



U.K. economic impact report

human energy®



The Alba Northern Platform, one of Chevron's operated assets in the Central North Sea.



about this report

The research was independently administered by Aberdeen & Grampian Chamber of Commerce (AGCC) in collaboration with the Fraser of Allander Institute (FAI).

AGCC is Northeast Scotland's leading private sector, member-focused, business organisation. The Chamber represents more than 1,300 businesses with around 130,000 employees in the private sector covering all industry sectors. They provide an independent research service to its members and have worked with FAI who has provided the economic analysis in this report.

FAI provides high quality economic analysis to clients across the U.K. and is based within Strathclyde University.



On the cover: The Alba Floating Storage Unit, part of the Chevron operated Alba Field in the Central North Sea.

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As used in this report, the terms "Chevron" and "the company" may, depending on context, refer to Chevron North Sea Limited, Chevron Energy Limited or one or more of Chevron Corporation's other subsidiaries which has spending in the U.K. The terms "Chevron" and "the company" are used for convenience only and do not represent a precise or complete description of the activities of any of the separate entities, each of which manages its own affairs.

foreword



Greta Lydecker
Managing Director
Chevron Upstream Europe

Welcome to the Chevron U.K. economic impact report. The report highlights the role Chevron plays in creating prosperity, adding value to the national economy and the positive impact our business has on the communities in which we operate.

In the U.K., Chevron has been developing the energy that people and businesses depend on for more than 50 years. We commissioned the

Aberdeen & Grampian Chamber of Commerce in collaboration with the Fraser of Allander Institute to provide an independent assessment of our overall economic impact in the U.K. The report reinforces Chevron's role in the economic health of the U.K. by measuring our impact through job creation, investments in the U.K. supply chain, research and development (R&D) and the outputs of the goods and services provided by different sectors.

The investments made by our U.K. businesses and international subsidiaries support, both directly and indirectly, a supply chain and skilled jobs that service oil and gas activity at home and abroad, further contributing to the U.K.'s security of energy supply. At Chevron, we are committed to operating safely and reliably, with protection of our workforce and the environment our first priority. As an energy provider we also help to spur economic growth.

This report also looks at other impacts our business has on the U.K., such as our social investments. Through these programmes, we identify social need and build lasting relationships that support and strengthen the communities where we work. We demonstrate our commitment to our local communities in a number of ways, such as supporting education initiatives that advance the U.K.'s science, technology, engineering and mathematics capabilities, and investing in programmes that deliver lasting results for underserved sectors of the community.

Today is a challenging time for the oil and gas sector, particularly those operating in the U.K. North Sea. We are focused on improving our own productivity and working with our supply base collaboratively to maximise the efficiency of our operations and investments.

Through our technical expertise and long-term investments in technology, major capital projects and existing assets, we aim to maximise the resource recovery from the U.K., reliably produce energy the country needs and continue delivering economic and societal benefits.

the chevron way explains who we are, what we do, what we believe and what we plan to accomplish

At the heart of The Chevron Way is our vision ... to be *the* global energy company most admired for its people, partnership and performance.

We make this vision a reality by consistently putting our values into practice. The Chevron Way values distinguish us and guide our actions so that we get results the right way.

Our values are integrity, trust, diversity, ingenuity, partnership, protecting people and the environment, and high performance.

[read more > chevron.com/chevronway](https://chevron.com/chevronway)

executive summary

- Chevron contributed directly to the U.K.'s energy security in 2015 through its net daily production of 40,000 barrels of oil (liquids) and 115 million cubic feet of natural gas.
- Chevron supported a total of £2.71 billion in gross value added (GVA) to the U.K.'s economy in 2015. This economic activity supported the equivalent of 51,727 U.K. jobs.
- Chevron's direct contribution was £867 million GVA to the U.K. economy through its spending on developing, operating and maintaining its offshore operations; U.K. jobs (labour costs); and its spending with companies from across the U.K. supply chain through its international subsidiaries.
- Chevron produced an indirect contribution of £627 million GVA to the U.K. economy through spending on goods and services from across the U.K. supply chain.
- The household spending of people employed by Chevron's businesses in the U.K., and those employed across the wider U.K. supply chain as a result of the company's activities, is estimated to have supported a £1.21 billion GVA contribution (induced impact) to the U.K. economy.
- For every £1 of direct GVA delivered by Chevron a further £2.12 was generated through the multiplier effect in the U.K. economy.
- U.K. companies secured over 79% of Chevron's total operational and capital expenditure on its U.K. offshore activities.
- Chevron invested more than £1 million in support of community organisations and the development of U.K. talent through its support of science, technology, engineering and maths (STEM) subjects, university alliances and technical apprenticeship programmes.

look out for

The following terms used throughout this report:

Direct impacts are the gross value added, jobs and tax that Chevron generates through its business interests in the U.K.

