Thought leadership from PwC’s Aberdeen-based Centre of Excellence for Oil & Gas. April 2014. Innovation and collaboration are key to our success. Are you ready to meet the challenge?

Northern Lights
One vision, one strategy

Defining moment for the UK North Sea

pwc.blogs.com/scotland/northern-lights.html
I am delighted to introduce this, the latest in our series of publications under the title Northern Lights.

The UK North Sea is at a defining moment in its history. Declining production levels, decommissioning and rising costs are all fuelling uncertainty. This uncertainty threatens to destabilise the future of the Oil & Gas industry and is borne out by a number of recent project delays and postponements, as well as declining levels of exploration.

We believe, however, that huge potential exists to maximise economic recovery through the future efficient delivery of oil and gas from the UK North Sea. The key to this will be innovation and collaboration – across industry, academia, and the public sector.

Much more than a five year cycle, there needs to be a strategy for the longer-term future of the industry. We need to develop market solutions enabled by the new independent regulator including:

- Removing political and fiscal uncertainty to provide stability;
- Exploring new business models and solutions;
- Defining how cost reduction can be delivered;
- Improving production through enhanced performance; and
- Supporting the must-have technological advances needed to inject innovation into the sector.

Acting in silos makes change hard to achieve. If the entire UK North Sea industry acted as one, we would be able to plan, innovate and grow through an integrated strategy. This would encourage new investment, deliver improved asset management and underpin the success of essential decommissioning initiatives.

By collaborating under one cohesive vision to develop vital skills, innovation, infrastructure and technology, we have an unprecedented opportunity to build a thriving future.

Aberdeen’s ability to rise to any challenge is not in doubt. Provided we engage, collaborate and build trust as an industry, Aberdeen and the UK North Sea can do much more than just survive.

We can maximise the economic recovery to bring not only improved returns to stakeholders, but also greater energy security to the UK. This will also drive significant economic benefits in employment, government revenue and local business opportunities.

It’s time to get started.

Kevin Reynard
Aberdeen Office
Senior Partner

We need to take a more strategic and integrated view to extend the life of the North Sea for all businesses.

As one example, we believe the area of supply chain management could adopt some of the more advanced practices we see in other relevant industry sectors.

The opportunity to address sources of waste and inefficiency in a structured and integrated way (not a tactical cost-cutting exercise) could reduce the industry cost base by £2-3bn per year. This would improve competitiveness and sustain the industry into the longer term.

If we choose not to change, then we risk sleepwalking into an early sunset for the North Sea industry and Aberdeen in particular.

This report has been produced by our Aberdeen-based Centre of Excellence for the Oil & Gas sector. We are grateful to all those in the industry, in the respective trade bodies and in government who gave their time and thoughts to us during the development of this latest edition of Northern Lights. The report is concerned in particular with Aberdeen as a focal point for the Oil & Gas sector in the region. To that end, instead of referring to the more tightly defined ‘UK Continental Shelf’, we refer to the ‘UK North Sea’ as the broader market area served by businesses in Aberdeen.
The life of the UK North Sea

Is this the tipping point?
A key constant in the UK North Sea’s life to date has been the question of its ongoing longevity. The projections of the 1970s and 1980s have long since been surpassed as technology has opened up new exploration opportunities and extended the life of existing fields. New companies have entered the market with innovative ideas that have allowed the sector to continue to operate profitably and safely for far longer than initially envisaged.

Is this a sustainable trend, or do current declining production levels and increasing costs indicate that a tipping point has been reached?

Does uncertainty now threaten the future life expectancy of the UK North Sea?
In this publication we focus on the areas of uncertainty around the UK North Sea’s future. We believe this uncertainty threatens to undermine the future of the Oil & Gas sector.

“Exploration is facing its biggest challenge in 50 years. Taken together, the last three years have seen the lowest rate of exploration activity in the history of the UK Continental Shelf. This year, … even if all the [planned] wells proceed, the rate of drilling is too low to recover even a fraction of the potential resources.”

A broad strategic framework must be developed for the industry, to create certainty under the auspices of a new independent regulator (as proposed by the Wood Review). As well as providing the new direction that is now so essential, this framework must be backed with the authority needed to ensure that the industry delivers against it.

Key components should include:
- Driving out political and fiscal uncertainty;
- Defining how cost reduction can be delivered;
- Improving production levels through better stewardship;
- Supporting the technological advances that inject innovation into the sector; and
- Implementing integrated resource planning.

With falling exploration levels and production efficiency at historically low levels of around 60%, it is now critical to focus minds on the next 40 years – rather than simply the next five.

