive range of activities will involve an equally extensive range of stakeholders. Once endorsed by PILOT and KON-KRAFT and other key stakeholders an Implementation Group will work closely with relevant parties to ensure recommendations in this report are fully realised.

SUMMARY of WORKGROUP RECOMMENDATIONS

RECOMMENDATIONS	Action Party
R1) Governments and Industry to maintain the good relations created during the course of this work and maintain the momentum in progressing the agreed recommendations in this report; PILOT and KON-KRAFT will establish an implementation group and continue to share good practice and experience in areas such as maximising recovery, economic analysis, technology, and skills.	DTI, MPE, PILOT, KON-KRAFT
R2) Formalise and deepen co-operation between PILOT and OLF safety groups to facilitate improvements in safety.	Step Change in Safety (PILOT) and Working Together for Safety (OLF)
R3) Governments to support freedom of movement of all hydrocarbons across the median line, to maximize value creation on the principle of best available commercial solution.	DTI, MPE
R4) Create a new Framework Treaty within the timeframe required to facilitate cross-border opportunities which recognize Norway's supply and UK demand-side drivers.	DTI, MPE
R5) In parallel with the new Treaty, create a set of guidelines, which will set out in practice how the articles of both the new and existing Treaties will apply.	DTI, MPE, Consultation Group
R6) Assess the impact of the UK fiscal regime on the competitiveness of infrastructure systems in promoting optimal hydrocarbon resource development.	DTI, IR, with Industry advice
R7) Industry to promote the required investment in the National Transmission System, particularly the connection from St Fergus, to ensure sufficient capacity and to reduce the uncertainty of cost and availability of NTS capacity. This will provide greater confidence for Norwegian producers and benefit UK security of supply.	Implementation Group in dialogue with DTI, Ofgem, Transco and Norwegian Suppliers
R8) Promote the need for improved compatibility of UK, Norwegian and continental gas sales specifications by dialogue between respective Ministries and stakeholders.	DTI, MPE, Gassco, Ofgem, HSE, Transco, Terminal operators
R9) Establish a mechanism to manage efficiently the UK and Norwegian environmental impact assessment and approval processes as they affect cross-border developments.	DTI, DEFRA, SEPA, MPE, NPD, UK and Norwegian operators
R10) Expand the range of opportunities available to the UK and Norwegian Supply Chains through delivering Mutual Share Fairs, cross-border business to business mentoring and seminars.	TPOK and INTSOK in co-operation with industry
R11) Assess the need for a common Code of Practice for access to cross-border (non-regulated) infrastructure, based on the principles of the existing UK and Norwegian codes.	Consultation Group
R12) Simplify the processes to give mutual access to the UK and Norwegian markets by creating guidelines to advise the Supply Chain on regulatory compliance.	DTI, MPE, TPOK, INTSOK
R13) Work to improve mutual open market access across the North Sea by creating a single pre-qualification system for UK and Norwegian contracts and an integrated business directory of suppliers for the UK and Norway.	UK and Norwegian Operator and Contractor subscribers together with FPAL and Achilles
R14) Assess the practicalities around realising the benefits of cross-border sharing of standby vessels and ground aviation facilities.	Industry and Regulatory Agencies

High

Medium

Low

Importance as an opportunity to deepen cross-border co-operation.

OVERVIEW

The Norwegian and UK Governments recognise that it is vital to ensure that North Sea oil and gas activities are globally competitive. To achieve this, each government is seeking to establish effective frameworks to achieve maximum value creation through:

- Efficient recovery of resources
- Optimal use of infrastructure
- Enhanced security of supply for consumers
- Improved market access for producers.

In each country, government and industry have found that new relationships and improved co-operation are key enablers to unlocking value and improving health, safety and environmental performance. The emergence of KON-KRAFT and PILOT (see Appendix 1) and other cross-industry bodies, demonstrates that co-operation between industry, government, contractors and Trade Unions is currently at a high level and is likely to continue in both the UK and Norway. The formation of this Workgroup has extended this practice across the border.

Several examples of cross border co-operation already exist, such as the joint development of the, Frigg, Statfjord and Murchison fields and the construction and operation of the Heimdal-Brae and Ekofisk pipelines underpinned by their relevant Treaties (Refs. 1-6). Figure 1 provides an indicative overview of a section of the present North Sea gas infrastructure systems. In addition, the recent Framework Agreement on Inter-connecting Submarine Pipelines was put in place to facilitate future cross-border pipeline connections on the continental shelves. There have also been a number of significant cross-border contracts in connection with field developments, operations and gas sales.

At the "North Sea Beyond 2000" Conference in October 2000 and again at Offshore Europe 2001 support was given by senior representatives from both countries to enhance further commercial co-operation between the UK and Norway. In response, the Norwegian Minister of Petroleum and Energy and the UK Energy Minister for Energy announced on 1 November 2001 the formation of the joint UK-Norway North Sea Co-operation Workgroup (The Workgroup) details at Appendix 2. The Workgroup, drawn from both PILOT and KON-KRAFT, was asked to take forward the areas for potential future co-operation. The Terms of Reference and composition of the Workgroup are given

respectively in Appendices 3 and 4.

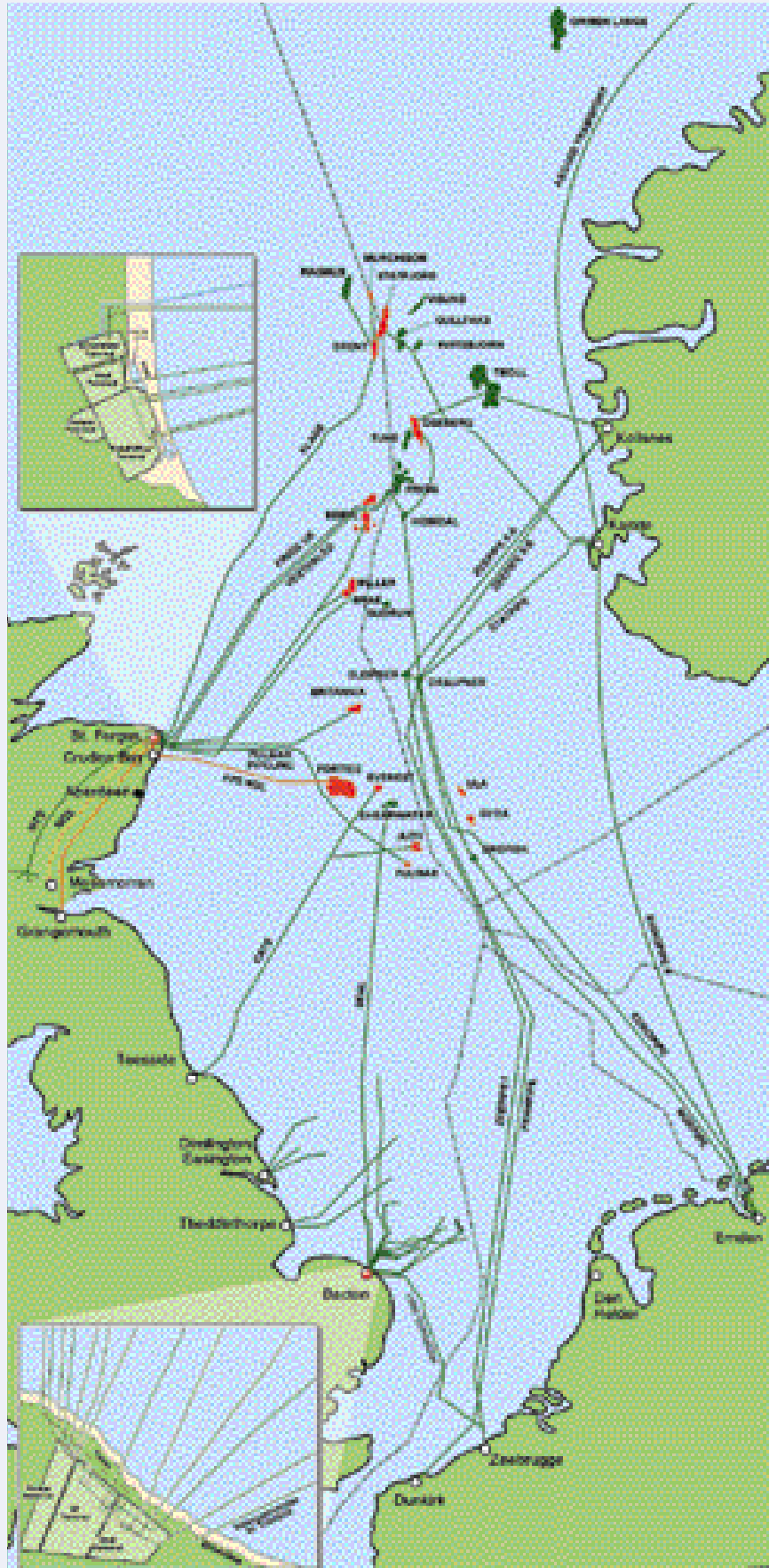
At its inaugural meeting in Oslo on 7 January 2002 the Workgroup agreed to focus on co-operation under the themes of:

- UK/Norway operational synergies
- Cross-border transportation and infrastructure
- Mutual Open Market Access for Contractors and Suppliers
- PILOT/KON-KRAFT/OLF experience and information exchange.

Each was taken forward by UK and Norwegian Theme Groups (Appendix 4). Typically, these sub-groups worked independently and later came together to develop joint positions. Their work, presented in this report, was illuminated by practical examples involving cross-border operations, field development, infrastructure, processing and transportation. In this way, the validity of the report recommendations outlined below was tested. As the four Theme Groups began to identify perceived barriers to greater co-operation, it quickly became apparent that there were two broad areas of uncertainty which might be addressed jointly by DTI and MPE. DTI and MPE therefore agreed to hold parallel discussions on whether/how guidance on existing treaties and a possible new Framework Agreement might address issues raised by the Theme Groups.

All of this shows that co-operation can, and does, happen. But we need to go further to address the needs of the future; so the time is right to give more impetus to even greater collaborative effort. A feature of this initiative has been the co-operative spirit with which all members of the Workgroup and the Theme Groups have undertaken their work. There was excellent alignment of views on the key issues. The recommendations are believed to be representative of a broad constituency of organizations operating on both sides of the median line.

Fig 1 - North Sea Gas Infrastructure Overview



CASE FOR ACTION

Historically, the UK and Norwegian oil and gas industries have largely evolved as two independent systems. Although both systems are now well established, there remains significant potential for unlocking value through increased co-operation. The ultimate aim is to promote safe, timely, economic and sustainable development of oil and gas resources across the North Sea.