Full time equivalent (FTE) jobs is a measure of employment where one FTE job is equivalent to one full time employee. For example, one full time employee working five days per week or five part-time employees working one day per week.

Gross domestic product (GDP) is the most commonly used aggregate measure of total economic activity in the UK (and elsewhere) and is used to assess the economy's growth rate.

Gross value added (GVA) is the contribution to an economy comprised of the profits, business rates and wages a business or industry creates or pays. UK GDP is the total GVA from all businesses in the UK economy, plus net taxes and subsidies.

Income approach is a way of calculating GDP. This approach measures total incomes earned by households in a nation in a year. Other methods of calculating GDP include production and expenditure.

Indirect impacts are the GVA and jobs that Chevron supported along its UK supply chain through its procurement of inputs of goods and services.

Induced impacts are the GVA and jobs that Chevron supported as a result of payment of wages to staff including those in supply chains, who then spend at retail, leisure and other outlets.

The United Kingdom Continental Shelf (UKCS) is the region of waters surrounding the United Kingdom, in which the country claims mineral rights such as the resources of hydrocarbons in the North Sea.

report highlights

Chevron's impact to the U.K. economy in 2015 through its contribution to the nation's energy future, economic output, investment, jobs and communities.

£2.71B

in gross value added to the
U.K.'s economy



supported the
equivalent of
51,727 U.K. jobs



£1million+

invested in U.K. education, skills
and local communities



directly
employed
1,032 highly
skilled



operated in
U.K. for over
50 years



79%

of U.K. spend
secured by U.K.
based suppliers

chevron's total contribution to the U.K. economy

Chevron demonstrates its commitment to local communities by creating jobs, developing and sourcing from local suppliers, and employing local workforces. This helps build local economies and improve livelihoods.

This report outlines the impact Chevron's business has on the U.K. economy through its total economic contribution to the country. It highlights the role Chevron plays in adding value to the national economy through its direct, indirect and induced spend by assessing the 'ripple or multiplier effect' of the company's investments.

Chevron generates economic impacts at multiple levels across the U.K. economy and in many different ways, from production and jobs, to supporting a world class supply chain and the global procurement of U.K. goods and services. This section of the report considers the nature and scale of these impacts.

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£2.71B

**total contribution
to U.K. economy in 2015**

£867 million
direct impact

+

£627 million
indirect impact

+

£1.21 billion
induced impact



51,727

**FTE U.K. jobs
supported by 2015
economic activity***

* total contribution made up of direct (11,939), indirect (13,129) and induced (26,659) FTE jobs

Chevron's business not only impacts Aberdeen (pictured) but also the wider U.K. economy in many ways including production, job creation and investment in the U.K. supply chain.



how chevron contributes directly to the U.K.'s economy

Chevron business interests in the U.K. create direct economic impacts in terms of production, jobs and taxes and dividends. This section looks at these impacts, through both GDP and GVA contributions to the U.K. economy, in more detail.

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Built in the U.K., the topsides module for the Chevron operated Alder development leaves Newcastle and sets sail for the North Sea.



When assessing the size and growth of the economy, the U.K. government measures the direct contribution of each individual producer, industry or sector in the U.K.

As a major energy producer and supplier to the U.K., Chevron's direct contribution is assessed in terms of the investment it makes in developing, operating and maintaining its offshore operations (assets and infrastructure); the U.K. jobs (labour costs) its activities directly support, and the investments made by its overseas subsidiaries with companies from across the U.K. supply chain.

value added from chevron's U.K. operations

The data for this report is derived from a range of sources, including Chevron's portfolio of North Sea oil and gas fields and the company's offices and facilities around the U.K., including its European upstream headquarters in Aberdeen, Scotland.

