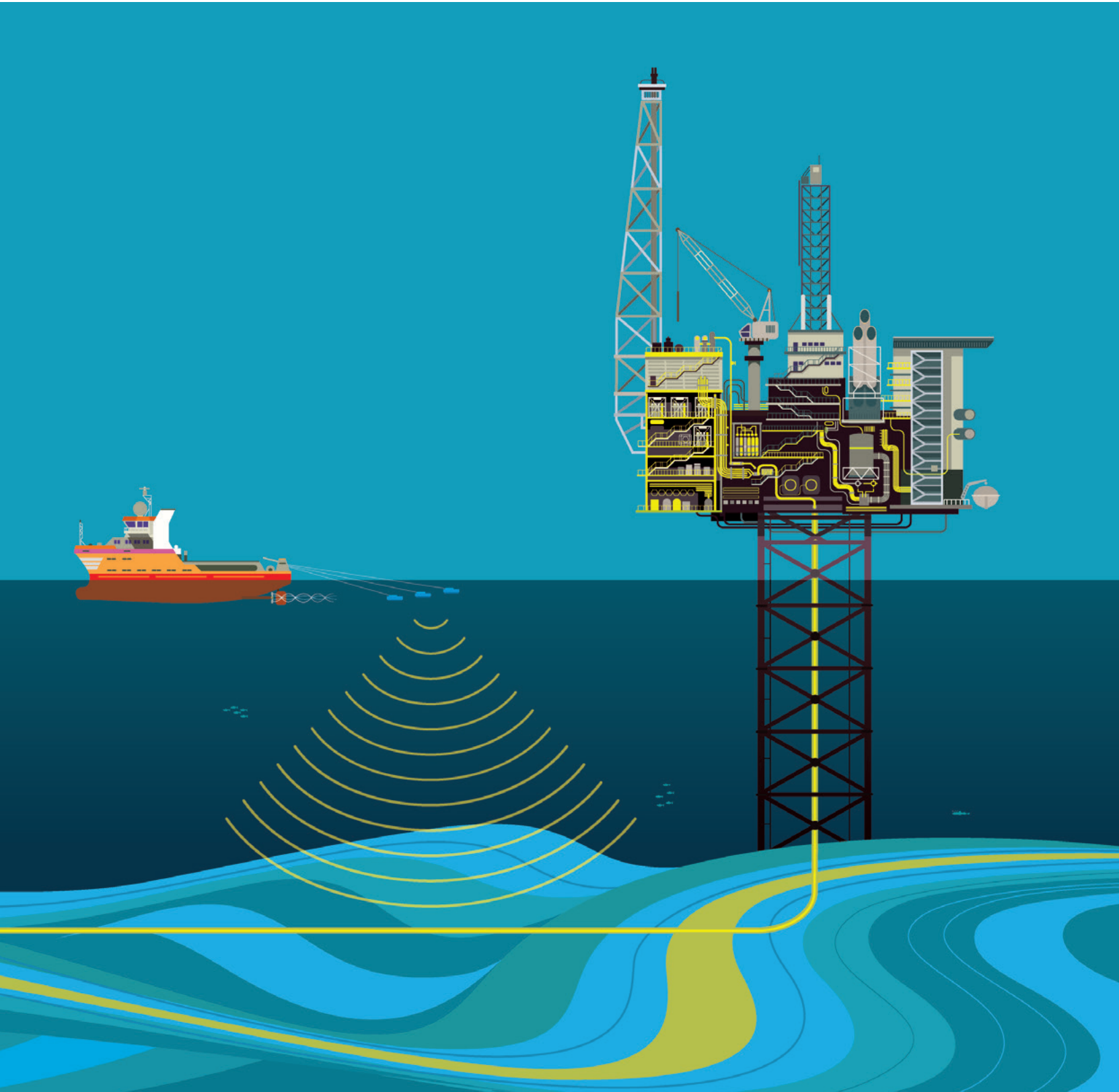


North Sea Region 2015

Looking to the future



01 – Focus

05

Safety

06

Environment

08

02 – Maximising the base

10

Portfolio

12

03 – Investing for the future

20

People

22

Technology

24

Community

26

“We have the right strategy to ensure a competitive and robust future for our North Sea business.”



It is my pleasure to welcome you to this overview of BP’s business in the North Sea. Last year, we celebrated 50 years in the basin with the discovery of new oil in the Vorlich field; a successful start-up of first oil from the Kinnoull reservoir into our Andrew platform; and the safe removal of our west of Shetland Schiehallion floating production, storage and offloading (FPSO) vessel to make way for the new Glen Lyon FPSO later this year. We also continued to deliver a major renewal programme to extend the life of our existing assets.

The coming year will present some real challenges for BP and the wider industry, but also significant opportunities to maximise recovery and extend the life of the North Sea. Through our strategy, which is laid out in this publication, we are working to ensure a competitive and robust future for our business – focusing on safety and risk management; maximising the potential of our assets; and continuing to invest at record levels.

Over the course of 2015, we’ll welcome the arrival of the new Deepsea Aberdeen rig, contracted to drill on our west of Shetland assets for the next seven years. We’ll also take delivery of the first of our new Clair Ridge platform topside modules. And we’ll continue to explore around our key hubs.

While we are committed to responding and adapting to the current industry challenges, I am optimistic about the future. We have a strong portfolio and our business here will remain a significant part of BP for a long time to come.

I hope you will find this publication informative, and that it clearly demonstrates the potential we still have here in the North Sea.