Need for Action Now

The initiative to redouble efforts for cross-border co-operation is timely. The UK Continental Shelf (UKCS) is regarded as a maturing province with oil production past its peak and gas production is forecast to decline the next 2 to 3 years. On current predictions, the UK is likely to become an annual net importer of natural gas around 2005-2006, primarily as a result of this reduced indigenous production. The UK gas demand will be for both energy and petrochemical feedstock needs and Norway is a potential supplier to meet these needs. An analysis of the regional gas supply and demand picture is given in Figures 2.

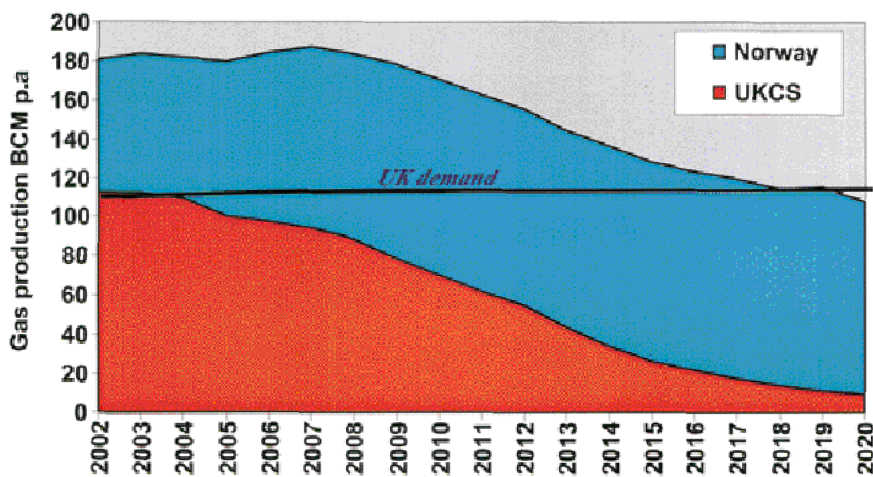


Figure 2: UKCS and Norway gas sales forecast. Excludes contribution from future exploration success. Source: UKOOA/DTI/NPD

Fig 2

In the same time-frame, spare capacity is forecast to emerge within the existing UK infrastructure. This infrastructure, which has the potential to serve transportation and processing requirements for the next 25 years, could play an important role if Norwegian gas supplies to the UK increase in line with expectations. In addition proposals for new pipelines are being considered actively. Investment decisions will need to be taken

over the next year or two if projects are to be on stream in time to contribute to meeting the expected UK demand gap.

Norway is restructuring its internal gas transportation system to develop a more formalized, transparent regulated system which, if connected to upstream UK transportation systems, will have an interface with a system that has increasing transparency and negotiated access driven by competition. As demand grows, the two systems will become increasingly connected. This will require attention to understand how the interface and systems will operate whilst ensuring a commercial level playing field, increased efficiency and that the best solutions are made available for gas markets.

An increasing numbers of fields on both sides of the median line are in late-life production. At the same time, new technology continues to enable tie-backs over ever-longer distances, bringing new satellites and once stranded accumulations into the "capture" area for existing installations. Both factors drive the urgent need for further innovative thinking to prolong production life, maximise

economic recovery of reserves and defer decommissioning activities. Enhanced cross-border co-operation should play a role by improving cost synergies and through enhanced expertise, experience and technology transfer.

Potential Areas for Improved Effectiveness

The Workgroup identified a wide range of issues, both real and perceived, where increased co-operation could improve pan-North Sea effectiveness. These include:

Safety: Companies and governments in both the UK and Norwegian sectors are striving to improve safety performance. The similarity of operations on either side of the median line suggests that improved experience and expertise transfer could only assist these efforts.

Perceptions of national interest: Many in industry perceive that their company's standing with the respective host government may be compromised if they propose cross-border commercial solutions which may lead to tax or employment 'leakage'. For example, wet gas export has been perceived to be a sensitive area. Such perceptions have potential practical consequences as it may impact on how actively companies seek to develop cross-border opportunities.

Regulatory framework for new developments: Currently there is no agreed legal, regulatory and fiscal framework for most foreseeable types of cross-border development. Up to now, treaties have been negotiated for such projects on a case-by-case basis. This approach means that owners of potential cross-border projects face significant uncertainty on both the timing and financial return achievable. The one development type for which a framework agreement is already in place is 'interconnecting' pipelines (pipelines with inlet flange on NCS and outlet flange on UKCS, or vice versa). The agreement sets out key regulatory, legal and fiscal principles, but lacks detail on how many of the principles would be interpreted in practice. Hence, owners of potential interconnecting pipeline projects also face significant uncertainty.

Gas Infrastructure: To date infrastructure relevant to cross-border gas has developed as three distinct systems – UK downstream (the NTS), UK upstream and Norway upstream. Each of these systems has undergone or is undergoing significant change to structure and/or regulatory regime. Improved mutual understanding and interface management between these systems is likely to enhance greatly the prospects for cost efficient and secure cross-border gas business.

Logistics: Steps have been taken within the UKCS and NCS to improve efficiency through co-operation between operators and contractors on logistics. It is likely that additional potential remains through cross-border co-operation. Also, there are ongoing initiatives to facilitate cross-border utilisation of mobile drilling units, there may be lessons learned from these initiatives which could be applied to other areas.

This report's recommendations aim to achieve this improved effectiveness by enhancing the regulatory and commercial

framework, reducing uncertainty and through understanding the behavioural changes needed to create additional value across the median line.

VALUE CREATION

Context

There is the potential for significant value creation from closer cross-border co-operation. Some co-operation would have happened anyway but the PILOT/KON-KRAFT initiative aims to create value from accelerating and expanding this. However, it should be recognized that quantifying the size of the prize is not a precise process.

At the qualitative level it is anticipated that the visibility of the UK-Norway co-operation process will change industry perceptions as to the reality of the median-line as a barrier. This improvement in confidence may well be just as significant as the current expectations of what this exercise can deliver.

Co-operation Corridor

To assist in understanding the potential prize from closer UK-Norway relationships a zone of co-operation has been defined. The zone approximates to a 60 km wide corridor either side of the median line and is marked on Figure 3.

The Corridor in total represents:

- Nearly 13 billion barrels oil equivalent of remaining hydrocarbons; some 2/3rds of this is oil
- Current production of 4.5 mboepd
- On the UK side, some 32 potential developments with a further 75 discoveries not currently commercial
- On the Norwegian side, some 31 potential developments with a further 7 discoveries not currently commercial.
- Some \$71 billion of remaining expenditure in the period to 2010, comprising capex of \$27 billion, opex of \$41 billion and removal costs of \$3 billion (all in constant 2002 prices). A further \$35 billion in spend is predicted for the following ten years to 2020.

Manifestation of improved Co-operation

In order to indicate the potential scale of benefits from better UK/Norway co-operation it is necessary to consider the practical ways in which more value could be created in the absence of the potential cross-border obstacles that exist today. Specific areas where co-operation may produce benefits are discussed below.

Developments and redevelopments

Industry access to new cross-border transport and/or processing

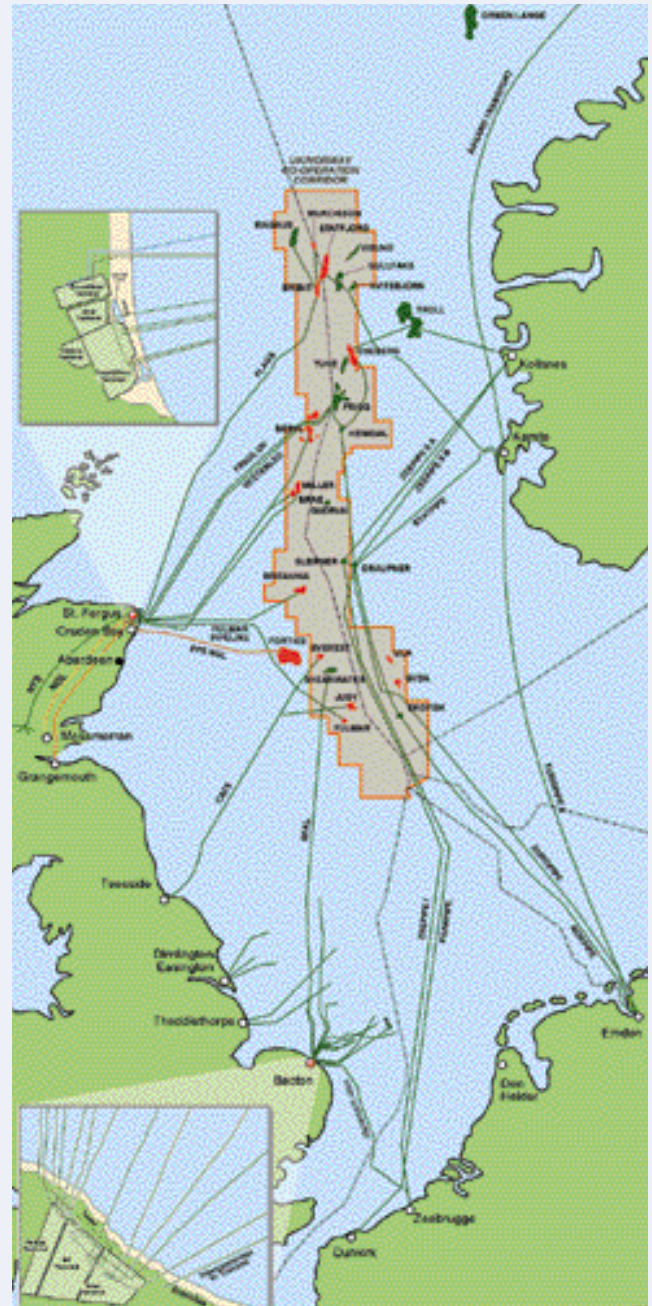


Fig 3

solutions will create new development options and more competition for remaining opportunities. This will increase the commercial potential of remaining resources in the co-operation corridor ranging from exploration acreage to undeveloped discoveries and existing fields.

Together with the initiative to improve the cross-border use of drilling units, reduced costs of new developments should increase the expected value of exploration activity. Increased exploration activity might generate additional gains.

The overall corridor capex could be reduced materially by closer co-operation. Each 1% saving on total corridor capex (\$27 billion to 2010) translates to a saving of circa \$35 million p.a.

Accelerated developments

The visibility of the UK/Norway co-operation process will change industry perceptions as to the reality of the median-line as a barrier. The changed mindset will encourage resource deployment onto formerly stranded resources, including exploration prospects. The result might be accelerated development plans based on tie-backs across the median line. The potential for such an impact is indicated by the success of the PILOT initiative in the UK, which over the last 3 years has contributed to raised investment levels and accelerated development of undeveloped discoveries. If development times for satellite fields could be reduced by 2-4 years, the pre-tax value of each accelerated development would be increased by \$50-100 million, depending on cycle time reduction and development size.