Chevron produced a direct contribution of £867 million GVA to the U.K. economy in 2015. This was delivered through an expenditure of £1.77 billion (GDP) from which the economic contribution (GVA) is calculated.

That comprised of £728 million expenditure (£335 million GVA) on developing, operating and maintaining its offshore operations (assets

and infrastructure) that produce crude oil and natural gas from the U.K. Continental Shelf (UKCS). Of this £561m was spent in Scotland and £168m in the rest of the U.K.*

Chevron has working interests in 10 offshore producing fields, comprising three operated fields (Alba, Captain, and Erskine) and seven non-operated fields (Britannia, Brodgar, Callanish, Clair, Elgin/Franklin, Enochdhu and Jade). In 2015, net daily production from these fields averaged 40,000 barrels of liquids and 115 million cubic feet of natural gas.

Through its investments in U.K. suppliers and contractors Chevron helps foster local economic development and builds local supplier capacity. Chevron ensures that it provides full, fair and reasonable opportunity for U.K. industry to supply goods and services, and works hard to ensure that opportunities for local suppliers and contractors are realised. In 2015, approximately 79% of spending on goods and services by Chevron's U.K. operations went to U.K. based suppliers.

£867 million

GVA direct contribution to
U.K. economy

79%

of chevron's UKCS operating and
capital expenditure secured by U.K.
suppliers**



supporting the
equivalent of
11,939 jobs



£335 million from activities
related to developing,
operating or maintaining
oil and gas producing
assets in the U.K.



£488 million from
spending by international
subsidiaries with U.K.
supply chain companies



£45 million
from labour
costs

* figures rounded from £560.7 million and £167.7 million making a total expenditure of £728.4 million

** total made up of Chevron's UKCS capital expenditure (81%) and operational expenditure (77%) secured by U.K. suppliers

direct contribution

spending with U.K. companies by chevron overseas subsidiaries

The oil and gas industry is a U.K. success story that continues to contribute heavily towards the U.K. Government's aim of achieving £1 trillion of U.K. exports by 2020.

Chevron through its international subsidiaries, spent around £951 million (£488 million GVA) with companies from across the U.K. supply chain. This spend accounted for 54% of Chevron's total expenditure in the U.K. and approximately 3.2% of the company's global budget.

£951 million
spent with companies from across
the U.K. supply chain, equivalent to
£488 million GVA

Below: Exporting U.K. Expertise: GE Oil & Gas subsea trees for Chevron's Gorgon Project, one of the world's largest natural gas projects, at Aberdeen harbour waiting to set sail for Australia.



"An industry association is only as effective as its members. IOGP is fortunate to have members like Chevron. The company leads by example, with active involvement from its employees in every aspect of IOGP's work. This includes safety, the environment, health and operational excellence. Chevron has also been instrumental in broadening IOGP's effort to create an understanding of the value that oil and gas brings to our economies and communities."

Gordon Ballard, Executive Director,
International Oil and Gas Producers Association (IOGP).



case study: supporting a strong U.K. export base

Without cranes, offshore installations quickly stop functioning effectively. Sparrows has slowly expanded its business and service offering by working with Chevron and what began as a U.K. relationship now sees 75% of all business related to Chevron's activities undertaken internationally.

By working with Chevron, Sparrows has been able to report scale and timing additionality in their development programme on a larger scale than previously envisaged. The two companies have also agreed to pursue a predictive maintenance approach which has the potential to reduce costs by approximately 30% through the piloting and full-scale commercialisation of innovative work practices.

"Chevron is an early adopter and always open to new ideas. We work with many operations and business managers around the world and believe Chevron is at the forefront of innovation and research and development," said Uwe Kari, Business Manager, Sparrows.

Right: From the U.K. to international markets, 75% of Sparrows business with Chevron now lies overseas.