Realising a new vision
Aberdeen’s ability to rise to any challenge is not in doubt. Beyond question, the city has the skills and resources needed to lead the way towards securing the future efficient delivery of oil and gas from the UK North Sea. But a new vision and new ways of working are urgently required. We believe that for the UK North Sea to remain competitive, we need to reduce costs significantly – billions of pounds of costs – as well as increase production efficiency. To achieve this, we must engage, collaborate and build trust as an industry.

A number of areas are critical to tackling the challenge:

- Access to capital
- Fiscal environment
- City and infrastructure
- War for skills and talent
- Innovation
- Supply chain

£44bn
Total capital investment committed to projects already in production or under development at the start of 2013
In recent months, many column inches have been written discussing and analysing these same themes. Although the need for action is well recognised, the truth is that an industry accustomed to operating in diverse interests finds change difficult to achieve.

If the entire UK North Sea Oil & Gas industry was operated as a single aligned business, it would be able to better plan and control its future. It would have a clear strategy, a focused vision, and the authority needed to deliver upon it. But because this is not the case, the multiple stakeholders involved must look for other ways to achieve similar goals.

**Seizing opportunity**

Opportunities are significant at all stages of the asset life cycle, as underlined by the fact that investment is now at its highest ever levels. And while overall exploration through new wells has declined, it is exciting to see the continuing drive to explore and develop in new areas, such as West of Shetland, with new technologies and new ways of working.

“Total capital investment committed to projects already in production or under development totalled £44 billion at the start of 2013, £13 billion higher than 12 months earlier.”

We also need to look to the unavoidable requirements of decommissioning, which we believe represent a rich source of opportunity for the industry, as well as a challenge. By working together, and taking advantage of the now certain tax reliefs available to companies to develop innovative decommissioning projects, we can turn a potential loss of £35bn into a new business model of opportunity that has yet to be fully exploited.

Since UK taxpayers are effectively footing the bill for half the costs of decommissioning, it is in all our interests for as much as possible of the work to be completed by the UK, rather than overseas companies, and to protect their revenue base.

“Total decommissioning expenditure is expected to be at £40.6 billion (2013 money) by 2040, of which £37 billion is for currently sanctioned installations and the additional £3.6 billion to decommission developments that are yet to be approved.”

In an increasingly cost-conscious environment, where operating cost increases reflect the aging of assets, margins are subject to unprecedented strain. We will see the prioritisation of expenditure and investment in renewing these assets. However the record levels of investment experienced in 2013 provide a clear indication that investors continue to identify real opportunity in the UK North Sea.

**Who will survive and thrive in the UK North Sea of the future?**

We believe that to survive and thrive in this environment, companies need decisive leadership combined with the courage to work collaboratively. Winners will display a nimble, flexible and entrepreneurial outlook, and the willingness to innovate and exploit new ways of working.

We have seen the positive impact that new entrants into the sector can have, both as operators and throughout the supply chain. In recent years, mature fields have been revitalised through new technologies. After a dip in 2009 and 2010, revenues and profits of many Oil Field Service (OFS) companies are once again on the rise. Yet it has been observed that the existing supply chain does not yet have the capacity to support the future requirements of the sector in areas such as decommissioning.

To create future success, we need a central vision, but we also need to be willing to embrace new technologies, new ways of operating and new business partnerships. Provided we work together to plan and implement the infrastructure needed for this industry to thrive, we will be ready to realise ongoing opportunities – maximising the economic recovery of the North Sea for the benefit of everyone.

**Securing the UK North Sea’s future**

The life of the UK North Sea poses complex and difficult questions. We do know, however, that it is clear that as perhaps the prime example of a basin with assets at all stages of the life cycle, an integrated strategy is required to encourage new investment, deliver improved asset management and underpin the success of essential abandonment and decommissioning initiatives.

Provided this can be achieved there is every reason to be optimistic for the longer-term economic security of the UK North Sea.

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2. Oil and Gas in the UK: Facts and Figures.
3. Activity Survey 2014, Oil & Gas UK.
A stable fiscal environment to encourage investment in all parts of the Oil & Gas industry

In the relatively short space of time since PwC’s first Northern Lights report was published in 2011, the UK’s fiscal regime for both Exploration and Production (E&P) and OFS companies has changed significantly – much of it for the better. However, there is still a proliferation of new tax costs, several of which have arisen unexpectedly.

We believe that government urgently needs to provide strategic clarity in this area so the industry can plan ahead. A lack of fiscal stability at this defining moment in the UK North Sea life has the potential to seriously damage business prospects within the sector.

So, what has improved?