Efficient Transportation

Improved co-operation should make cross-border utilization of pipeline infrastructure more efficient. If improved co-operation makes use of existing pipeline ullage economically efficient for new developments, large costs savings can be gained. The benefit will be up to the cost of building a new pipeline, less the cost of the agreed tariff levels. The cost of one new pipeline, plus terminal tie-in/upgrade costs, will, depending on capacity and length, not unrealistically be in the range \$300 to \$400 million.

Operational Synergies

Reducing operating costs, via logistics savings and sharing of best practice, could be achieved through closer cross-border co-operation. The annual operating costs in the corridor are some \$5 billion currently. Each 1% saving on total corridor opex (\$41 billion to 2010), translates to a saving of circa \$50 million p.a.

Decommissioning

By covering a wider area, greater economies of scale and synergies from decommissioning options could be gained. Many installations are geographically proximate and economies of scale suggest that area removal programmes, involving clusters of fields on both sides of the median line, may be one way forward. With OSPAR providing a template of harmonized removal obligations, there is a clear common interest in co-operation. For

the corridor, aggregate removal costs to 2010 are \$3.3 billion; each 5% saving would create a prize of circa \$150 million. Beyond 2010 the removal costs grow significantly, offering the prospect of much larger long term savings.

Value outcome

The relative contributions from the various building blocks are difficult to predict. It will depend on how successful the co-operation is on the different areas discussed and what would have happened in the absence of this improved co-operation. Despite these caveats, it has been estimated that combining these illustrative building blocks yields a prize from closer co-operation of up to \$2 billion (pre tax) across the co-operation corridor in the period to 2010. All the areas identified have potential to contribute significantly towards the \$2 billion prize. For example, the contribution from accelerated developments could generate up to \$1 billion of the total.

The impact of streamlined cross-border working practices and improved efficiencies will be particularly material at the field scale. This improved competitiveness will be especially attractive for smaller UK and Norwegian companies and new entrants targeting niche opportunities adjacent to the median line.

For further details of the work on value creation, reference should be made to the web based appendices to this report. Links are provided in communication section.

THEME GROUPS

TRANSPORTATION and INFRASTRUCTURE

The Transportation and Infrastructure (T and I) Theme Group secured broad industry involvement on both the UK and Norwegian sides (Appendix 4). Taken together, the groups constituted a major cross-industry resource of experience, competence and idea generation capacity.

Initially the UK and Norway sub-groups worked separately. Results were then merged to form joint recommendations on a number of issue areas including:

- Legal and treaty issues
- Fiscal issues
- Physical and technical issues
- Transportation and transmission issues.

Jointly understood UK-Norway T and I issues are described below. Many of these issues are around ensuring a level competitive landscape.

Legal and Treaty

Additional Government-to-Government agreements will be needed to set a framework for most foreseeable cross-border business. The existing Framework Agreement only covers cross-border inter-connecting pipelines (pipelines with inlet flange on NCS and outlet flange on the UKCS or vice versa). It does not cover pipelines to shore, pipelines designed for reverse flow (no clear inlet or outlet flange), cross-border developments and re-developments, or reservoirs that straddle the border. It is important that the timing of the preparation of these agreements should fit with the development schedules for opportunities on both Norwegian and UK sides.

Existing Framework Agreement on interconnecting pipelines has some areas of uncertainty, which include:

- Understanding which government's regulations for third party access/acceptable tariff apply
- Timeline for joint government decision making
- Metering on pipeline systems and allocation of unprocessed hydrocarbons.

There are also areas of duplication of requirements, where processes of both government's apply, for example: approvals and consents; safety and environmental protection; inspection and resource management.

In Norway the Transportation and Processing (T and P) industry is taking steps to improve its gas transportation organisation through government led actions in establishing Gasled, Gassco and a new regulated access regime.

Currently, in the UK, competition between the operators of the pipelines with spare capacity is used to determine use of existing capacity. Moves to ensure compliance with European competition law in the T and P industry are the responsibility of the owners of each system. Common understanding will be required amongst owners of a particular T and P system in order for that system to be in a position to bid for future business, including cross-border business. Some UK joint venture T and P systems may require restructuring of agreements in order to comply.

Fiscal Issues

The fiscal regimes in UK and Norway play a key role in ensuring that each basin remains internationally competitive and will continue to evolve to reflect changing maturity and prospectivity. Fundamentally different fiscal regimes apply in the UK and Norway. This is not a barrier 'per se' provided the rules are clear and that the regimes do not distort decision-making. However, currently there is a lack of clarity in several important areas, including the interpretation of UK-Norway double taxation treaty.

Also, different tax regimes apply to many of the major UK owned offshore pipeline systems. This is a legacy of how the UK fiscal regime evolved. The different tax treatment of tariff income may be reflected in different tariff offers and hence influence route selection for Norwegian gas. Some adjustments to the fiscal regime may be justified to promote optimal infrastructure usage and avoid stranding reserves and investment.

Furthermore, there is a perception in industry that tax leakage may be an issue for the two governments, and that a company's standing with the respective host government may be affected if it is seen to propose opportunities which would result in significant tax leakage. Clarity and predictability about the position of the fiscal border and the commitment of governments to support the

best practicable commercial solution, would address this perception.

Progress in these areas will require industry to demonstrate the economic imperative of a level playing field for infrastructure taxation and will require extensive networking across relevant Government Departments in both UK and Norway.

Physical and Technical

At present different sales gas specifications exist (Calorific Value and Wobbe index) for European and UK-landed gas. Improved alignment of gas specification will minimise distortion by impacting the choice of landing point for gas imports. In addition, reducing the requirement for investment in quality control facilities could lead to lower overall costs.

UK-landed gas specification is covered by gas safety management regulations ('GSM Regs') and individual UK terminals currently discuss these issues directly with Transco. This issue is also being considered by the HSE and DTI, as the safe operation of consumer appliances is dependent on gas specification.

Transportation and Transmission

As the UKCS is maturing, there has been evidence of an increasingly pro-active approach by owners to the marketing of spare infrastructure capacity. The impact of active competition between pipelines has led to third party tariffs decreasing significantly since the early 1980's. The market for infrastructure capacity is likely to continue to evolve, and competition will increase further. For much of the NCS infrastructure, third-party access arrangements will be regulated by MPE through Gassco's independent role as Operator. The forecast infrastructure capacity availability is given in Figure 4.

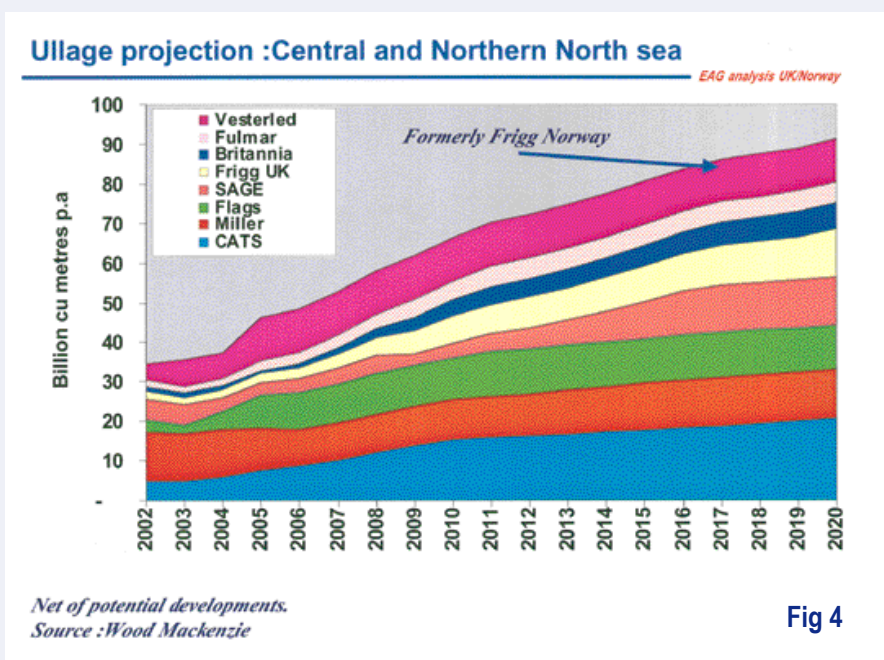
There is widespread acceptance by industry of the need for transparency and balance in dealing with requests for access to T and P infrastructure by non-owners or 'third-parties' (in this context T and P infrastructure covers transportation in pipelines and/or ships plus processing on offshore platforms as well as

terminals onshore). In recognition of this, industry on both the NCS and UKCS has put in place Codes of Practice:

- UK: "Offshore Infrastructure Code of Practice" (Ref. 7)
- Norway: "Recommended Guidelines on the Rules and Procedures Governing Access to offshore Production Infrastructure" (Ref.8)

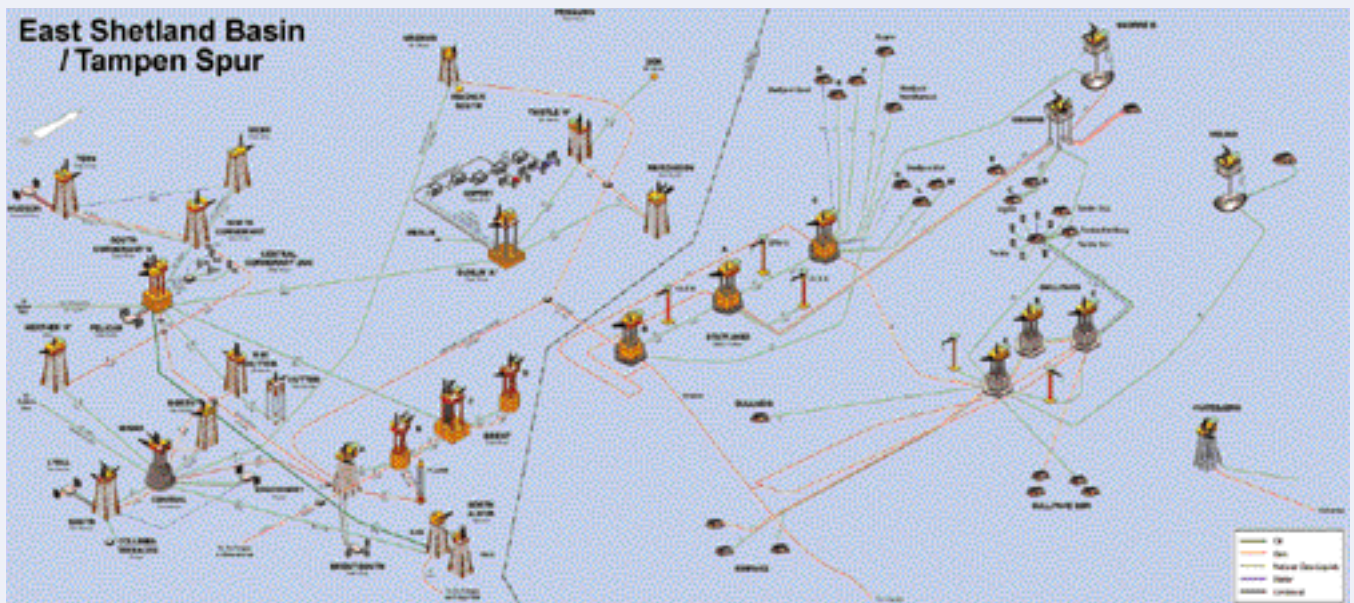
The existence of these codes should relieve the need for regulation leaving the opportunity for a potential user to negotiate tariffs freely with a number of potential suppliers of capacity in a competitive marketplace (subject to the safety net of a governmental dispute resolution process). In the cross-border context the UK and Norwegian Codes of Practice will need to be examined together to understand areas of commonality or divergence in interpretation and application.