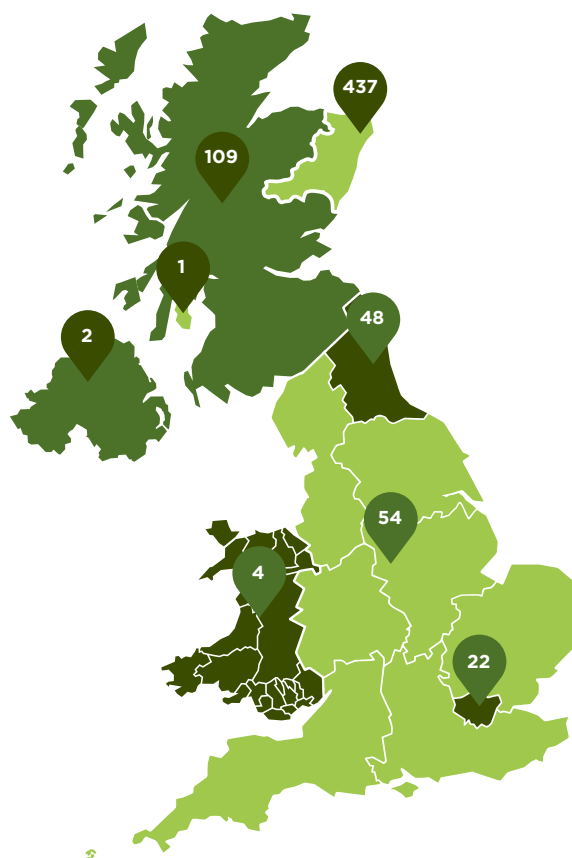


employment

Direct investment in U.K. jobs, (labour costs) from Chevron in 2015 totalled £90 million (£45 million GVA) and the company employed the equivalent of 1,032 people across the U.K. It is estimated that 677 were permanent staff and the remaining 355 were contractors, with the majority being employed in highly skilled jobs across a diverse range of activities to support the company's business operations.

The workforce includes engineers and geoscientists exploring for and producing oil and gas off the coast of North East Scotland to commercial and administrative roles involved with the transporting, trading and marketing of oil and oil products, gas and petrochemicals in London.

Below: Chevron employees at work in the Aberdeen-based Integrated Operation Centre, designed to enhance workforce collaboration, improve efficiency and manage costs.



Chevron's permanent employees around the U.K. shown by resident location.

taxation

In the past 10 years, Chevron's North Sea related activities have generated a tax contribution to the U.K. Exchequer of more than £3.5 billion. In 2015, Chevron's U.K. activities generated a tax contribution of £38.4m in relation to its employees through national insurance and income tax, and £2.1m in business rates paid to local authorities around the U.K.

To stimulate investment in the North Sea the U.K. government's tax legislation means an upstream company can deduct investment (capital expenditure) from taxable profit. In 2015, Chevron received a corporation tax refund of £59 million and a petroleum revenue tax refund of £4 million due to the company being in a tax loss position in 2014. This was due to significantly lower oil prices as well as increased investment in the company's U.K. North Sea portfolio.

Chevron has invested more than £3.5 billion in the past 10 years through its capital expenditure programme in North Sea projects that include Captain Enhanced Oil Recovery (EOR), Rosebank, Britannia Long Term Compression and its non-operated Clair Ridge project. A further example of this investment is Chevron's high pressure high temperature Alder development which is due to commence production in the second half of 2016.

did you know?

Taxation does not form part of the wider multiplier analysis of economic impact. In economic terms 'government' is classed as being outside the economy (exogenous) in multiplier analysis. We therefore treat taxes paid as "leakage" from this system.



"Industry representation requires strong leadership and support from constituent companies. As a long-standing member of Oil & Gas UK, Chevron takes an active interest in all our activities, from the Board room to the specialist work groups, demonstrating its commitment to the UKCS by providing much valued strategic direction and contribution to industry work."

Deirdre Michie, Chief Executive, Oil & Gas UK.



The Captain Floating Production Storage and Offloading vessel, part of the Chevron operated Captain Field in the Central North Sea.

£3.5B+

invested in the U.K. by chevron
through its north sea capital
expenditure programme over
the last 10 years



Overboarding and installation of the Alder subsea isolation valve from the Deep Arctic vessel as Chevron's Alder development moves towards first gas.

case study: investing in the U.K.'s energy future

The Chevron operated high pressure high temperature (HPHT) Alder Field is an example of the company's commitment to the U.K. When it was discovered in 1975 the UK North Sea was in its infancy as an oil and gas province and smaller, more technically challenging fields like Alder were uneconomic as standalone developments.