Trevor Garlick
Regional President, BP North Sea Region

Focus

- 06 Safety
- 08 Environment

Focusing on delivering our strategy and pursuing value over volume, we are working with our partners to build a safe, competitive and robust future business.

Our North Sea strategy is underpinned by a relentless focus on safety and risk management, and on the active management of our portfolio to ensure that we prioritise value over volume. We are proud of the high-value portfolio we have today, but we are clear that our licence to operate it only exists by prioritising

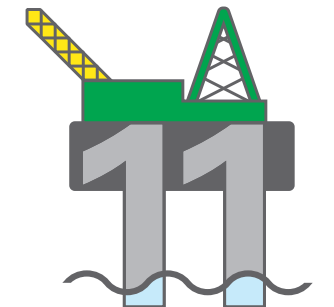
safety every day. This rigorous management of risk helps to not only protect our people and the environments in which we operate, but also the enduring value we create. Operating in technically demanding geographies, we are sensitive to local environments and work hard to avoid, minimise and mitigate environmental impacts.



in the North Sea



pipeline systems



offshore assets

More than
£35 billion

invested in the North Sea to date



terminals

Safety

Safety is at the heart of everything we do; it is our number one priority. It is driven by leadership and applied through BP's Operating Management System – a set of processes, standards and practices that helps us to consistently deliver safe, reliable and compliant operations.

We know that it's not just what we do but how we do it that's important. Safety is one of the five values that guide all BP people, while our Code of Conduct sets out the basic rules for operating safely, responsibly and consistently. We take the welfare of our people seriously and strive to create and maintain safe and healthy working environments. We have put in place processes that support our efforts to continuously improve and to reinforce a culture of 'safety first' behaviour. How we manage hydrocarbons is fundamental to running safe and reliable operations. Rigorous application of our procedures, systems and processes is critical to ensuring the integrity of our operations, preventing process safety incidents, and ensuring no harm to our people.

Our goals

To maintain a safe operating culture and capability

To drive safety improvements through our Operating Management System

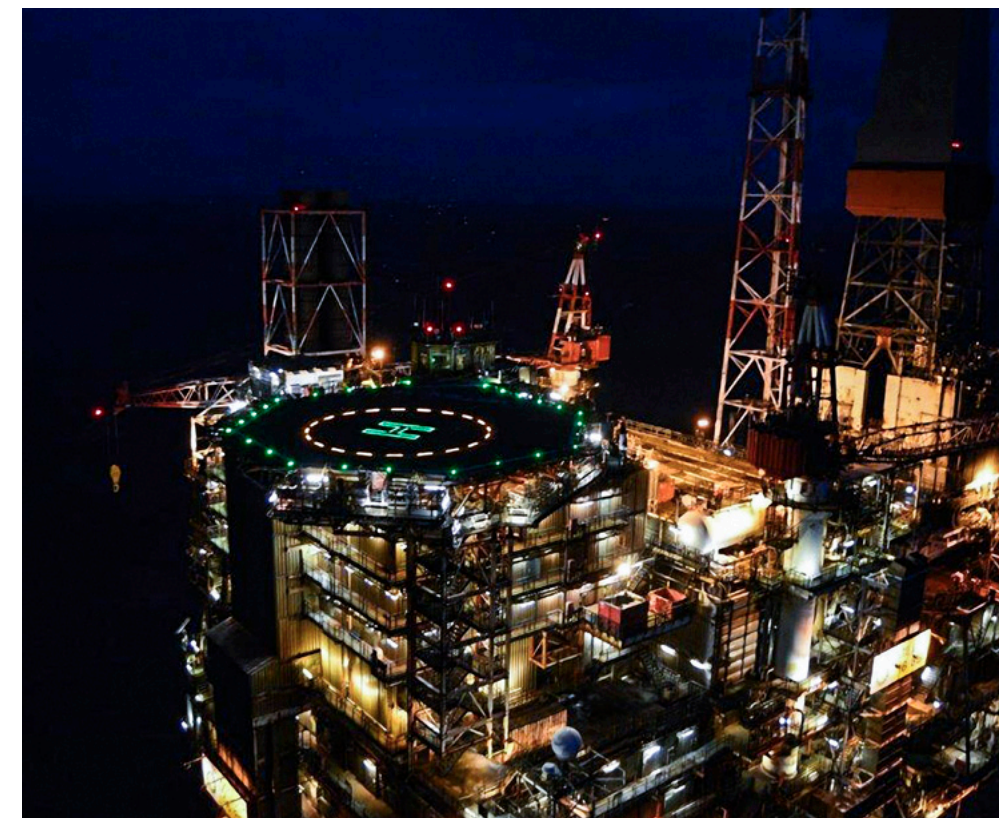


i For more information on BP's commitment to safety, visit www.bp.com/safety

Safety in action

Innovative system lights up Miller helideck

The Miller platform in the Central North Sea became our first asset to be fitted with an innovative new helideck lighting system, as part of the wide-ranging review of the Civil Aviation Authority's (CAA) CAP 437 international standards for offshore helideck lighting areas. The new system comprises powerful LED lights and is designed to enhance visibility and improve safety for pilots approaching in all weathers. CAP 437 requires all offshore platforms to install the new helideck lighting system by March 2018 and we are now working to roll out the new lighting to our other assets in compliance with the guidance and timetable.



► Powerful LED lights designed to enhance visibility and improve safety for pilots approaching in all weathers.