The Norwegian system is a cost reflective regime in contrast to the UK onshore National Transmission System (NTS), which is a pay-as-bid system. The current system for entry to the NTS is high risk for long term, large investment projects.



Given that UK entry is both a physical and auction process, entry charge volatility is high and predictability low, particularly at the St Fergus entry point. Mechanisms to mitigate the risk will give confidence to investors to invest in new supply-side projects.

Fig 5



Major shippers need confidence that Transco will invest based on signals that capacity is required. Such capacity needs to be made available in a timely fashion, such that it does not impede Norwegian imports. Additionally, the option for long-term capacity rights should be available.

Discussion between the Government, Regulator and industry in the UK on the entry charge auction system are already well advanced. Timing of implementation of a longer-term auction system is now under review. Investment plans to ensure sufficient winter entry capacity at St Fergus for all likely supply scenarios are required. Such plans will have to be proposed by Transco and approved by Ofgem.

Figure 5 details a section of the North Sea and how various fields have been developed over time. This chart is relevant to both T and I and Operational Synergies issues.

OPERATIONAL SYNERGIES

The Operational Synergies Theme Group focused on identifying opportunities in operational areas along the value chain from reservoir to point of sale. It drew on input from operators in industry in both the UK and Norway. A prioritised list of opportunities was made based on significance of benefit and ease of implementation. These opportunities were then considered, in joint UK and Norway case studies, to assess any barriers which might prevent or hinder their realisation. From there, recommendations were made on the key barriers. The key areas of opportunity and findings are summarised below, with the output of the case studies more fully explained in the case study section

of this report.

The key areas of opportunity investigated were: marginal median line field development, cross-border processing of hydrocarbons and facilities sharing, offshore utilities sharing and logistics. Safety and environmental issues, as they impacted these areas, were also considered. Cross-border use of offshore drilling units is being addressed by the International Association of Drilling Contractors (IADC) and the NPD and HSE, so was not expanded upon by the Group.

Key Areas of Opportunity for Cross-border Co-operation

Safety

A key area where Norway and the UK have a common interest and challenge is in the area of safety, and in particular in ensuring that the North Sea is a safe place to work. Each country's industry safety groups have cross-industry initiatives with similar roles and objectives and have met to exchange learnings and areas of common interest. The bodies leading these initiatives are the UK's "Step Change in Safety Group" (PILOT) and Norway's "Working Together For Safety Group" (OLF). These groups are ideally placed to deepen that exchange. They will however, need to ensure that their structures provide for effective co-operation and dissemination of their findings within Industry.

The understanding of technical safety issues was developed through the case studies. The differences in safety regulations and requirements lead to uncertainties in field developments and cross-border processing and facilities usage, on how these are to

be applied and interpreted and potential duplication of approvals managed. On logistics, a lack of clarity on how differing safety equipment and training requirements should be addressed is an issue.

Clarifying the key principles of how the application of the respective country's safety regulations would be a real enabler for continued safety performance improvements. A framework of accountabilities and responsibilities of the various agencies would also give much improved clarity.

Marginal median line Field development and Cross-Border Processing and facilities sharing

Marginal median line field developments and use of existing infrastructure for cross-border transportation and processing of hydrocarbons were identified as key areas for further co-operation. The primary benefit is recovery of reserves which would otherwise be uneconomic or delayed. However, such cross-border projects are perceived to be difficult, largely due to uncertainties around the application of approval processes for field developments and interpretation of differences in governmental regulatory models. There is a need for guidelines on the interpretation of the regulations and clarity on how the interfaces between the relevant approving authorities are to be managed. This needs to be done within the timeframe of development decisions being made on real opportunities for it to have an impact on the UK demand and Norway supply picture (Fig 2).

Logistics

The case studies identified benefits which might be realised through sharing of standby vessels and ground aviation facilities. There are however, practical issues inhibiting this including certain safety requirement differences and a cross-border agreement on the shared use of ground aviation facilities. The former would be captured under the clarity recommended on safety guidelines above.

Cross-border use of offshore drilling units

It is recognised there are substantial barriers to cross-border utilisation of mobile drilling units. However, there are ongoing initiatives to remove these barriers:

- The IADC has developed a template for accepting drilling units, showing guidelines on how to comply with regulations in all North Sea countries
- Smedvig has, on the initiative of NPD and HSE,

performed a gap analysis between UK and Norwegian offshore drilling rig regulations and recommended that the industry and the authorities in both Norway and UK should actively seek mutual acceptance of the UK Safety Case and the Norwegian SUT and agree on a way forward on how to handle the individual gaps in the legislation. The long-term objective should be to harmonise fully legislation and acceptance criteria.

In **utilities sharing**, it was noted that there are no barriers to cross-border telecommunications via fibre optics which are currently operating successfully.

Environment

The environmental regulatory framework differs between Norway and the UK. For example each country has developed its own regulations to comply with the OSPAR convention. This can complicate approvals for environmental assessments and operations of cross-border projects. However, the joint Frigg decommissioning process shows that this can be handled pragmatically and successfully. In cross-border situations, the management of these differences, and mutual understanding of their interpretation must be clear to field operators.

MUTUAL OPEN MARKET ACCESS

An efficient and informed supply chain is critical to realisation of the prize identified in this report. The work of this Theme Group centred on measures aimed at leveraging the strengths and best practices available from the UK and Norwegian oil and gas industry contractors and suppliers.

Contractor and Supply Chain companies can expect to gain benefit from the accelerated development of existing prospects, and the enhanced activity levels created by the improved economics of several opportunities identified by the other groups. Involving the supply chain in finding innovative ways to develop new opportunities which the T and I and OS groups have identified will be crucial to new value creation.

There is significant trade between the UK and Norway at present in this sector – contrary to a commonly held perception by oil and gas suppliers. Data from Trade Partners UK (TPUK) and INTSOK illustrate that reciprocal trade amounts to between £800 million - £1 billion per annum (9.25 billion NOK - 11.5 billion NOK). This equates to around 1/3 of total exports in the sector from both the UK and Norway and represents a significant success rate.

With a number of companies already operating with a measure of success in both the Norwegian and UK sectors, the Mutual Open Market Access Group (MOMA) looked for additional opportunities to add to the existing, substantial level of trade.

In so doing, the MOMA Group considered the relative ease of setting up and conducting trade, any barriers or difficulties encountered and any measures that could facilitate the process. Several options were considered but, fundamentally, the outcome will be an evolutionary process of promoting trade links based on the availability of good information, simplified guidance and moderate steps toward harmonised industry practices. Future opportunities may exist to develop and jointly market UK-Norway capabilities in other oil and gas provinces, thereby increasing international competitiveness for both countries.

Working from existing and specially commissioned survey data, the MOMA Group established that a majority of companies reported no major difficulty in operating in both countries. There is no formal or political protectionism that would restrict market entry. However, what is important is an understanding of the composition and strengths of the indigenous supply chains thus allowing companies to position their products and services appropriately.

The UK and Norway already benefit from two complementary systems assisting in pre-qualification and tendering; in the UK, First Point Assessment Limited (FPAL) and in Norway, Achilles-JQS. Both systems use the same software platform. However, FPAL has enhanced its service to include performance feedback and web links, providing additional company capability data. Closer co-operation could provide Norwegian operators with a similar service.

There will also be opportunities for closer co-operation between FPAL and Achilles which bring the potential to demonstrate 'North Sea' capability to operators in other oil provinces. Indeed, evidence from other countries suggests that operators do not differentiate between UK and Norwegian suppliers; they are merely interested in North Sea technology.

A number of barriers to closer co-operation and contract success were identified; these were often more perception than reality. As the trade example demonstrated, although differences exist in

business culture, the principal problems encountered were in areas of:

- Complexity of both Norwegian and UK tax regulations
- Making contacts and finding distributors
- Interplay of national, industry and company standards and specifications
- Exchange rate volatility – both between the UK and Norway and with other currencies
- Understanding and respecting differing business cultures.

Solutions proposed

To better identify the route to providing solutions to these issues these were grouped into 3 categories:

- Business Culture
- Industry Practices
- Legislative / Fiscal

These reflect the spheres of influence of the various participants and contributors to the initiative and a number of solutions are recommended. Assistance on several areas is sought, including; development of guidance on personal and corporate taxation, regulation compliance and contact data on official departments and agencies, mutual share fairs and a cross-border mentoring programme to help small businesses share knowledge on the practicalities of working on both sides of the border.

PILOT/KON-KRAFT EXCHANGE

The Governments and industries of the UK and Norway face similar issues which impact on the development of their oil and gas resources. Both have established joint government/industry forums, PILOT and KON-KRAFT (Appendix 1), to develop solutions on such issues. There is potential for these groups to work together and to exchange experiences from their own work and from the work of other relevant government or industry groups (such as UKOOA in the UK and OLF in Norway).

The PILOT and KON-KRAFT Secretariats have been working closely on a number of areas and it is the work of this group that very much underpins work carried out by other theme groups.