One real positive is the legislation that has been introduced confirming the tax reliefs available to businesses undertaking decommissioning projects – irrespective of future changes in government. The first batch of tax deeds under this regime was issued in October 2013. This new system – which provides for tax relief at 50% (or 75% for older fields) – should be greatly welcomed by the companies facing these obligations. OFS companies looking to support this activity should also benefit from a higher level of certainty over this massive market opportunity.

OFS companies will continue to benefit from reductions in the corporate tax rate, which will fall to 20% by 2015. By making the UK more competitive fiscally, this should promote the attractiveness of OFS activity in Aberdeen, particularly in comparison to other countries around the North Sea basin.

Seismic fiscal shocks

Positive

- Introduces 100% FYA, 100% CAPEX
- 6% compound increase on exploration expenditure
- Transfer 2005 FYA to 2006 FYA
- Ring Fence expenditure supplement on all losses
- First new field allowance
- Brownfield allowance

Negative

- 10% Supplementary Charge on UK E&P
- Supplementary Charge increased to 20%
- Supplementary Charge increased to 32%
- Limited deduction available for decommissioning costs
- Baseboat charter restrictions and offshore employment intermediaries legislation
Additional encouragement comes from the increased tax reliefs for innovation, effective from April 2013. This revised R&D tax regime gives scope, for the first time, for an ‘above the line’ financial benefit.

In its drive to win more business for the UK, much has been made by the government of the need to make the tax system more attractive. Forming part of this commitment, the measures described above have certainly been welcomed by business. We have started to see a beneficial effect in the wider corporate environment, with new entrants being attracted to the market, including a number of drilling contractors that have recently moved their parent companies to the UK.

**Stings in the tail?**

However, this progression of welcome improvements in our tax regime has been rudely interrupted by a series of unexpected shocks. Our 2011 *Northern Lights* report saw an E&P sector still reeling from increases in the Supplementary Charge to 32% and consequently steep rates in total tax charges on production.

Following a surprise announcement in the 2013 Budget and a period of consultation, new legislation has been introduced, to apply from April 2014, in relation to ‘offshore employment intermediaries’, the use of which is prevalent in the offshore industry. By widening the scope of an employer’s national insurance contributions, this new set of rules will result in an increase in employment costs for the industry. In addition to the economic impact, the new rules also add to the compliance burden for businesses employing workers in the UK North Sea, specifically by requiring greater assurance over supply chains for staff and more extensive record-keeping.

More recently, in the 2014 Budget Statement, the announcement of yet another proposed fiscal change has thrown part of the industry into turmoil. The proposed change will restrict the tax relief available to charterers of Drilling Rigs and Flotels under bareboat leases to only 7.5% of the asset’s historic costs. The potential effect of this could drive a tenfold increase in the effective tax rate on specified UK North Sea activities. It is difficult to see how this change is justified – especially because its scope will extend to charter terms struck at arm’s length between independent parties.

Of particular concern here is the impact that this potentially significant increase in tax could have on the execution of existing and future, projects – either by undermining their financial viability or, at the very least, by making them no longer competitive when benchmarked against commercial opportunities elsewhere in the world.

In the recent 2014 Budget Statement, the Chancellor announced a review of the fiscal regime surrounding the UK Continental Shelf, with initial conclusions expected in Autumn 2014. We would strongly encourage active participation by the industry through any consultation process that this may entail.

**Great progress has been made but need for ongoing clarity**

Overall, great progress has been made in making the UK tax system progressively more attractive to all businesses looking to invest in the UK North Sea. However, a more worrying pattern seems to be emerging, with a series of shock tax announcements that are causing real concern to the industry and damaging investor confidence.

To build and maintain confidence, we believe government must commit to providing greater longer-term clarity around future fiscal initiatives. The forthcoming review of the fiscal regime to support the Wood recommendations is a golden opportunity to deliver this.
War for skills and talent

A smarter approach to talent development is needed
Aberdeen’s ability to attract talent is critical to maximising the life of the UK North Sea. But has too much focus been placed on this particular aspect of the resource equation?

Addressing the current skills shortage needs to go beyond simply searching externally for new sources of talent. The UK North Sea has the capacity to inspire and grow pools of talent by retaining and transferring expertise from inside and outside the industry. The key will be for businesses to challenge themselves to identify what they as organisations can do differently – both on their own and in collaboration with other industry participants.

We believe that the companies that introduce innovative employee models will be the ones that succeed. They will attract, retain and enhance the productivity of their talent and, together, improve the longevity of the UK North Sea.