Safe removal of Schiehallion FPSO from the west of Shetland

Our Quad204 project has involved suspending production from the Schiehallion and Loyal oilfields, removing the old Schiehallion FPSO vessel and replacing much of the subsea infrastructure, ready to install a brand new FPSO, the Glen Lyon. The removal of the old FPSO was a significant operation, taking 750,000 man-hours and involving a fleet of seven vessels. It also involved many teams preparing meticulous safety and environmental plans to ensure the safe completion of each piece of work. These plans resulted in zero recordable injuries and the FPSO maintaining its zero total recordable injury frequency (TRIF) record.

► Schiehallion under tow.



Environment

We are committed to minimising our impact on the environment and, while environmental challenges and opportunities differ depending upon the lifecycle stage, our overarching goal of no damage to the environment remains the same.

The North Sea oil and gas sector is subject to strict environmental regulation, with which we strive to comply at all times. We work closely with regulators to constantly review what we do, how we do it, and how we can do it better. Our Operating Management System is designed to drive continuous improvement in our regulatory, compliance and environmental performance. This system is certified to the international environmental management standard ISO 14001; it is subject to regular internal and external audit; and requires recertification every three years. In 2014, we focused on our flaring performance during operations and start-ups and worked with other operators and the regulator to identify and share best practices and explore potential opportunities to improve performance.

Our goal

To cause no damage to the environment



For more information on BP's environmental management, visit www.bp.com/environment



Seal swimming next to BP's Andrew platform

Environment in action

Managing impact on sensitive marine areas

In 2014, following the designation of 30 new marine protected areas (MPAs) by the Scottish Government, BP North Sea environmental specialists carried out a significant piece of work to map onshore and offshore environmental sensitivities in the Region. The team used a geographical information system (GIS) to capture, store, manipulate, analyse, manage, and present environmental data which has since been successfully used by BP to support:

- Environmental assessments during the 28th licensing round.
- Site and seismic surveys.
- Planning for BP's regional environmental monitoring programme.
- Environmental assessment of drilling west of Shetland.
- Oil spill response planning by developing coastal sensitivity maps, which focuses efforts on locations with the highest environmental sensitivities.

The maps produced by the GIS have been shared with industry body Oil & Gas UK, as they represent the



Environmental advisor Melanie Bennett and oil spill advisor Rob Bly worked on the GIS.

"The GIS has proved invaluable in allowing quick visual interpretations of risks associated with our activities in order to mitigate against these risks at the earliest opportunity, further demonstrating our commitment of no damage to the environment."

Melanie Bennett, environmental advisor

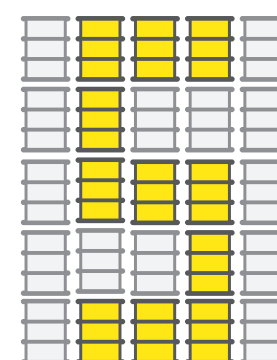
Maximising the base

12 Our portfolio of assets

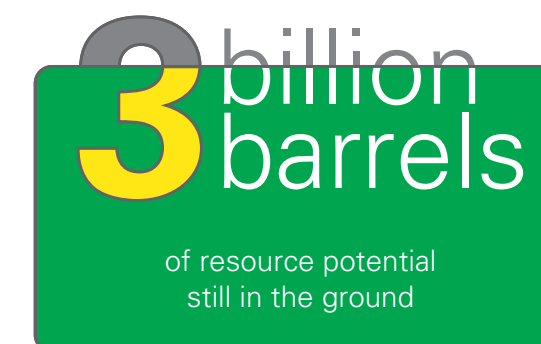
Maximising the performance of our existing base assets is a core strategic priority.

Our strengths in managing giant fields and high-value assets are central to realising the significant opportunities that remain in the North Sea. Consistent with our focus on value over volume, our renewal programme is helping us to produce more reliably and increase our production efficiency. Coupled with our deep technical

expertise in the fields of enhanced oil recovery (EOR) and cutting-edge seismic imaging, we are pushing the boundaries of recovery and maximising the performance of our assets.



3 billion
barrels
produced to date



Drilling **7** wells
in 2015

MORE THAN
20 
producing fields in operation

Our portfolio

In recent years, we have refocused our portfolio; selling interests in assets that were no longer consistent with our strategy and investing in those that are. Our portfolio today is smaller but stronger, with less operating complexity, reduced risk, and better potential to increase and sustain returns.



Andrew

The end of 2014 marked a major milestone in the history of Andrew with first oil from Kinnoull, a subsea tieback located 25 kilometers to the north of the Andrew platform. This project is an excellent example of how we can extend the life of our existing assets and generate incremental value. Extensive new subsea infrastructure, a new 750-tonne process module, and structural strengthening of Andrew have extended the platform's ability to produce for at least another decade.