The current activities of PILOT and KON-KRAFT/OLF are contained in the following table. Unsurprisingly, there are a number of common areas of activity, confirming synergies. The table also pinpoints areas where future co-operation may prove fruitful:

PILOT	KON-KRAFT/OLF
Areas of Common Interest	
Maximizing Recovery <ul style="list-style-type: none"> • Undeveloped Discoveries • Brownfields • Stimulating Exploration 	Development of Small Fields
Safety <ul style="list-style-type: none"> • Step Change in Safety 	Safety <ul style="list-style-type: none"> • Working Together for Safety (OLF)
Technology <ul style="list-style-type: none"> • ITF • NOVA 	Technology <ul style="list-style-type: none"> • DEMO 2000 • OG21
International Activity <ul style="list-style-type: none"> • Trade Partners UK 	International Activity <ul style="list-style-type: none"> • INTSOK
Attracting New Graduates <ul style="list-style-type: none"> • Cogent • Graduate Attraction Programme 	Attracting New Graduates <ul style="list-style-type: none"> • Oxygen
Areas of Distinct Activity	
Economic Advisory Group	Supply of Capital
Supply Chain Development <ul style="list-style-type: none"> • LOGIC 	Conflict resolution
Progressing Partnership (Ref. 9)	Co-operation and Work Process Improvements

Equally, there are other areas where our approaches differ and which provide additional opportunity for the PILOT and KON-KRAFT bodies to learn from each other. For example, PILOT established an Economic Advisory Group. The group, which comprises economists from government and industry, provides economic analysis to help devise and evaluate progress towards the UK 2010 Vision for the oil and gas industry (Appendix 1) as well as giving advice on UKCS forecasts of production and investment levels. KON-KRAFT may wish to consider setting-up a similar group. Similarly, KON-KRAFT has members from the financial institutions to advise on macro investment influences. PILOT may wish to consider inviting new membership from the finance sector.

PILOT and KON-KRAFT together with OLF will continue experience sharing and will play an instrumental role in seeking widespread buy-in to ensuring effective implementation of the Workgroup's recommendations working closely with the existing industry groups.

These reflect the spheres of influence of the various participants and contributors to the initiative and a number of solutions are recommended. Assistance on several areas is sought, including; development of guidance on personal and corporate taxation, regulation compliance and contact data on official departments and agencies, mutual share fairs and a cross-border mentoring programme to help small businesses share knowledge on the practicalities of working on both sides of the border.

CASE STUDIES

Examples of opportunities with the potential to create value through increased co-operation include:

- Development of fields or cluster of fields straddling the border where no facilities are currently in place
- Increased utilization of existing facilities for cross-border tie-back of sub-sea developments
- New field developments or, re-development of existing field clusters utilising transportation and infrastructure by connecting facilities and developing joint solutions for power supply, water, CO₂, contaminant and waste management onshore and offshore
- Improved co-operation to make cross-border utilisation of pipelines more efficient
- Linking infrastructure to provide flexibility in landing hydrocarbons and non-hydrocarbons where they can deliver most value.

To illuminate these opportunities in a practical sense the Theme Groups developed a set of case studies based on real scenarios involving cross-border operations, field development, infrastructure, transportation and processing. In this way the validity of the recommendations made in this report were tested.

Safety

Norway and the UK each have cross-industry safety groups working towards improvements in safety. In the UK it is the Step Change in Safety group (PILOT) and in Norway, the Working Together for Safety group (OLF). Their programmes have similar roles and objectives. These include challenging targets to reduce their overall Lost Time Injury frequency performance (onshore and offshore). Co-operation on exchange of the developments and workings of these Groups, comparison of safety performance, and reviews of fatalities is seen as important and will be deepened.

A new initiative which arose during this work was the Safety Trading Day, which was held on 18 July 2002. Installations on each side of the border sent representatives from their offshore workforce to each other's installation to exchange information on safety with the following aims:

- Exchange of Health, Safety and Environmental systems, safety tools, knowledge, experience and initiatives between installations and teams
- Publicise "Best Practices" across the field and the industry
- Encourage co-operation across shifts, installations and companies, irrespective of boundaries.

The output from the safety trading day will be discussed at an industry engagement session and will be available on the PILOT and OLF (see page 28).

New field development case

This case study looked at a marginal field (too small for a stand-alone development) located close to median line with the only close infrastructure being located on the opposite side of the border. There are several barriers to developing such an accumulation across the median line. Key examples are:

- Regulatory uncertainty, e.g:
 - UK Safety Case regulations or Norwegian Management Legislation
 - Design and construction regulations (verification required in the UK, not in Norway)
 - Environmental regulations (e.g. to which country should discharges like CO₂ and chemicals be reported?)
- Regulatory structures which differ between the two countries. These can be an obstacle to achieving co-operation and effectiveness (e.g. health and safety in UK under jurisdiction of HSE whereas in Norway is under NPD)
- Improve clarity as to on the Plan of Development and the Environmental Impact Assessment approval processes
- Marginal satellite tiebacks more and more resort to production allocation without fiscal metering. Cross-border developments might require full fiscal metering incurring substantial costs, potentially making the development uneconomic.

To address the above barriers, the governments could produce a framework of accountabilities and responsibilities with respect to cross-border developments. It should address relevant existing

regulations of both countries and set out, wherever possible, to remove duplication, achieve common standards and provide clear guidance to all parties.

Field Re-development case

Redevelopment of a mature field would require facility modification. For a field located close to or across the border there may be opportunities for synergies by linking the cross-border facilities. The major barriers identified to this cross-border processing are:

- Cross-border treaties: Would a cross-border redevelopment require amendments to the possible existing treaty or a new treaty?
- Framework complexities: The general perception is that the Framework for cross-border approvals is complex and time-consuming. A "road map" for the process, prepared by the DTI and MPE, giving clarifications and time-scales, could help the industry
- Environmental regulations and Environmental Impact Assessment: as for the "New field development case" (above)
- Safety Regulations: as for the "New field development case"
- Metering and allocation: as for the "New field development case".

Large gas transportation/processing project

This case study identified key issues which would influence selection of the transportation route for a large project supplying dry gas from Norway to the UK, including:

- Cross Border Legal Framework (see also "Liquids Export Pipeline - Norway to UK" case study below). There is an existing UK / Norway Framework Agreement for inter-connecting pipelines to existing pipeline systems, but there is no such agreement in place for a new pipeline to the mainland. To create a 'level playing field' the governments could put in place similar legal frameworks for all potential cross-border transportation projects
- NTS entry charges are very volatile (based on auctions) and differ largely between St Fergus and Bacton. Additional investments in St Fergus NTS capacity could

converge the auction prices

- Cross Border Fiscal Framework: the only guidelines for fiscal regime are the precedents from previous pipelines, which were treated on a case-by-case basis (see "Liquids Export Pipeline - Norway to UK" case)
- Potential for Tax Driven Investment: the existing UK pipeline systems are covered by a range of tax regimes, potentially impacting the tariff offer that owners can make. To overcome these 'unfair competitive advantages', the UK government could equalise the tax treatment in all existing and new pipeline systems for oil and gas
- Competition Law: Compliance with EU competition law may impact ownership structures in certain systems competing for cross-border business. In such circumstances, resource owners may find the process of negotiating arrangement with various individual pipeline owners complex and very time consuming.

Liquids Export Pipeline - Norway to UK

This case study outlined a number of the key cross border issues associated with liquids export from Norway to UK Transportation and Processing infrastructure:

- A new pipeline could be covered by two legal jurisdictions (UK and Norway), giving potential for duplication and additional complexity that could hinder the cost effective and timely development of resources
- The different fiscal regimes in the UK and Norway could have a major influence on the pipeline routing that may not be the most appropriate solution for North Sea field development
- The negotiation frameworks differ between the UK and Norway.

To overcome the above issues the two governments could work together to put in place appropriate and necessary legal and fiscal frameworks for all cross-median line infrastructure. They could work also with the industry to develop a cross border code of practice setting out a set of expectations for cross-border infrastructure negotiations.

Power and telecommunications cable network

Whilst tax on emissions is a driver in Norway for addressing this,

a real barrier to realizing cross-border power exchange is the cost of capex involved which renders it uneconomic to implement. In addition, the impact on production should power supplies fail was seen as a key risk. Therefore it was decided not to pursue this case in further detail, at this stage, as the added value was considered low.

Cross border logistics

The potential for logistics co-operation in the Tampen area was studied and some key logistic issues which can be extrapolated along the UK-Norway median line were identified:

- There are mature supply chains in both countries i.e. Vendor – Base – Supply
- Very small number of personnel need to be flown cross border
- Cross border liabilities and indemnities are not in place for operating companies
- There are differences in safety equipment and training philosophy
- There are differences in legislation (e.g. making cross-border waste transport very difficult).

Due to the maturity of the existing supply chains, there is currently not much potential synergy in supplying UK fields that are closer to Norway with Norwegian vessels from Norwegian supply bases. More synergy is possible in the cross-border sharing of standby vessels, 'air sea rescue' and open sky co-operation. There are ongoing area emergency and rescue co-operation initiatives in Norway and the UK and depending on the results of these, cross-border expansion of these initiatives might add additional value. To realize open sky co-operation, a cross-border agreement, which facilitates the use of each country's ground aviation facilities, should be developed. For this a unified cross-border safety equipment specification would be needed. Also, cross-border sharing of good practices could improve operations and reduce cost

(Fuller details of these case studies are given in the Web Appendices at www.pilottaskforce.co.uk and www.oed.dep.no)

INTER-GOVERNMENTAL AGREEMENTS

As the four Theme Groups began to identify perceived barriers to greater co-operation, it quickly became apparent that there were two broad areas of uncertainty which might be addressed jointly by DTI and MPE. The first was a lack of awareness of, and/or lack of clarity about the scope and practical application, of the existing UK/Norway Framework Agreement on the laying, operation and jurisdiction of interconnecting submarine pipelines ("the Framework Agreement"). The second was a concern that much of the likely future cross-border business falls outside the scope of the existing Framework Agreement. Industry representatives on the Workgroup felt that these two areas of uncertainty might be acting as a disincentive to new pipeline or field development projects.

The Framework and other Agreements

The existing Framework Agreement covers interconnecting pipelines, on the Continental Shelf, which cross the UK/Norway maritime boundary and which link infrastructure under Norway's jurisdiction with infrastructure under UK jurisdiction. The Agreement contains a number of provisions on co-operation/consultation between the two Governments on matters such as:

- approval of a pipeline operator
- environmental protection
- safety
- security
- metering
- inspections
- decommissioning

It sets out the procedures on the approval/authorisation for pipeline construction, the settlement of disputes about third party access to interconnecting pipelines and it invokes the UK/Norway Double Taxation Convention of October 1985 (and any subsequent Protocols or Conventions) to ensure that double taxation is avoided. The Agreement does not cover direct pipelines from petroleum reservoirs to land territory, in either the UK or Norway; and it has no provisions on the cross-border development of petroleum reservoirs.

There are several existing field or pipeline specific Agreements between the UK and Norwegian Governments (Refs 1-6). These Agreements were negotiated following firm commercial proposals

from respective UK and Norwegian licensees. DTI and MPE quickly acted to improve awareness by placing the full text of the existing Framework Agreement on to respective Government websites

<http://www.og.dti.gov.uk/upstream/infrastructure/framesum.htm>

and www.oed.dep.no, with a summary of its main provisions.

The 1998 amended Frigg Treaty is posted on the following websites:

www.fco.gov.uk/Files/kfile/cm5513E.pdf

www.dep.no/ud/norsk/publ/stprp/032005-030054

Industry support through the proposed Consultation Group would help clarify the type of guidance needed on the existing Framework Agreement.