Significant efforts to change perceptions
Traditional negative perceptions of working in the Oil & Gas industry are outdated. The landscape is changing beyond recognition. World-leading technologies are now coming out of the UK North Sea, including breakthrough innovations that have the potential to change the lives of the global population. Sustainable business practices are replacing former ways of working. And the range of skills and resources now in demand is wider than ever before.

Since our first Northern Lights report, significant efforts have been made to attract people into the industry. A particular area of success has been in recruiting ex-armed forces personnel. This sector has a proven and transferrable skillset, and up to 20,000 former forces men and women are set to join Oil & Gas companies over the next three years.

Companies and trade bodies such as OPITO have worked hard to break down the public’s perceptions of an archaic and outdated industry. They have sought to promote the sector as thriving rather than languishing and to position the UK North Sea at the forefront of technological advances. Looking forward, decommissioning can provide a unique and powerful platform for Aberdeen to further enhance its status as a Oil & Gas Centre of Excellence.

But is all of this really enough?

Implications of the war for talent include:

1. Driving upwards the cost base of production
2. Diluting staff loyalty and reducing adherence to corporate values
3. Creating behavioural risk in performance delivery
4. Potentially compromising safety

We believe that the companies that introduce innovative business models will be the ones that succeed.
**Addressing the talent shortage – a complex equation to balance**

Multiple open vacancies, the aging profile of the workforce and the increasing proportion of contractors are all factors that have contributed to a very volatile market for people. As a result of high demand for talent and experience, wages have spiralled.

To address and break this cycle, the talent equation needs to be better balanced.

We believe that organisations must provide more focus on reducing the demand side of the talent equation. Some of the alternatives include:

- **Outsourcing** to create capacity, moving less critical, non-core functions away from Aberdeen, possibly to other parts of the UK where there is greater resource capacity

- **Improving performance** by revisiting the company’s operating model to seek out more efficient and innovative ways of working with the same number of people, avoiding duplication of roles

- **Retaining** existing staff by shifting the emphasis clearly onto personal development in a way that will improve loyalty, output quality and productivity

- **Embracing technology** by investing in opportunities for automation, reducing the level of human intervention in certain areas while freeing up talent to focus on value-adding activities

- **Collaborating** within the business and across the sector as discussed in the Wood Review

- **Coaching** to address what can be a chasm between experienced veterans of the industry and the new crop of front-line leaders

- **Investing in leadership** at the front line, to turn great engineers into even greater people managers who will positively impact productivity and safe working.

**How do we balance the talent equation?**

**Supply**
- Military and other sectors
- Academies
- Sector skills strategy

**Demand**
- Outsourcing
- Improving performance
- Retaining
- Embracing technology
- Collaborating
- Coaching
- Investing in leadership

The industry has focused on increasing the supply of talent

Businesses can also reduce their demand for new talent to balance the supply/demand equation

**Innovate to differentiate**

Successful organisations will innovate to differentiate themselves as employers of choice in attracting and retaining Oil & Gas professionals.

This will require greater discipline and structures in growing talent from within and a clearer focus on accessing new people from outside of the sector. It will mean a move away from poaching from within the current talent supply chain looking internally at how they can create a strong employee proposition with distinctive reward packages. With a focus on the values of the organisation, companies will ensure that employees recognise their critical role in the organisation to drive greater loyalty, engagement and productivity. And in so doing they will prioritise the vital role of front-line leaders as the first point of contact for growing talent and setting the tone for most employees.

Strong direction from the top of the organisation will be essential. Informed by a strategic view of the competence and capability needed to deliver the company’s longer-term objectives, this will mean making challenging decisions on requirements and taking bold action to balance the talent equation.

Failure to do things differently will perpetuate the skills shortage, destabilise the UK North Sea as a whole, drive unsustainable reward spirals and accelerate the risk of flight to what may become more attractive Oil & Gas Hubs abroad.
Innovation is, and has always been, critical to the UK North Sea
Since the 1960s, the sector has had a proud heritage of innovation, starting with the industry pioneers who first developed ways to cope with waves, wind and undersea geology. Historically, the critical innovation in the UK North Sea has focussed on technology and engineering research. More recently, the emphasis on safe practices and working environments has seen world-class equipment and practice innovation introduced to the sector.

However, looking forward, the mature nature of the UK North Sea with smaller talent pools, deeper reservoirs, and higher combinations of pressure and temperature will only serve to drive production costs upward. A shift in emphasis will be required to support new business models and increase collaboration, with industry, entrepreneurs and academia working together to hothouse and fast track new ideas.