Quick fact

50,000 barrels per day

Estimated peak forecast production from Andrew/Kinnoull

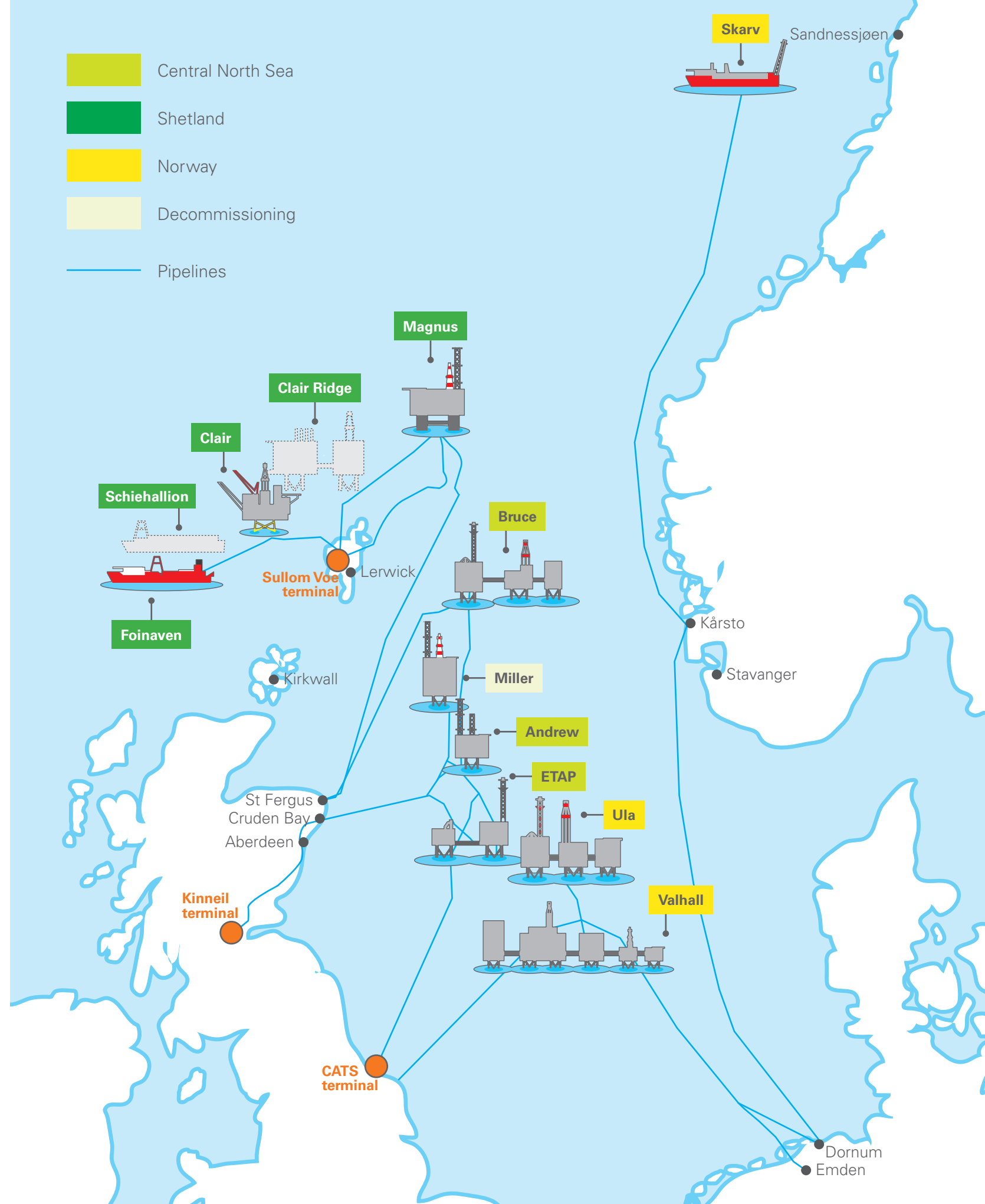


Bruce

Bruce was discovered in 1974 and still provides an important source of gas for the UK. Production commenced in the 1990s from two platforms, with a further platform added later. The high-pressure, high-temperature Rhum gas field, which is tied back to Bruce, was brought into production in 2005. Production from Rhum was restarted in 2014 following a period of suspension to comply with European Union sanctions against Iran. The restart will allow Bruce to continue producing beyond 2020.

Quick fact

Rhum field accounts for up to 5% of UK gas production



Our portfolio continued



CATS

The Central Area Transmission System (CATS) pipeline and terminal have significant parts to play in the transportation and processing of Central North Sea gas for BP and other operators in the area. CATS can transport up to 1.2 billion cubic feet of natural gas per day, which is equivalent to approximately 8% of the UK's demand. It has more than 20 customers, and transports gas from BP's ETAP and Andrew facilities. The pipeline runs 404 kilometers from the Everest field to the terminal located in Teesside.

Quick fact

Up to 8% of the UK's gas demand is transported through CATS



FPS

The Forties Pipeline System (FPS) is an integrated oil and associated gas transportation and processing system, which has played a major role in the development of the Central North Sea over nearly 40 years. Continued investment in technology and reliability, together with responsible management, has enabled FPS to remain the single most important piece of oil and gas infrastructure in the UK, bringing a significant proportion of the UK's oil production to the mainland. An enhanced gas separation project at the Kinneil terminal, completed in 2014, provides further capability and flexibility to meet the needs of current and future FPS customers.