A New Agreement

Specific examples of potential new developments emerged from the case studies being developed by the four Theme Groups. DTI and MPE agreed to consider proposals for the scope of a new "framework" Agreement to cover those possibilities, which would avoid the time consuming negotiation of new field or pipeline specific Agreements in the future. Subject to further consideration of the potential new projects by a range of other Government departments in Norway and the UK, DTI and MPE accepted that the scope of any new Agreement might include general provisions on the:

- construction and operation of landing pipelines from petroleum reservoirs to land;
- development of transboundary reservoirs;
- joint development of reservoirs on either side of the maritime boundary;
- development or redevelopment of reservoirs on one side of the boundary from facilities on the other side.

The Consultation Group should provide input to their respective Governments on any new Treaty. The Groups will identify gaps and specific examples of the types of project that might be covered by any new Agreement. In the UK the members of the Consultation Groups will be drawn from the Transport and Infrastructure and Operational Synergies Theme Groups. DTI and MPE agreed to participate in their respective Groups and seek to involve other relevant Government departments on specific issues as they arise.

RECOMMENDATIONS and IMPLEMENTATION PLAN

The Workgroup Recommendations together with implementation proposals are summarised in the Tables below. Recommendations are grouped into High (red), Medium (yellow) and Low (green) priority according to their potential to create value through deepening UK-Norway Co-operation.

RECOMMENDATION 1

Governments and Industry to maintain the good relations created during the course of this work and maintain the momentum in progressing the agreed recommendations in this report; PILOT and KON-KRAFT will establish an Implementation Group and continue to share good practice and experience in areas such as maximising recovery, economic analysis technology, and skills.

Implementation	PILOT and KON-KRAFT will establish a joint Implementation Group to track and, if necessary, seek to facilitate progress on recommendations. A joint PILOT and KON-KRAFT meeting will be held in 2003. The purpose will be to continue the dialogue on UK-Norway Co-operation and to assess progress and guide the Implementation Group on the execution of the recommendations made in this report.
Action Parties	DTI, MPE, PILOT, KON-KRAFT.
Timing	Implementation Group to be established by Q3 2002. PILOT and KON-KRAFT Meeting to be scheduled for H1 2003.

RECOMMENDATION 2

Formalise and deepen co-operation between PILOT and OLF safety groups to facilitate improvements in safety.

Suggested focus areas identified to date include:

- Step Change in Safety works together with Working Together for Safety to drive change in the areas of:
 - Crane and lifting operations, including dropped objects
 - Maritime Operations
 - Standardisation of Safety Procedures (e.g. inductions and PTW Systems)
- Extend safety-trading concept to both the UK and Norway sectors of the North Sea.
- Conducting a Joint Fatality Review, exchanging findings and learnings on both sides.

Implementation	OLF and PILOT to review structure of safety groups to ensure co-operation is driven from appropriate (Managing Director) level on both sides. OLF and PILOT safety groups to jointly decide how best to involve regulators (HSE, NPD).
Action Parties	Step change for Safety (PILOT), Working Together for Safety (OLF).
Timing	Ongoing.

RECOMMENDATION 3

Governments to support freedom of movement of all hydrocarbons across the median line, to maximize value creation on the principle of best available commercial solution.

The purpose of this commitment is to make it clear that both countries wish to maximize the potential for value creation from all their hydrocarbons, and along the entire value chain, from producer to consumer. It will place the challenge to identify and develop commercially attractive cross-border opportunities on industry, whilst demonstrating that governments are addressing the perceived and real cross-border barriers identified in this report.

Implementation	Incorporate these messages in communications programme for Ministers and industry Leaders, building on the joint Ministerial announcements at ONS.
Action Parties	DTI, MPE.
Timing	Ongoing, reinforced at ONS 2002.

RECOMMENDATION 4

Create a new Framework Treaty within the timeframe required to facilitate cross-border opportunities which recognize Norway's supply and UK demand-side drivers.

A new Treaty would aim to cover cross-border pipelines to shore, , pipelines designed for reverse flow (no clear inlet or outlet flange), cross-border developments and re-developments, or reservoirs which straddle the border.

Implementation	The two Governments to negotiate a new Framework Treaty. It is important that the timeframe for the development of the Treaty is consistent with key decisions on major cross-border projects now in the planning phase and which recognizes UK demand and Norwegian supply-side drivers.
Action Parties	DTI, MPE.
Timing	Q1 2003 – to meet needs of projects currently in planning phase and recognizes Norway's supply and UK demand-side drivers.

RECOMMENDATION 5

In parallel with the new Treaty, create a set of guidelines which will set out in practice how the articles of both the new and existing Treaties will apply.

Ideally these would include:

- a 'road map' to clarify roles, responsibilities, accountabilities in approvals processes, which also should clarify which regulatory authority has primacy over which issue.
- agreement from the two Governments that they will accept an 'arms-length' agreement between companies as the basis for allocation of unprocessed hydrocarbon flows between the two countries.
- agreed cross-border metering standards for pipelines.

The relationship of any new treaty to existing framework agreement would also need to be clarified.

Implementation	The two Governments to agree guidelines to the existing framework agreement and the new Treaty. The Implementation Group will establish Consultation Groups to support the DTI and MPE in drawing up guidelines. These will network widely within industry to provide commercial and technical advice. As for the new treaty, it is important that the timeframe for the development of the guidelines is consistent with key decisions on major cross-border projects now in the planning phase.
Action Parties	DTI, MPE, Consultation Groups (networking with other relevant Government departments and agencies).
Timing	Q1 2003 – to meet needs of projects currently in planning phase and recognizes Norway's supply and UK demand-side drivers.

RECOMMENDATION 6

Assess the impact of the UK fiscal regime on the competitiveness of infrastructure systems in promoting optimal resource development.

Implementation	DTI working with Inland Revenue to assess impact of fiscal regime (e.g. impact on tariffs) as a barrier to cross-border business.
Action Parties	DTI, IR with Industry advice.
Timing	For response to the Implementation Group by Q4 2002.

RECOMMENDATION 7

Industry to promote, the required investment in the UK National Transmission System, particularly the connection from St Fergus, to ensure sufficient capacity and to reduce the uncertainty of cost and availability of NTS capacity. This will provide greater confidence for Norwegian producers and benefit UK security of supply.

Implementation	UK members of the T and I theme group have already initiated implementation of this recommendation, and are acting in consultation with DTI and Ofgem. They will continue this process, reporting progress back to the Implementation Group set up under recommendation 1.
Action Parties	Implementation Group, DTI, Ofgem and Transco in dialogue with Norwegian suppliers.
Timing	Statement on planned investment by Q4 2002.

RECOMMENDATION 8

Promote the need for improved compatibility of UK, Norwegian and continental gas sales specifications by dialogue between respective Ministries and stakeholders.

Implementation	DTI to investigate and discuss with Transco and HSE implication of embracing a broader range specification, providing increased overlap between UK and Norwegian specifications. MPE to discuss with Gassco the scope for broader range to Norwegian specification.
Action Parties	DTI, MPE, Gassco, Ofgem, HSE, Transco, Pipeline and Terminal Operators.
Timing	Outline of process to improve compatibility by Q1 2003.

RECOMMENDATION 9

Establish a mechanism to manage efficiently the UK and Norwegian environmental impact assessment and approval processes as they affect cross-border developments.

Implementation	As part of the Framework Treaty and guidelines (Recommendations 4 and 5), provide clear guidance on how to manage these differences. Starting point is the DTI (in consultation with DEFRA, SEPA and Industry) to clarify the requirements on the UK side and the MPE (in consultation with NPD, and Industry) to clarify the requirements on the Norwegian side.
Action Parties	DTI, DEFRA, SEPA, MPE, NPD, UK and Norwegian operators.
Timing	Q1 2003 – to meet needs of projects currently in planning phase.

RECOMMENDATION 10

Expand the range of opportunities available to the UK and Norwegian Supply Chains through delivering Mutual Share Fairs, cross-border business to business mentoring and seminars.

Implementation	<p>Mutual Share Fairs</p> <p>2 Share Fairs to be organised annually, one in Norway, one in UK.</p> <p>The "visiting" country operating companies will present development plans and give contact details to the "host" country supply chain. Government agencies to run mini-seminars on doing business in each country.</p> <p>Cross-border business to business mentoring</p> <p>DTI to provide details of UK B2B mentor programme to KON-KRAFT. Initial pilot scheme of 2 operator and 2 large contractor mentors in each country to mentor 4 SMEs in the other country.</p> <p>Regular Cross-border seminars to enhance continued co-operation.</p>
Action Parties	TPUK and INTSOK in co-operation with Industry.
Timing	UK Share Fair to be held Q1 2003, Norway Q2 2003. Mentoring pilot scheme to be in place by Q2 2003.

RECOMMENDATION 11

Assess the need for a common Code of Practice for access to cross-border (non-regulated) infrastructure, based on the principles of the existing UK and Norwegian codes.

Implementation	Examine the existing UK and Norwegian Codes of Practice to identify areas of commonality and divergence on application to cross-border Infrastructure. The Consultation Group (established under Recommendation 4) to recommend way forward on Code of Practice following development of the new Treaty and the supporting guidelines.
Action Parties	Consultation Group.
Timing	Assessment completed by H1 2003.

RECOMMENDATION 12

Simplify the processes to give mutual access to the UK and Norwegian contractor and supplier markets by creating guidelines to advise the companies on regulation compliance.

Implementation	A joint government-industry working group of the action parties to examine the regulations and business practices to be complied with in cross-border trading. Clear, concise guides and route-maps to aid compliance to be developed, including lists of helpful contacts.
Action Parties	DTI, MPE, TPUK, INTSOK.
Timing	Working group to be established by November 2002, guides and route-maps to be published Q1 2003 (ideally to coincide with Share Fair in Recommendation 10 above).

RECOMMENDATION 13

Work to improve mutual open market access across the North Sea by creating a single pre-qualification system for UK and Norwegian contracts and an integrated business directory of suppliers for the UK and Norway.

Implementation	The Implementation Group to consult with FPAL and Achilles stakeholders to identify practical measures to align functionality and marketing of the databases.
Action Parties	UK and Norwegian Operator and Contractor subscribers together with FPAL, Achilles.
Timing	Consultation to take place Q4 2002.

RECOMMENDATION 14

Assess the practicalities around realising the benefits of cross-border sharing of standby vessels and ground aviation facilities.