Beyond doubt, R&D will be as important as the identification of new reserves in securing the future of the UK North Sea. But companies need to strike a balance. Too much focus on innovation risks draining resources – too little will hinder competitive advantage. There is also a longer-term risk that, as reserves deplete, the industry could fail to capitalise on opportunities to export technology and know-how to new offshore areas, support the development of renewable energy sources or transfer knowledge horizontally to other industries.

Rising to the innovation challenge
The recent UK government Technology Strategy explicitly addresses the Oil & Gas sector, setting the following targets for improvements:

1. Double exploration recovery rates to more than 35%;
2. Increase the average oil recovery factor to more than 50%; and
3. Increase production efficiency to over 80%.

We believe there are three key ways that innovation can support the sector in realising these challenges:

1. Finding new reserves, for example through using increased computational power to improve seismic accuracy.
2. Increasing production efficiency and reliability, for example, great progress has been made in researching and using designer materials for purposes such as to reduce rust.
3. Maximising recovery through different methods of enhanced oil recovery being brought into practice.

What is the evidence currently?
Between 2005 and 2010, the number of patents relating to the global extractive industries more than doubled. In PwC’s 17th Global CEO Survey, participants from the energy sector clearly indicated that they regard innovation as a competitive necessity.

However, when compared to Norway, there is considerable ground to make up. The length of time taken to implement new technology in the UK North Sea is around twice that of its near neighbour. In Norway, strong alignment between oil companies (primarily driven by Statoil), the research institutes and the supply chain brings clear benefits. There is a clear shared strategy and focus on energy efficiency, enhanced oil recovery and new technology. The long-term vision is to realise subsea factory production.

79%
79% of the top innovators in other industries reported they had a well-defined innovation strategy, compared with fewer than half of energy sector respondents in the most recent Global CEO Survey.
Equivalent UK businesses could lose out over time, ceding vital competitive advantage to competitors across the North Sea and putting at risk the opportunity to export products and services to emerging deep-water production areas such as the Gulf of Mexico and Brazil.

**Addressing the barriers to change**

We hear concerns that risk aversion underpinning safe-working can create a barrier to the adoption of new products. It can perhaps be summed up more colloquially as ‘the race to be second adopter’ of a new idea.

In addition, OFS entrepreneurs can find the development burden – including the cost of field trials – to be prohibitive. The return on investment for offshore projects takes much longer than equivalent onshore innovation.

In this context, the significant challenges facing CEOs include the following:

- Having a clear innovation strategy that is aligned with the need for technological developments in the sector;
- Measuring the impact of new innovations in terms of real value;
- Identifying the right people, within and outside the sector, to deliver new ways of operating;
- Establishing the right partnerships including new to the industry entrepreneurs, academia and government bodies;
- Collaborating to bring synergies in R&D within UK North Sea; and
- Fast tracking innovation processes to reduce the time taken to bring new ideas through to commercial use.

The UK government has provided fiscal stimulus for innovation through the introduction of the patent box regime and through steps to make R&D tax reliefs more accessible. However, it is our experience that the sector has been relatively slow to take advantage of the patent box regime – perhaps surprising given that it offers a lower tax rate on income.

Great opportunities for the next generation of innovators

As UK North Sea production declines over the coming decades, our ability to capitalise on the results of many years of innovation will assume increasing importance. We would like to see more strategic focus and greater collaboration by all stakeholders in the UK North Sea so that it becomes the clear global leader in innovation.

In addition, great innovation produces new ideas and opportunities for completely unrelated sectors and services. Perhaps the best examples of this were the ideas spun out of the space programme from the 1960s. We see a real opportunity for the next and subsequent generations of innovators emerging from Aberdeen to guarantee the UK North Sea’s continued success story.

The sector must be open to external ideas and look for the examples of other industries that have achieved this success. Aberdeen already achieves the second highest level of patents in the UK. We must build on this for the future.

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4 Gateway to Growth: innovation in the Oil & Gas industry, PwC Report, 2014.
Supply chain

Opportunity to improve performance
Increasing production costs are a defining feature of the UK North Sea and, as we move further into late-life operations, these costs are likely to rise still further. With even greater reliance being placed on a stable or increasing oil price to guarantee margin, there is a growing risk of capital reallocation to higher-margin fields.

Accounting for more than 50% of operating costs, the supply chain holds significant opportunities for improved cost control and performance improvements that could significantly extend the UK North Sea’s competitive horizon.

We believe that by adopting collaborative working practices and working with a ‘one business’ mind set, the UK North Sea supply chain can develop sustainable long-term strategies for competitive advantage. There has never been a more urgent need to do so.