Quick fact

80 + fields served by FPS

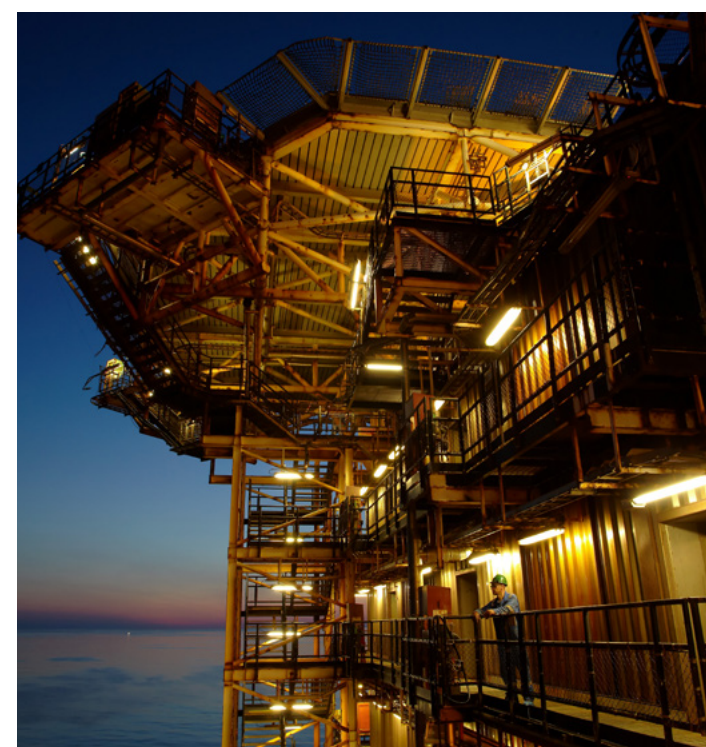


ETAP

The Eastern Trough Area Project (ETAP) ranks as one of the largest and most commercially complex North Sea oil and gas developments of the past 20 years. A planned major life extension project as part of the overall field development strategy aims to breathe new life into this vital resource. We see significant potential and remaining field life in ETAP and, through our significant investment, we expect to still be producing for decades to come.

Quick fact

Nine fields in ETAP hub (six operated by BP)



Miller (non-producing)

The Miller field was operational for 15 years, during which time it produced some 345 million barrels of oil. The field started up in June 1992 and, during the plateau years to 1997, output averaged at up to 150,000 barrels of oil and 225 million cubic feet of gas per day. Production ceased in July 2007. BP is now progressing a programme, which received UK Government approval in December 2013, to decommission the Miller field and platform.

Quick fact

345 million barrels of oil produced in 15 years of operation

Our portfolio continued



Clair

Clair, the first fixed platform in the west of Shetland, started producing in 2005. With an estimated eight billion barrels of oil in place, it is the largest oilfield on the UK Continental Shelf. The field was discovered in 1977, but it was only with significant advances in technology and innovative engineering that the first phase of development was made possible. Clair Ridge, the second phase of development, involves the construction and installation of two new bridge-linked platforms, the jackets of which are in place. The topside modules for Clair Ridge are expected to arrive this year. We are continuing our appraisal drilling programme to help define a possible third phase of development of the Clair field.

Quick fact

Estimated **eight billion** barrels of oil in place

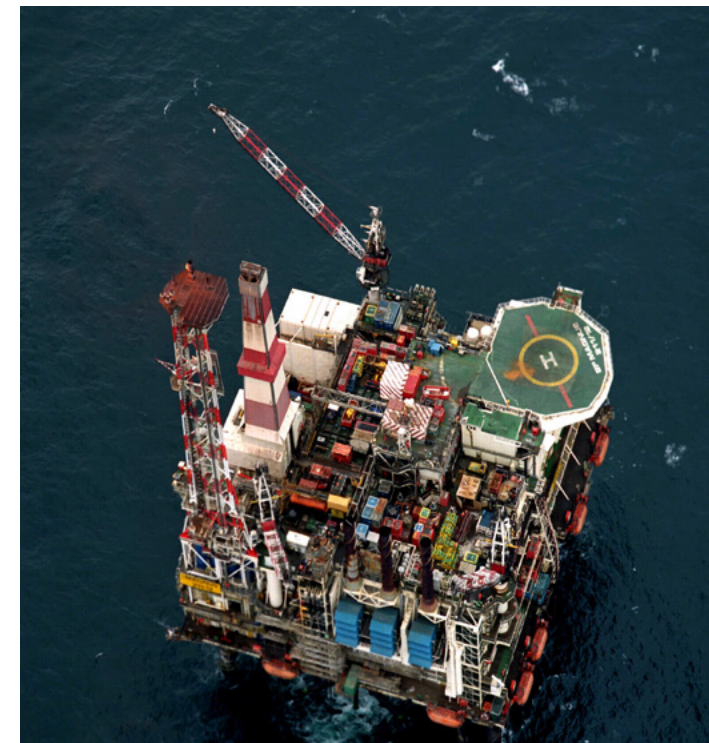


Foinaven

Foinaven was the first deepwater oilfield to be developed in the UK and continues to be among BP North Sea's top-producing fields. The pioneering fast-track development was based on a network of subsea wells linked to an FPSO vessel, the Petrojarl Foinaven. A significant investment programme to renew and replace some of the subsea pipeline system was completed in 2012. BP is reviewing the potential for accessing additional hydrocarbons in the area, to extend the economic life of the hub and to ensure that Foinaven continues to produce safely and reliably for at least another decade.

Quick fact

First deepwater development on the UKCS and the **first** west of Shetland



Magnus

Magnus is BP's oldest platform in the UK North Sea and, despite its age, remains a key asset within our portfolio. The field has achieved strong oil recovery through the long-term application of the water-alternating gas (WAG) enhanced oil recovery (EOR) schemes. Magnus is another of BP's facilities to benefit from our renewals programme, designed to extend the life of our mature assets, while improving reliability and creating capacity for production-related activities. The investment will help enable Magnus to deliver its reservoir potential into the future.