As technology advanced and commercial conditions improved, supported by the changes to the U.K. fiscal regime to promote the importance of developing small fields in a mature basin, in 2014 Chevron and the U.K. government sanctioned the project's development.

Since then, Chevron has applied its knowledge and technical expertise, experience of complex projects, and leveraged the subsea excellence available across the U.K. supply chain to develop the field – as a single subsea well tied back to the existing Britannia bridge linked platform via a 28 kilometre production pipeline.

Expected to come online in 2016, the project has a planned design capacity of 110 million cubic feet of natural gas and 14,000 barrels

of condensate per day, and is an important milestone in support of Chevron's strategic plan to grow its U.K. production over the long term.

The Alder development highlights the strength and importance of the U.K. supply chain with over 70% of key contracts, equivalent to approximately £440 million investment, being awarded to U.K. based suppliers. For example, detailed engineering, procurement, installation and commissioning of the complete subsea system, including the main subsea manifold, subsea isolation valve manifold, 28 kilometres of pipe-in-pipe flow line, umbilical and tie-in spools, was awarded to Technip.

This work was carried out in Aberdeen, Evanton and Newcastle. In addition, the design, manufacture and supply of two HPHT vertical, subsea monobore trees and wellheads, was awarded to OneSubsea UK Limited at their Leeds facility; and the design, manufacture and supply of the subsea control system was carried out by Aker Solutions Limited at their Aberdeen facility.

how chevron contributes indirectly to the U.K.'s economy

Chevron's business interests in the U.K. also have an indirect economic impact through the spending on goods and services from across the U.K. supply chain. This section considers how Chevron creates a significant multiplier effect within the U.K. economy.

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U.K. contractors providing support for maintenance campaign at Chevron's Captain Field in the U.K. North Sea



indirect contribution

The multiplier impact, sometimes referred to as the ‘ripple effect’, captures Chevron’s impact to the U.K. economy through the investment in goods and services with U.K. suppliers.

Chevron generated an indirect contribution of £627 million GVA to the U.K. economy in 2015. That comprised of Chevron’s spend with U.K. businesses that not only support the company’s U.K. activities, like the provision of helicopter transport services to platforms and vessels in the North Sea, but also Chevron’s international portfolio of projects that leverage the expertise and strength of the wider U.K. supply chain.

helping export U.K. expertise

Over the past 50 years the U.K. supply chain has enabled delivery of an unrivalled range of products and services to both the domestic market and the global oil and gas industry through the export of expertise.

Chevron works with a diverse range of companies from across the U.K. supply chain that provide engineering, design, manufacturing and qualification support for many of the company’s global projects. Recent collaborations include:

- Subsea innovation, detailed design and manufacturing with specialists GE (North East Scotland) for innovative equipment for our liquefied natural gas developments in Australia and deepwater projects in

Indonesia and Angola; and One Subsea UK Limited (Leeds) who have supported our deepwater projects in the Gulf of Mexico and our high pressure, high temperature Alder Field in the U.K.

- Engineering design work for our Captain EOR development in the U.K. and our future growth project at the Tengiz Field in Kazakhstan, through vendors in the South East of England like Flour, Worley Parsons, Genesis and Amec Foster Wheeler.
- Bespoke materials testing and qualification for a diverse range of global projects through U.K. specialists including Exova (Birmingham), Score (Peterhead and Cowdenbeath) and The Welding Institute (Cambridge).

Chevron also works in collaboration with a wide range of U.K. vendors and academic institutions to develop and deploy leading edge geophysical technology. Recent collaborations include:

- Researching the development of new fibre-optic sensor systems with Silixa (Elstree) to improve the effectiveness of using bore-hole seismic acquisition for reservoir imaging and surveillance. To date, field trials have been conducted around the world including Canada, Gulf of Thailand, and onshore US.

£627million

**GVA indirect contribution to
U.K. economy**



**supporting the equivalent of
13,130 FTE jobs**



geographic spread
54% in Scotland
46% to rest of U.K.