“A[The] supply chain now contributes £27 billion a year to the economy, about £7 billion being in exports. The UK is a world leader in subsea engineering, capturing 45 per cent of the global market.”

Driving efficiency... and savings
The UK North Sea is highly complex and there is no single answer to realising the savings that the sector needs to survive and thrive. Commentators suggest that the supply chain is less mature than other industries by up to 10 years in certain areas. Short term planning, the lack of integration and the need to redesign many aspects from project to project create challenges and drive extra costs.

While addressing these challenges will require a cultural, as well as a physical, shift the UK North Sea Oil & Gas sector stands to gain benefits similar to those already realised in other industries. The time to draw lessons and realise these well-publicised benefits is now.

Achieving sustainable improvement in your supply chain
Reducing the cost base of operations will require a multi-faceted approach. In our experience the areas that E&P companies could focus on to achieve sustained benefits include:

- Treating your supply chain as a strategic asset;
- Developing integrated end-to-end processes for supply chain management;
- Designing your organisation for optimal performance;
- Building the right collaborative model with appropriate integration; and
- Using metrics, such as contract measurement, to drive business success.

The contracting challenge
It is difficult and costly to administer contracts that have poorly defined scopes. There are significant variances from supplier to supplier – even for similar products or services. In the UK North Sea, cost-plus is still the primary model for execution of work. This methodology typically provides the supplier with minimal motivation to operate as efficiently as possible and minimise cost for the client. A principal cause of this can be poor scoping of work by the client which in turn limits the ability of suppliers to commit to fixed-fee projects.

“What we want to achieve: A supply chain increasingly focused on resource recovery, more aware of innovation to drive company growth, and firmly anchored in Scotland.”

Some companies are now beginning to invest more time up front to better define work in collaboration with suppliers. When done successfully, this can result in a clearer scope that allows for greater pricing clarity and cost certainty for both parties. Progress is being made in some areas, but there is a long way to go to match the leading practices of other industries.

£27bn
The supply chain now contributes £27 billion a year to the economy, about £7 billion being in exports.
**Need to effectively manage performance**

When contracts are signed, it is essential for there to be strong integration and knowledge transfer between supply chain and procurement teams and operations. All too often, however, this is overlooked. Issues typically arise from a lack of cross-department integration within operators and limited ongoing performance monitoring. One frequent consequence is that UK North Sea operators’ ability to understand and analyse performance across the supply chain is impaired.

All too often, operators simply do not have the performance-related information they need to manage current and future contracts effectively, or plan for improvements. With such substantial capital and operating expenditure in the UK North Sea, this situation provides significant opportunities for the acceleration of efficiencies. We are seeing some improvements in this area, with companies now considering the use of enhanced and standardised performance monitoring tools, and aligning these to contract incentivisation, including penalties for poor performance. But more needs to be done.

Once operators improve both performance management and oversight of contract implementation, they will be equipped to recognise where projects are not structured to control the commercial elements of investments. Typically, day-to-day contract management is dealt with by operational staff, including engineering teams, who are under pressure to deliver high volumes of work and departmental targets. With limited time to dedicate to assessing the wider commerciality of decisions operators’ overall commercial focus can be reduced resulting in increased costs.

**The key to financial viability for the UK North Sea**

Enhanced collaboration is essential to future UK North Sea success. Collaboration between operators and across the wider supply chain will help the industry to plan more effectively and further into the future.

This will allow issues such as the lack of supplier choice, competition for resources and increased costs to be addressed. Our experience indicates that supply chain costs might be reduced by up to 10% resulting in increased profitability.

**Addressing the obstacle to secure sustained improvement**

Although positive steps have been taken by a number of companies, the industry as a whole has been slow to start implementing these changes. With such a fragmented approach, a few front-runners have been able to seize opportunities for competitive advantage. But inefficiencies persist throughout the supply chain.

The industry must address the key obstacles to supply chain improvement by taking a more strategic approach. This means better integration within and between businesses. It requires a focus on planning, scoping and costing of projects as well as enhanced ongoing performance monitoring and commercial management. This commitment will significantly improve future financial viability and success of the UK North Sea.

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7 Pilot report 2009 ‘A powerful and effective partnership’.
Experience and expertise bring rewards
The E&P sector was hit hard by the severe tightening of lending throughout the global financial crisis. Marginal projects suffered the most. Lenders became more risk averse, requiring either secure debt ratings, or security over a portfolio of assets supported by production income. Now, as we emerge from the wider economic downturn, have attitudes started to change?