Quick fact

UK's most northerly field

Located 160 kilometres north-east of Shetland



Schiehallion

A new state-of-the-art FPSO vessel, the Glen Lyon was commissioned as part of the £3 billion Quad204 project; designed to maximise production from the Schiehallion and Loyal fields, located 175 kilometers west of Shetland. The Glen Lyon will replace the Schiehallion FPSO, which has moved off station. Glen Lyon will have a storage capacity of 900,000 barrels of oil and is expected to process 130,000 barrels of oil and 220 million cubic feet of gas each day. Due to come onstream at the end of 2016, the redevelopment will extend production from the hub beyond 2035.

Quick fact

900,000 barrels

of oil storage capacity on board Glen Lyon

Our portfolio continued



SVT

Sullom Voe terminal (SVT) is one of the largest oil and gas terminals in Europe. BP and its partners have continually invested in the long-term capability and integrity of the terminal. This investment ensures that the terminal can continue to handle production from mature and emerging fields for many years to come. Built to receive oil and gas from northern North Sea fields to the east of Shetland, it now additionally serves the newer developments on the Atlantic margins west of Shetland. A new facility to treat the higher volumes of gas expected from west of Shetland is currently being planned.

Quick fact

One of the **largest oil and gas terminals in Europe**



Ula

The Ula field has been in production since October 1986 and is expected to produce into the 2020s. Linking the Tambar, Blane and Oselvar fields to the Ula platform has given access to gas to inject into the Ula reservoir. This has enabled increased oil recovery and extended the life of the field. We are continuing to look for additional gas and for ways to optimise the asset's water-alternating gas reservoir injection scheme.

Quick fact

Ula sees **significant recovery rates** through its water-alternating gas injection system



Skarv

The Skarv field was brought onstream in 2012. Skarv is a very important new hub for BP, contributing significantly to regional production growth and representing an important new source of gas to Europe. The development includes a new highly-advanced FPSO vessel, purpose-built for harsh waters, five subsea templates, and a gas export pipeline.

Quick fact

Expected **25 years** of field production life



Valhall

Valhall has been producing for more than 30 years and, with the switch-over to the new facilities completed in January 2013, field life has been extended for a further 40 years. The redevelopment of Valhall includes a new production, utilities and accommodation platform; a pioneering power-from-shore system; and an integrated operating environment linking onshore and offshore personnel. This huge project has been one of BP's most complex redevelopments, but is just the latest in a series of investments in, and upgrades to, this giant field. Valhall will form the cornerstone of BP's production base in Norway for years to come.

Quick fact

Production started in **1982** and is expected to continue until **2050**

Investing for the future

- 22 People
- 24 Technology
- 26 Community

Developing long-term opportunities is a vital part of realising the North Sea's potential.

Developing opportunities beyond the existing base is vital for the continued energy supply of the UK and Norway. With an ongoing commitment to major projects, targeted exploration and appraisal programmes, and new licenses around our core hubs, we are continuing to invest at record levels in our North Sea business

to maximise production and access new reserves. In addition to new field developments and redevelopments, we are conducting major renewal programmes on several existing assets. The people we employ, the technology we use, and the communities in which we serve are central to our continued success in the Region.

1200 km²

of seismic data acquired in 2014

1500

suppliers

More than
3000

people (BP and agency)

£3
billion

of new operating and capital investment in 2015

People

BP is a leading employer in a vital sector and a place where the brightest minds come together to find new ways of solving complex challenges that make a difference to the UK energy industry and economy.

Our performance as a company depends on maintaining and developing an engaged, skilled workforce and our culture is based on respect for one another. We value the strengths, abilities and talents that different people bring to our organisation, and we reward our people on merit. The foundation for this is a set of shared values that guides us in our everyday work. BP values safety, respect, excellence, courage and a one team approach. We believe this enables us to create a working environment where everyone can make a difference and give their best. We hold ourselves to the highest ethical standards and adhere to our Code of Conduct, which outlines our expectations for everyone who works at BP.

Our goals

To embrace diversity at all levels of the organisation

To be the employer of choice for the best and brightest talent in the industry

 For more information on BP's values, visit www.bp.com/values



◀ We value the strengths, abilities and talents that different people bring to our organisation.

"I have been lucky in BP to find and develop my own specialist niche as an oil explorer, working at the forefront of our major discoveries in the west of Shetland. I am continually grateful for the breadth of experience BP has allowed me, both in frontier exploration and mature production, and even after 25 years, I can safely say I retain that early enthusiasm for finding the 'next big one'."

Ronnie Parr, senior geophysicist



"Working for BP in the North Sea has provided me with a firm foundation of technical understanding and has taught me a strong work ethic. Working in this environment hasn't been easy; it has certainly presented many challenges, however, I have been extremely lucky. The mentoring and support I have received has been phenomenal and we are extremely fortunate to have such high-calibre technicians in our basin. The potential for learning and development is vast and I see my future in the North Sea as being bright."

Matthew Whittaker, mechanical technician, ETAP

▲ BP values safety, respect, excellence, courage and a one team approach.

"As an engineer in my first few years in the oil and gas industry, I am finding BP a great place to work. I am surrounded by a wealth of knowledge and expertise in the subsea team, which is of great value to developing in my role. The graduate scheme has provided many fantastic opportunities for me to develop my skills, and gaining site and field experience so early in my career has been fundamental to enhancing my technical knowledge."