£272 million from the
supply chain supporting
UKCS activities



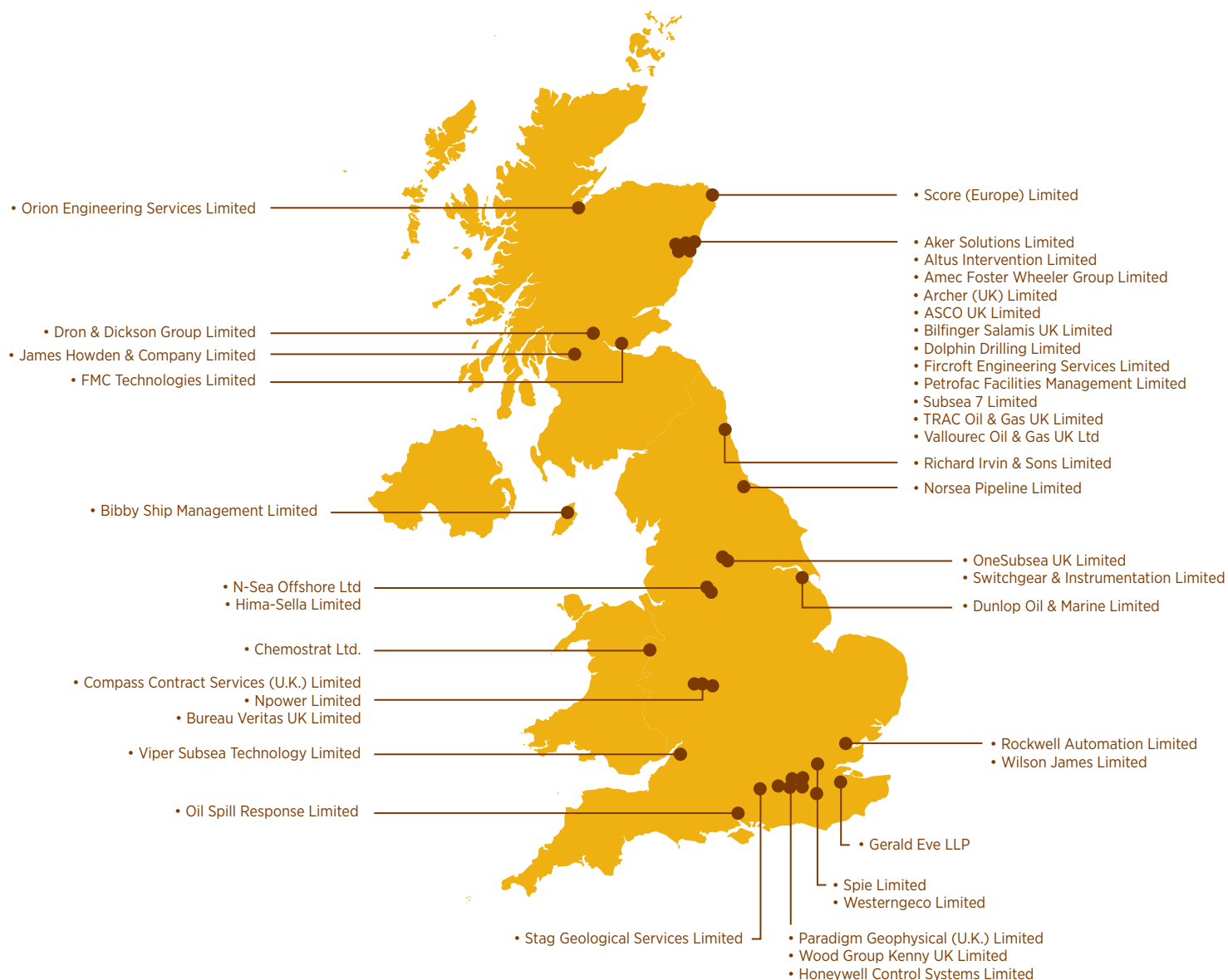
£326 million on supply
chain supporting
international activities



£29 million
from spending on the
U.K. chevron labour
force

indirect contribution

supplier snapshot 40 businesses chevron worked with in 2015



"Chevron is one of the key companies in the U.K. oil and gas industry which is leading the way in Supply Chain Management. They have achieved the 'Excellence Award' for a number of years, which recognises gold standard performance and best practice in commercial activities including speed of payments, transparency of work planning and the use of standard contracts. Chevron is a great example of a company rising to the challenge of becoming more competitive in a low oil price world."