Recent evidence suggests a strong appetite to provide debt finance for the upstream sector of the UK North Sea industry. The over-subscribed refinancing of companies such as Dana and Ithaca provide examples of this trend. Most banks regard the emergence of new entrants into this sector as a growth area. This is particularly true for well-diversified portfolios of assets that are technically robust, economically sound and managed with experience and expertise.

“In 2013, capital investment reached an impressive £14.4 billion... investment is likely to remain above £10 billion until 2015.”

The structure of debt facilities remains very much dominated by reserve-based lending, although more sophisticated hybrid structures are also starting to emerge. There seems to be renewed interest in the bond markets, particularly in the high-yield and Norwegian markets, and we have recently seen retail bond issues by EnQuest and Premier Oil.

Reduced financing opportunities for exploration activities
The impact is perhaps most acutely felt when looking at exploration in the UK North Sea. Traditionally financed through equity, exploration has suffered in recent years from changes in investor appetites. Activity is mainly being funded through production cash flows and, in a few cases, through private equity. Combined with fiscal incentives, alternative sources of finance such as business angels and incubators will be key drivers for reigniting activity in this important area.

Emergence of new sources of funding for E&P activities
The UK North Sea is increasingly providing opportunities for smaller players looking to drive returns from mature assets, as well as making smaller-scale discoveries and developments. This activity is often being underpinned by investment from NOCs (national oil companies) and SWFs (sovereign wealth funds) seeking alternative sources of hydrocarbons to their own territories.

Oilfield services is buoyant
In the OFS sector, increasing confidence in international opportunities is driving an upturn in both investment and M&A activity. However, with investors and shareholders apparently taking a much more pragmatic and balanced approach to growth, we are unlikely to see a return to pre-2008 levels of activity.

Strong appetite for OFS opportunities is obvious, as evidenced by the recent arrival in Aberdeen of Wells Fargo and Santander. Banks remain focused on the long-term stability of cash flows and levels of scrutiny have increased in the last year.
Businesses should expect banks to place greater emphasis on conducting substantial due diligence, both financial and commercial, to gain comfort over the risks and long-term viability of any investment.

**Private equity continues to invest**

Private equity firms, including generalist funds, continue to show appetite for OFS opportunities, particularly where there is a robust international growth story. Having established itself as a strong development ground for OFS equipment and services, Aberdeen has benefited, with investors particularly interested in exploiting these innovations in emerging markets.

This has resulted in an upward trend in private equity valuation multiples. As appetite continues to rise, investors will need to take a cautious approach in order to mitigate the risk of industry volatility and cyclical impacts.

**So what are the hottest sectors within OFS?**

Given the relative maturity of the UK North Sea, current OFS activity is generally concentrated around operational expenditure, with a primary focus on asset integrity and life-of-field extension. With this in mind, the Inspection, Repair & Maintenance (IRM) sector is experiencing very high levels of activity, making it particularly attractive to investors. These companies are also benefitting from customer demand from other mature regions (such as the Middle East and Gulf of Mexico), providing a very positive story for any potential funding partner.

As operators within the UK North Sea move to more challenging, deeper environments, demand for innovative subsea products and services is also reaching new highs. This reflects the fact that subsea equipment and services can also be exported internationally into high-growth regions such as Brazil, West Africa and the Far East where offshore activity is currently booming.

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“Over the past four decades £300 billion has been invested in the UKCS, including £8.5 billion of capital investment in 2011. A further £31 billion is committed and in progress at start of 2012.”

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**New solutions to meet current funding challenges**

We have seen the signs of recovery with banking markets easing and investors including private equity, NOCs and SWFs emerging to provide new sources of financing in both the E&P and OFS sectors.

However, companies will have to work harder to tell their story and in particular the international dimension to it as investors will continue to be cautious. A strong strategy, clear leadership vision and the right governance and risk framework will be essential.

For less mature companies, the market remains challenging. The UK North Sea needs new entrants bringing innovation and new ways of working, yet it is a sector that can be relatively slow to adopt new technologies so companies can take much longer to reach the point of commercialisation.

We would like to see the emergence of finance in the form of venture capital, business angels and incubators to support these companies and to bring about the innovation that the sector very much needs.

Collaboration could also unlock new solutions to these challenges, and in doing so, ensure that Aberdeen retains its position as a hub of Oil & Gas innovation.

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9 Oil & Gas UK Activity Survey 2014.  
10 Oil & Gas in the UK: Facts and Figures.  
City and infrastructure

Big thinking required to drive a coherent approach

While other cities are grappling with the issue of stimulating economic growth, Aberdeen’s dilemma is how to keep pace with the booming energy industry it supports and the global footprint the region has established. Infrastructure, both in the City and the Shire (collectively ‘Aberdeen’), should be a key enabler for economic growth and prosperity.