Janet Herd, Challenge discipline engineer

Technology

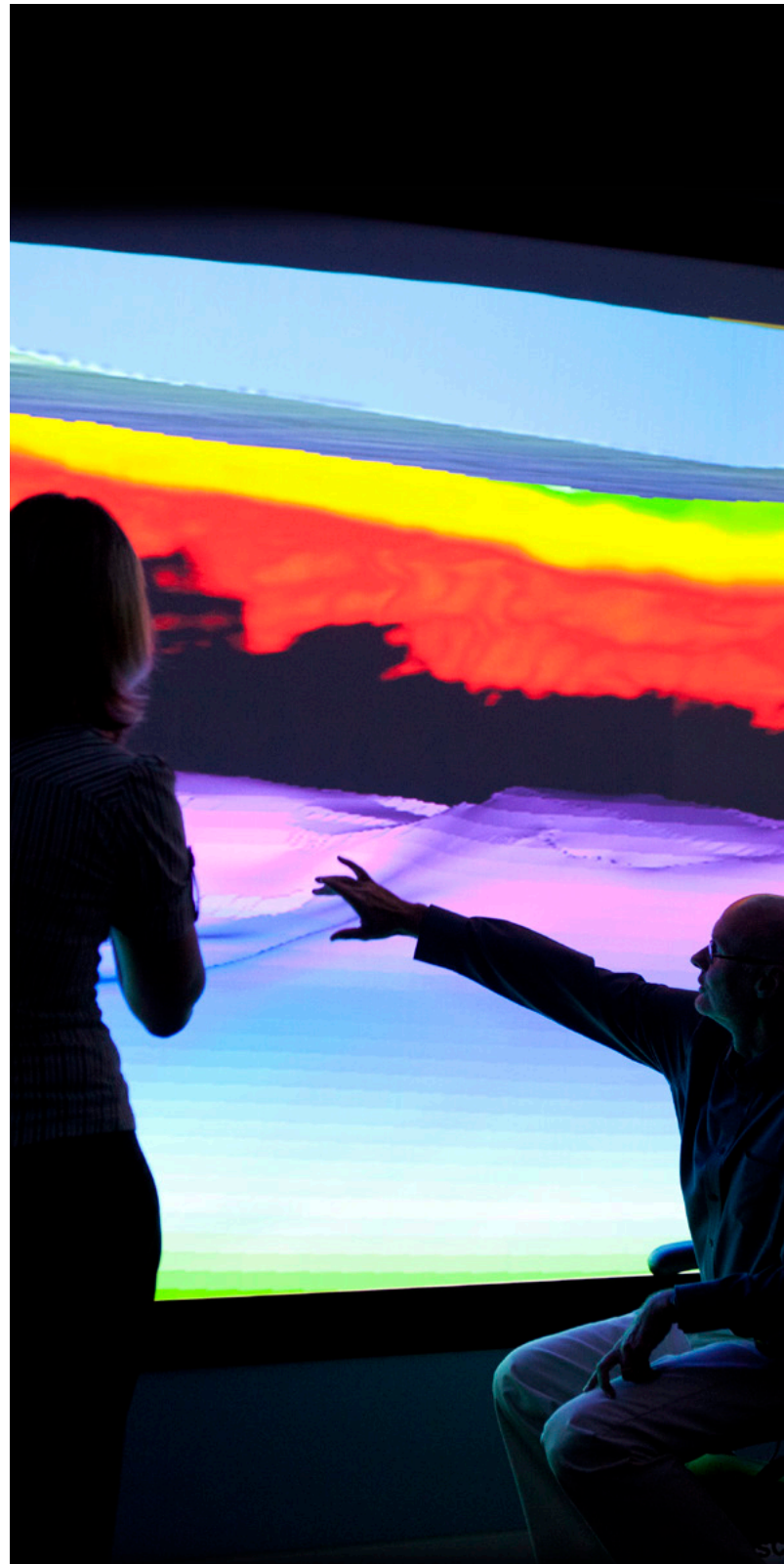
Technology underpins everything we do, from operating safely to discovering and recovering more resources. BP is applying new and existing technologies across all its North Sea operating assets and continuing to progress the implementation of some pioneering techniques.

Technology has allowed us to safely access reservoirs that were out of reach 30 years ago and recover more from existing fields. It means safer, more reliable and more efficient operations, now and in the future. Over the past three years, our seismic team has been at the forefront of using new seismic acquisition techniques, such as ocean-bottom cabling (OBC) and wide azimuth towed streamers (WATS). These continue to enhance BP's ability to image and identify new opportunities within existing reservoirs and open up the possibilities to find new fields. We are also leading the way in the latest enhanced oil recovery (EOR) techniques to significantly extend the field life of our assets, including the first offshore EOR scheme using reduced salinity water injection (LoSal®). BP, as the industry lead for the PILOT EOR workgroup, will continue to help to develop better industry engagement and cooperation in driving EOR activity to ensure the long-term future of the UK's energy supply and maximise recovery from the basin.

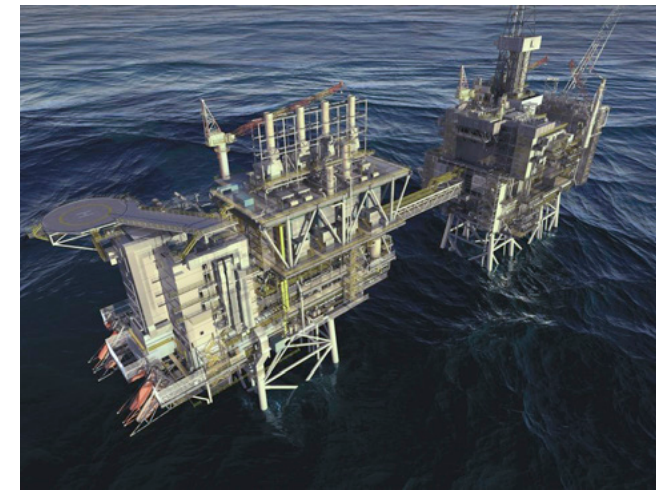
Our goal

To improve recovery factors and increase the life of our fields

 For more information about BP's technology programme, visit www.bp.com/technology