Implementation	Operators work with cross-border neighbours to share best practice and demonstrate opportunities to other Operators (e.g. Norsk Hydro, Statoil and Shell on cross border study on the Tampen area). Joint Logistics Groups will clarify size of prize and the energy required to reach it, work recommendations (see Logistics case study) and monitor outcomes. As a starting point, develop a cross-border agreement, which facilitates the use of each country's ground aviation facilities, and develop a unified cross-border helicopter safety equipment specification.
Action Parties	Operators, relevant Regulatory Agencies (e.g. Customs and Excise; Immigration).
Timing	Report back to Implementation Group on assessment by H1 2003.

UK-NORWAY NORTH SEA CO-OPERATION WORKGROUP – FUTURE ROLE

Implementation Plans

Implementation and monitoring of the outputs from the Workgroup will be critical if the closer UK-Norwegian co-operation is to be achieved. The success of the existing Workgroup structure has led to the proposal that a successor group should be tasked with implementing this work. To ensure continuity it is anticipated that participation will again be drawn from membership of PILOT and KON-KRAFT/OLF who will retain an overarching role in ensuring delivery. It is important that this Group has sufficient resources and influence to bring the report recommendations to fruition and that these resources are balanced between the co-operation parties.

The **diagram below** sets out the proposed structure of the new Implementation and Consultation Groups.

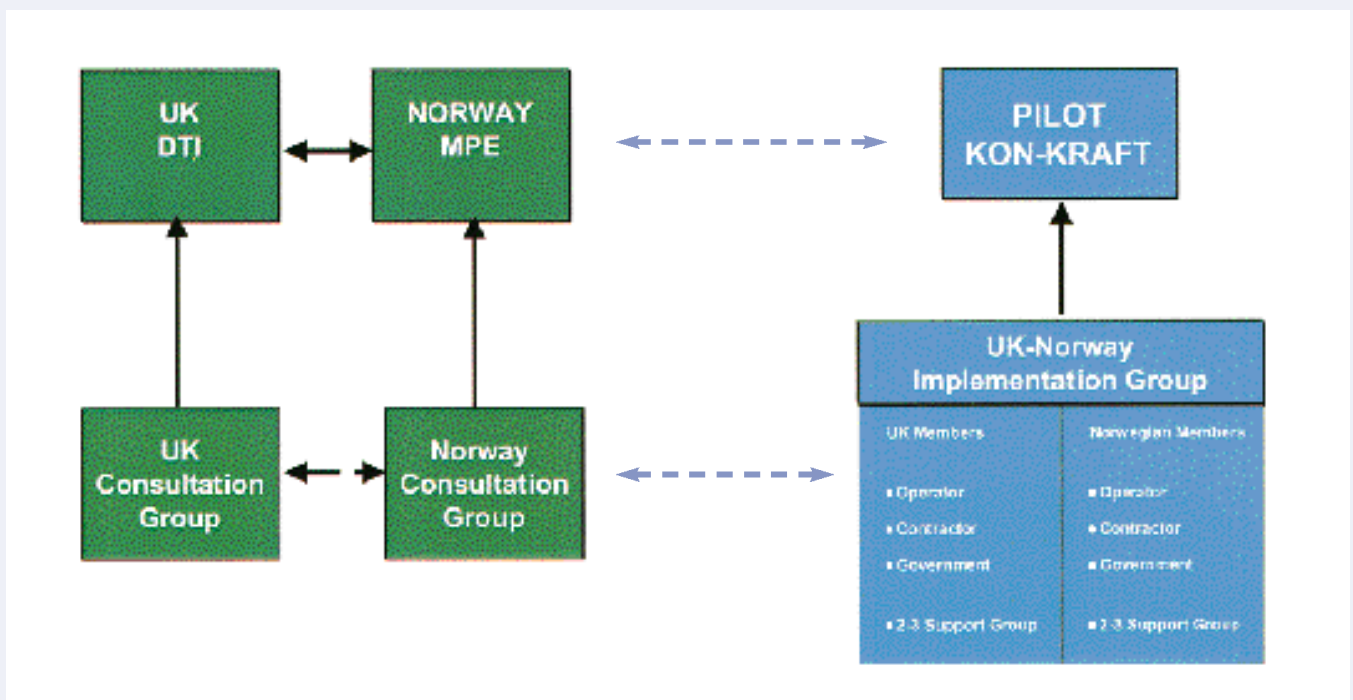
Joint Implementation Group

The Joint Implementation Group will be responsible for facilitating the adoption of all of the recommendations from this report and monitoring progress. The only exception will be the work on Recommendation 4 on the consideration of a new Framework Agreement. DTI and MPE will be the responsible parties but will

update the Implementation Group on progress at regular intervals. Consultation Group.

Recommendation 5 from this report suggests the establishment of a Consultation Group to support the DTI and MPE on developing guidelines to support the existing Treaties and the new Framework Agreement proposed in this report. This group will be established by the Implementation Group. In recognition of the significant contribution made by the T and I and OS groups, it is anticipated that the Consultation Group will principally be drawn from the participants of these groups with additional expert support drawn on as and when the issues require.

The Implementation Group will be the principle conduit for progress updates to PILOT and KON-KRAFT and will keep in close contact with the Consultation Group and all other action parties noted in the recommendations above. KON-KRAFT will be responsible for ensuring OLF is kept up to date.



COMMUNICATION ACTIVITIES

Delivery and Monitoring of Outputs

At the September meetings of both PILOT and KON-KRAFT the groups will be asked to endorse the proposals from this report and to establish the Implementation Group.

Communications Strategy

Communication of the outputs from the Workgroup to the UK and Norwegian industry sectors will be critical to the success of realizing closer co-operation. The following section outlines the Workgroup's plans to raise awareness of the Workgroup report and recommendations and to engage with the respective industry sectors:

Announcements: The UK and Norwegian Energy Ministers requested that the findings of the Workgroup were prepared in time for an announcement at ONS in August 2002. A joint announcement will be made by both Ministers on 28 August 2002 at ONS.

Report Launch: With the announcement of the report findings at ONS, this will be the principal vehicle for distribution of the report to the Norwegian sector. The report will be released immediately following the Ministerial announcements on 28 August 2002.

Promotion in the UK will be through a UKOOA/PILOT Business Breakfast, with support from KON-KRAFT, where Workgroup leaders will present the work of the group to attendees.

Communication Events: Continued promotion of the Workgroup findings will take place through:

- A series of Breakfasts and workshops in the UK and Norway
 - Engagement session sharing the findings of the Safety Trading Day held on 18th July 2002
 - The Norwegian Gas – The New Value Creator Conference, to be held in London on 28-29 October 2002.
- Dates for these events will publicised on the PILOT and MPE/OLF websites.

Share Fairs: PILOT's Progressing Partnership work (Ref .9), launched in 2002, is designed to enhance closer industry relationships. In promoting openness and facilitating better

planning throughout the supply chain, a number of UK operators presented their future investment plans to delegates at an event held in Aberdeen. This event was highly successful with over 500 attendees.

It is proposed that this model be enhanced to allow fuller presentations by operators on investment plans, business and cultural practices. Two events will be held; in Norway where UK operators will discuss the UK market and similarly in the UK where Norwegian operators will present to UK companies.

Cross-border Mentoring: Building on PILOT's Business-to-Business Mentoring programme, aimed at enhancing the understanding between the oil majors and small suppliers, a cross-border programme has been developed.

For the first phase, mentors from the UK and Norway will work with small companies in each other's sector to provide an increased awareness to both parties of the issues and influences affecting the different sectors from which they come. This will help facilitate closer cross-industry relationships thus bringing new value to the supply chain. Case studies will be developed and published at the close of the programme.

Report Dissemination: To ensure full access to the supply chains in both countries, the report, together with supporting case studies, will be available to download from the PILOT and MPE websites:

www.pilottaskforce.co.uk
www.oed.dep.no

There may be other events stemming from the continued work of the Workgroup and these will be publicised in due course on the above websites.

REFERENCES

1. Ekofisk Treaty, 1973 Cmnd 5423 (revised by Exchange of Notes in 1994) and White Paper No 110 (1972-73) to the Storting. - Transboundary oil transportation pipeline.
2. Frigg Treaty, 1976 Cmnd 7403 (revised 1998 Cmnd 5513 + Exchange of Notes 21 June 2001) and White Paper No 183 (1975-76) - Transboundary gas field development and associated transportation pipelines. Exchange of Notes in June 2001 covers Vesterled.
3. Statfjord Treaty, 1979 Cmnd 8282 (revised by Exchange of Notes March 1995) and White Paper No 15 (1980-81) Transboundary field development. Oil and associated gas.
4. Murchison Treaty, 1979 Cmnd 8270 (supplementary agreements 1981; 1983 Exchange of Notes 1999) and White Paper No 15 (1980-81) - Transboundary oil field development.
5. Heimdal Treaty, 1985 Cm 201 (revised 2002) - Transboundary transportation pipeline. Transport to UK, via Brae and Forties systems, of petroleum liquids from Heimdal and other fields.
6. Framework Agreement, 1998 (Command Paper due to be published by FCO shortly) and White Paper No 73 (1998-99) relating to the Laying, Operation and Jurisdiction of Interconnecting Submarine Pipelines.
7. Offshore Infrastructure Code of Practice 1996 (DTI)
8. Norway, 2001 - Recommended Guidelines on the Rules and Procedures Governing Access to offshore Production Infrastructure
9. PILOT, 2002 - Progressing Partnership. The work of the Progressing Partnership Workgroup. 52pp.