Aberdeen City Council’s 2013 Strategic Infrastructure Plan (the ‘SIP’) is a major step forward, especially following on from a mixed track record of delivery. Transport, housing, connectivity and skills are all critical enablers for Aberdeen’s successful economic development. Our public officials must ‘think big’ to implement a coherent and effective infrastructure in which all these elements are integrated.

“Clustered around the Oil & Gas industry, Aberdeen hosts a sophisticated, globally connected knowledge based industry that places us in the enviable position of being one of the few places in the UK where real and identifiable opportunity for economic growth exists.”

A strategic plan for growth

Looking forward, the SIP defines a collaborative and integrated approach to creating a competitive city that, if implemented, will help secure a prosperous future. The overriding call for action is to make Aberdeen more attractive for the talent and investment it must attract to keep pace with the city’s economic growth as a global energy centre.

£57m

University of Aberdeen’s investment in the Sir Duncan Rice Library is, at £57 million, the largest capital fundraising project undertaken by the University to date.
The SIP recognises the need to play to existing strengths, to focus on where infrastructure is an enabler for growth and, importantly, to identify areas where a lack of investment would be a barrier to success.

**Good news... bad news...**
In our inaugural *Northern Lights* report in 2011, we highlighted the important role that the public sector plays in defining the future potential of Aberdeen as a global Centre of Excellence for the Oil & Gas industry. More recently, we have seen positive collaboration between industry and the public sector, underlining a commitment to work together to build a more integrated infrastructure.

“**Aberdeen is no longer just the centre of the Oil & Gas sector for the North Sea. It is home to a vibrant sector that supports enterprise beyond the city boundaries and the international Oil & Gas sector. It is a key contributor to the global Oil & Gas industry, with world class capability and skills and a highly mobile workforce.**”

Aberdeen is widely recognised as one of the UK’s most competitive cities – gross added value (GVA) figure per head of population in Aberdeen is 38%, above the Scottish average, and we enjoy one of the lowest unemployment rates in Scotland at 2.3% in the City and 0.8% in the Shire. Its economic activity supports investment that drives significant contributions to the UK Exchequer and underpins the future flow of tax revenues. There are significant investments underway in both the City and the Shire with new business parks and facilities at Westhill, Dyce, Bridge of Don and Kingswells. These will continue to attract and retain large multinationals to establish Aberdeen as their regional headquarters. This is all good news.

However, the city does not always inspire business confidence. The ongoing sagas around city centre development and regeneration, as well as debilitating in-fights between City/Shire and City/Scottish government are cases in point. There was also a major disappointment when the failure of Aberdeen’s bid to become ‘UK City of Culture’ for 2017 was attributed by some commentators to the lack of a coherent vision and ‘wow factor’.

Industry needs investment in infrastructure to attract talent, conduct efficient business and support operations that can compete in a global market. Proof that there is real ground to make up came from a recent survey²⁴ where Aberdeen did not earn a place within the top 10 energy cities globally.

**Infrastructure that supports business**

Although much more remains to be done, we are seeing encouraging evidence of Aberdeen’s commitment to put in place the infrastructure it urgently needs:

**Business facilities** – become, the new city-centre office developments at The Capitol, The Point and Marischal Square (the site formerly occupied by the unloved Council offices at St Nicholas House), all demonstrate that Aberdeen’s city centre has potential to be much more open for new business.
Education – underpins skills and provides culture and economic value. The University of Aberdeen, RGU and the North East Scotland College have earned international reputations for producing highly qualified, internationally marketable students. In recent years, we have seen significant capital investment on university campuses. For example, Aberdeen University’s investment in the Sir Duncan Rice Library is, at £57 million, the largest capital fundraising project undertaken by the University to date. RGU’s £170 million development of its Garthdee Campus is also significant. However, the Oil & Gas Academy of Scotland has yet to make its potentially distinctive mark on the education landscape.

“Scotland’s competitive advantage will be enhanced through investment in people, in companies, in technology and in infrastructure.”

Need to deliver coherent and determined action

In 2008, the World Bank stated that inadequate infrastructure in cities “can drive up the costs of doing business in urban areas and reduce firm productivity by as much as 40 per cent”. This carries a strong message for Aberdeen. The City and its stakeholders now need to deliver coherent and determined action on infrastructure priorities, or risk losing out to emerging rivals in the UK and abroad.

Provided public sector agencies and industry can work together for properly integrated infrastructure, Aberdeen will be well placed to realise its big city ambitions as a global focus for energy sector investment.
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