Technology in action



LoSal® EOR on Clair Ridge

Our Clair Ridge development will be the first full-field offshore enhanced oil recovery (EOR) scheme using reduced salinity water injection (LoSal®). LoSal EOR was developed by BP's enhanced recovery technology team, known as Pushing Reservoir Limits, following a decade of laboratory tests. These tests were conducted at BP's UK research centre at Sunbury-on-Thames using sandstone samples from across BP's global operations. The low-salinity water interacts with the clay in the reservoir to release oil that is stuck to the clay. The use of the LoSal system in the Clair Ridge development has the potential to unlock an additional 40 million barrels of oil, compared to using conventional seawater for water injection.



◀ Artist's impression of the Clair Ridge platform.

▲ Reduced salinity water injection (LoSal®).

Building higher-quality images

We are utilising a seismic technique, Independent Simultaneous Sources (ISS®), to develop better images of our reservoirs. ISS uses multiple sources operating independently to generate higher-quality images. Originally developed for land surveys, it was successfully trialled with an ocean-bottom cable (OBC) survey over ETAP's Machar field. This technique provides us with a better understanding of our reservoirs, while also reducing acquisition time, HSE risk, and cost.

Fields of the future today

The North Sea Region is one of the first areas in the world to fully embrace the Field of the Future concept, which harnesses opportunities created by the latest digital techniques to deliver significant benefits in operating efficiency and recovery. We use Advanced Collaborative Environments – monitoring centres based onshore – to see relevant information from our platforms in real time and talk to operators offshore, no matter what the conditions. The first of the new-generation digital oilfields, which integrate Field of the Future technologies into their design from the very beginning, are at Skarv and Valhall here in the North Sea.

Community

We passionately believe in supporting activities that strengthen the skills and abilities of people in the communities where we do business.

We are committed to going beyond our core business responsibilities to work in partnership with communities, local authorities, business organisations and voluntary groups to bring broader cultural, social and economic benefits. Our programme focuses on participating in and contributing to communities through education partnerships; making arts and culture accessible to all; and helping to enhance the quality of life in the locations in which we operate. Supporting local festivals and arts institutions, and bringing world-class arts events to the community mean BP is adding to the Region's rich cultural diversity.

And it's not just about financial support. Every year, hundreds of BP employees and contractors volunteer their time and expertise to help make our communities a better place to live, now and in the future. The BP Employee Matching Fund encourages active fundraising and volunteering in the community and enables staff to support organisations and charities of their choice. Each BP employee can claim up to \$5,000 (approximately £3,200 and 38,000 NOK) per year to support their fundraising and volunteering activities.

Our goal

To bring cultural, social and economic benefits to the communities we serve



For more information on BP's communities investment programme, visit www.bp.com/society



Community in action

Building community capacity

BP has strong links with the voluntary sector, supporting a range of charities providing vital services. Many employees volunteer their time and skills to help make a positive difference. Last year, 15 volunteers from our ETAP and Miller teams transformed the play garden facilities at Aberdeen's Linn Moor Residential School, which provides educational places for young people aged five to 18 who have support needs. Two of Cornerstone Community Care's north-east care homes for people with special needs have also benefited from the support of BP employees, when volunteers completed a range of building and landscaping projects to improve their facilities.

► Crowds gather in Aberdeen's Duthie Park for the BP Big Screens.



Connecting through culture

Since 2005, the BP Big Screens have given Aberdeen audiences the opportunity to enjoy free performances of world-class opera and ballet from the Royal Opera House in London. Last year, more than 5,000 members of the local community, BP employees and their families enjoyed a live screening of *La Boheme* in Aberdeen's Duthie Park. This year will mark our 26th year sponsoring the BP Portrait Award organised by the National Portrait Gallery – the most prestigious portrait painting competition in the world – and our 12th year supporting the Robert Gordon University Gray's School of Art Degree Show, an annual highlight in the local arts calendar that showcases the work of graduating students.

◀ BP Portrait Award 2014 winner: Thomas Ganter with his *Man with a Plaid Blanket* portrait.

Developing capability

BP's thriving Schools Link programme has been running for more than 40 years. It is a comprehensive and practical programme aimed at inspiring young people to develop their skills in science, technology, engineering and maths (STEM), as well as giving them an understanding of business, the oil and gas industry, and how to work as a team. Feeding into every stage of education, BP North Sea is linked with more than 70 schools in Scotland and Norway. Every year, more than 8,000 pupils take part in workshops specialising in the STEM subjects.

► 2014 STEM in the Pipeline winners Meldrum Academy, Aberdeenshire.



Contact Us

Communications and External Affairs
BP Exploration Operating Company Ltd
1-4 Wellheads Avenue, Dyce
Aberdeen, AB21 7PB, UK
+44 (0)1224 832 000
www.bp.com/northsea

Useful websites

Department of Energy & Climate Change www.decc.gov.uk
Petroleum Safety Authority Norway www.ptil.no
Environment Agency www.environment-agency.gov.uk
Scottish Environment Protection Agency www.sepa.org.uk
Oil & Gas UK www.oilandgasuk.co.uk
Norwegian Oil and Gas Association www.norskoljeoggass.no