WEB LINKS

Websites relevant to issues raised in this report include:

www.og.dti.gov.uk
www.oed.dep.no
www.pilottaskforce.co.uk
www.olf.no/tpa
www.ukooa.co.uk
<http://step.steel-sci.org> (Step Change in Safety)
www.fco.gov.uk
www.fpal.co.uk
www.achilles.com
www.transco.uk.com
www.gassco.no

Web-Appendices

www.pilottaskforce.co.uk and www.oed.dep.no

Value Creation Advisory Group

Evaluation of the Potential gain from improved co-operation

Cross-border use of offshore drilling units

The Norwegian Regulated Gas Transportation System

Case Studies

Safety

New field development case

Field re-development case

Large gas transportation/processing case

Liquids export pipeline – Norway to UK

Cross-border logistics

Power and telecommunications cable network

GLOSSARY

Abbreviations used in this document:

DEFRA	UK Department for the Environment, Food and Rural Affairs
DEMO 2000	Project related technology development in the petroleum sector
DTI	UK Department of Trade and Industry
EU	European Union
FPAL	First Point Assessment Limited
HSE	UK Health and Safety Executive
IADC	International Association of Drilling Contractors
Intsok	Norwegian Oil and Gas Partners
IR	Inland Revenue (UK)
ITF	Industry Technology Facilitator (UK)
JV	Joint Venture
JVP	Joint Venture Partner
LOGIC	Leading Oil and Gas Industry Competitiveness (UK)
MOMA	Mutual Open Market Access Theme Group
MOF	Ministry of Finance (Norway)
MPE	Ministry of Petroleum and Energy
NCS	Norwegian Continental Shelf
NPD	Norwegian Petroleum Directorate
NTS	UK's onshore National Transport System
NOVA	UK Oil and Gas Technology Venture Capital Fund
OG21	Oil and Gas in the 21st Century -National Technology Strategy for Value Creation and Competitiveness
OS	Operational Synergies theme group
Ofgem	UK Office for Downstream Gas and Electricity Regulation
OLF	Norwegian Oil Industry Association
PILOT/KK	Information exchange between PILOT and KON-KRAFT Theme Group
PTW	Permit to Work
SEPA	Scottish Environmental Protection Agency
SME	Small to Medium sized Enterprise
SUT	Statement of Conformance (Norway)
T and I	Transportation and Infrastructure, also used to denominate Transport and Infrastructure Theme Group
T and P	Transportation and Processing
TPUK	Trade Partners UK
UK	United Kingdom of Great Britain and Northern Ireland
UKCS	UK Continental Shelf
UKOOA	United Kingdom Offshore Operators Association

APPENDIX 1

OIL and GAS INDUSTRY COLLABORATIVE BODIES IN NORWAY and THE UK

KON-KRAFT (Norway)

KON-KRAFT is a co-operative body with the overall aim of enhancing the attractiveness of the NCS for investments. KON-KRAFT also aims to strengthen the industry's competitiveness both on the NCS and internationally. This will be achieved by setting up processes in which all participants in the value adding chain take part. The project will encompass many aspects of the oil and gas industry, and will concentrate the efforts in three main areas: framework conditions, work processes and technology development. Internationalization of the Norwegian offshore industry, competency development and productivity gains without compromising the highest standards within health safety and the environment, are also important areas for KON-KRAFT. The group is directed by a top management forum led by the Petroleum and Energy Minister of Norway.

PILOT (UK)

The successor body to the Oil and Gas Industry Task Force (OGITF) was established in January 2000 to secure the long-term future of the oil and gas industry in the UK. PILOT is made up of twenty-three key Government representatives and recognised leaders from the industry and meets on a quarterly basis.

To make PILOT's vision a practical reality, specific deliverables were defined. The strategy was for 10 years of industry/government co-operation aimed at achieving the following outcomes by the year 2010:

- Maintenance of a production level of 3 mboepd
- £3 billion per annum invested
- Prolonged self sufficiency in oil and gas
- Up to more than 100,000 more jobs than would have existed
- 50% increase in exports (by 2005)
- £1 billion per annum additional revenue from new business

APPENDIX 2

MINISTERIAL ANNOUNCEMENT OF WORKGROUP FORMATION

Text of Ministerial Speech at the Transformation of Norway's Oil and Gas Industry Conference on 1st November 2001, announcing the formation of the UK-Norway Co-operation Workgroup.

"The last 12 months have witnessed a major step forward in co-operation between our 2 countries. The joint Trade Partners and INTSOK conference last October proved to be a most constructive forum leading to further discussion in a number of areas:

- Maximising resource value through greater use of combined infrastructure
- Prolonging asset life and jobs by:
 - Harmonization of standards
 - Operational synergies
 - Opening of markets
 - Research and development
- Increasing joint share of global exports by joint marketing in third-party countries.

"A further conclusion was that Governments were critical to success. In light of this, senior officials of both the UK and Norwegian Governments took part in a roundtable discussion at September's Offshore Europe Conference and Exhibition on the subject of "Unlocking Value through New Relationships".

"This whetted the appetite for co-operation by both countries - a point clearly illustrated at the most recent meeting of PILOT, the UK equivalent of Toppledorforum. At that meeting we discussed UK-Norway co-operation and I was struck by the many positive remarks from UK industry leaders. From these discussions came a proposal to form a joint PILOT/Toppledorforum working group. It seems obvious to me that this is a logical next step.

"So today I am announcing the go-ahead for this working group. I have spoken with my colleagues in the Norwegian Government who share my enthusiasm for progress in this area and I have asked my officials at the DTI - with their opposite numbers - to co-ordinate the group. I expect to have everything in place to allow the inaugural meeting to take place during the first quarter of next year. And I anticipate seeing early evidence of progress in the months that follow."

APPENDIX 3

WORKGROUP TERMS OF REFERENCE

Overall Aim

Enhancing commercial co-operation between UK and Norway on all aspects of the oil and gas industry.

Objectives

The Workgroup will be called "**The UK–Norway North Sea Co-operation Group**". The objectives of the Group are:

- To develop a greater level of understanding at a Government, Industry and Contractor level of how cross-border co-operation can enable the optimum development of the North Sea in the near term.
- To develop an improved understanding of any barriers acting to inhibit the optimum development of the UK-Norway North Sea in the near term and to make practical recommendations to address any such barriers, including the sponsorship of joint activities.

The Group will explore the potential for value creation through collaboration in 4 key areas:

- 1 Cross-border transportation and infrastructure
- 2 UK/Norway operational synergies
- 3 Mutual Open Market Access for Contractors and Suppliers
- 4 PILOT/KON-KRAFT experience and information exchange

Deliverables

Outputs from the group will include:

- A detailed case for action, including identification of the size of the prize in each key area, the barriers acting to inhibit optimum development and recommendations for action
- Recommendations on how to address any such barriers, including but not limited to proposals for joint industry activities, framework changes and treaty negotiations
- Identification of examples of potential value creation through increased cross border collaboration including the recommendation of projects for future co-operation

Timing

- The Workgroup will meet at least bi-monthly beginning on 7 January 2002 for 6 months.
- The Workgroup's report of agreed findings and recommendations will be issued in time for ONS in August 2002.

Membership and Resourcing

- Membership of the Workgroup (see Appendix 3) will aim to promote commercial collaboration across the border. Membership will be at a senior level with Government and Industry represented and will be drawn from the existing PILOT/Toppledorforum membership.
- All Workgroup members represent the interests of their respective industry communities in the UK and Norway and not individual company interests.
- To achieve its objectives and deliverables the Work Group will draw on the experience and expertise of the Support Group and of existing, broadly parallel, organizations such as DTI/MPE, OLF/UKOOA, INTSOK/TPUK.

Communication

The Workgroup is committed to transparency and details on the work of the group will be published in the UK on the PILOT website and in Norway on the MPE website.

APPENDIX 4

WORK and THEME GROUP PARTICIPANTS

UK-NORWAY NORTH SEA CO-OPERATION WORKGROUP	
UK	NORWAY
Tom Botts (Shell) Iain Todd (DTI) Scott D. Urban (BP) Sir Ian Wood (Wood Group)	Henrik Carlsen (Statoil) Gunnar Gjerde (MPE) Johan Nic Vold (Norske Shell) Sverre Skogen (Aker Kvaerner)
SUPPORT GROUP	
UK	NORWAY
Andrew Hogg (BP) Angela Latta (DTI) Fiona MacLeod (Shell) Bill Murray (Industry Leadership Team) Ricky Verrall (DTI)	Kjell Erik Drevdal (Prosafe) Svein Roar Engelsen (Statoil) Erik Johnsen (MPE) Erik Talleraas (Norske Shell) Halvor Musaeus (MPE)
TRANSPORTATION and INFRASTRUCTURE THEME GROUP Sponsors – Scott D Urban (BP) and Johan Nic Vold (Norske Shell)	
UK	NORWAY
Simon C Bennett (BP) – Lead Paul Betts (ExxonMobil) Tim Bushell (Paladin Resources Norway) Randy Cleveland (ExxonMobil) Davis Farthing (Conoco) Andrew Hadjitofi (BP) Andrew Hogg (BP) Lesley Henty (Phillips) Andrew Knights (TotalFinaElf) Peter Jones (Marathon) Gerry Macdonald (TotalFinaElf) Jean-Marc Noiray (TotalFinaElf) Michael Shelton (BG) John Skipper (BP) Ben Taylor (Shell) Les Thomas (Marathon)	Erik Talleraas (Norske Shell) – Lead Rune Bråthen (Statoil) Arne Øystein Pedersen (TotalFinaElf) Chris Spencer (Norske Shell) Svein Birger Thaulé (Gassco) Geir Lindholt (Norsk Hydro) Terje Totland (Norsk Hydro) Olaf Devik (Norsk Hydro) Hans Åsmund Strand (Statoil) Tore Ulleberg (Phillips) Arne Øystein Pedersen (TFE)

APPENDIX 4 cont'd

WORK and THEME GROUP PARTICIPANTS

OPERATIONAL SYNERGIES THEME GROUP Sponsors – Tom Botts (Shell) and Henrik Carlsen (Statoil)	
UK	NORWAY
Mark Carne (Shell) – Lead Wil Boef (Shell) Brian Cavan (BP) Terry Cooper (TotalFinaElf) Pat Dinan (Phillips Petroleum) James Hargreaves (KerrMcGee) Trond Erik Johansen (Conoco) Robert Kehoe (TotalFinaElf) Fiona MacLeod (Shell) Iain Montgomery (ExxonMobil) Mark Swartjes (Shell) Richard Tocher (Conoco) Roger Wilson (Marathon)	Svein Roar Engelsen (Statoil) – Lead Rein H Brand (TotalFinaElf) Audun Gunnarsen (Statoil) Aud Haugen (Norske Shell) Odd Havre (Norske Shell) Per Thorfinn Knudsen (Statoil) Sigurd Loug (BP) Robert Skrede (Phillips) Edward Smith (ExxonMobil) Øyvind Straume (Norsk Hydro)
MUTUAL OPEN MARKET ACCESS THEME GROUP Sponsors Sir Ian Wood (Wood Group) and Sverre Skogen (Aker)	
UK	NORWAY
Bill Murray (AMEC) - Lead John Smith (Subsea7)	Kjell Erik Drevdal (Prosafe) – Lead
The following companies provided personnel to participate in steering group meetings:	
Abbott-KCA AMEC Upstream Oil and Gas Consafe Costain Oil, Gas and Process Limited Hedley Purvis Ilseburn J Ray McDermott Mitsui Babcock Motherwell Bridge Subsea7 Wood Group	Prosafe Drilling Services INTSOK Achilles Roxar Scandpower Pathfinder Malm Orstad Tri-Tool Altinex Proserve
PILOT and KON-KRAFT EXCHANGE THEME GROUP Sponsors – Iain Todd (DTI) and Gunnar Gerde (DTI)	
UK	NORWAY
Angela Latta (DTI)	Kjell Arne Oppeboen (KON-KRAFT)
VALUE CREATION ADVISORY GROUP Sponsors – Workgroup	
UK	NORWAY
Raymond Hall (BP) Peter Grieve (Shell) Mike Earp (DTI)	Tormod Slatsveen (NPD) Lars Erik Aamot (MPE) Morten Nygaard (Statoil)