Stephen Marcos Jones, Business Excellence team lead, Oil & Gas UK

indirect contribution



The NHV H175 aircraft transports Chevron's workforce to the company's offshore North Sea assets.

case study: strengthening regional economies

NHV is a new entrant to the offshore helicopter market in Aberdeen. The company first worked with Chevron on a small commission out of Wick and quickly delivered performance which impressed. NHV were invited to tender for all of Chevron's offshore work and successfully secured this in late 2015.

As a direct result of this NHV has created 23 full-time permanent jobs in Aberdeen, 4 further full-time security contractor roles as well as outsourcing their catering to a local company. The company has continued this 'buy local' theme securing arrangements with local hoteliers, tool companies and transport firms.

NHV has delivered brand new helicopters for Chevron with larger windows and new software to improve safety for passengers. To deliver this five year contract NHV is also investing in a new multi-million pound heliport complex located at the north east corner of Aberdeen's Dyce airport. This 9 month programme is being delivered through a local contractor with around 20 full time employees involved in the project.

This is part of a broader strategy NHV has to invest in the local economy.



ESS partners with local producers and farmers.

case study: enabling supply chain spending in the local economy

ESS, part of the Compass Group and a provider of catering and support services to offshore sites, has worked with Chevron for more than a decade in the North Sea. The stability of that long term relationship has enabled ESS to look ahead and innovate with its U.K. supply chain and product offering.

Graham Singer, Food Operations Manager said: "Working with Chevron has given us a platform to radically change our supply chain in the U.K., where we have a strategy to focus on Scottish sourced and grown produce. We have increased the amount of local produce in some of our categories up to 30% and found new markets for speciality and niche producers from around the country.

"We are now able to partner with farmers and producers who can showcase the best that Scottish produce has to offer. We are also investing in the future of our trade through apprentice programs. The result is fewer road miles to deliver produce, fresh local food for offshore workers and guaranteed business for Scottish farmers and food producers with the opportunity to grow their markets."



becoming a chevron supplier

In the U.K., Chevron uses Achilles First Point Assessment (FPAL), the industry's supply chain database, to identify, assist with pre-qualification and assess suppliers for tender opportunities. In support of the Oil & Gas UK Supply Chain Code of Practice, Chevron provides a list of future contracting and supply opportunities through an annual Pilot Forward Workplan submission, which is hosted through FPAL.

Learn more: chevronunitedkingdom.com/suppliers

how chevron's induced impacts contributed to the U.K.'s economy

The service sector is critical to the U.K. economy and accounts for around three quarters of all economic activity. A large part of the service sector is driven by household spending which is known as the 'induced' multiplier effect.

The people employed by Chevron's businesses in the U.K., and those employed across the wider U.K. supply chain as a result of the company's activities, spend a share of their disposable income in their local communities, whether it be at local retailers, leisure outlets or other local businesses.

The economic activity supported by this household expenditure comprises Chevron's induced impacts on the U.K. economy. In 2015, expenditure is estimated to have supported a £1.21 billion GVA contribution to the U.K. economy – which is equivalent to over 26,650 jobs.

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£1.21B

**induced
contribution to U.K.**

£535 million

from the supply chain
supporting UKCS activity

+

£618 million

from the supply chain
supporting international
activities

+

£59 million

from spending on the U.K.
chevron labour force



**supporting the
equivalent of 26,659
FTE jobs**



**geographic spread
41% Scotland
59% rest of U.K.**

In 2015, Chevron's induced impact on the U.K. economy supported a £1.21 billion GVA contribution to the U.K. economy.



investing in U.K. technology and innovation

Chevron invests in technology, innovation and research and development (R&D) in the U.K., helping create a host of growth opportunities for the future. In 2015, Chevron invested millions of pounds in technology and participated in over 70 R&D projects in support of its U.K. North Sea assets.

More than 50 years ago, Chevron pioneered the drilling of the first well in the U.K. North Sea. This feat established the company's legacy in pioneering technology as it broke new ground in offshore operations, proving the capability of drilling year-round in this harsh environment.

According to the U.K. government (Innovation Report 2014) innovation has been, and will continue to be, a key driver of U.K. growth and economic prosperity, accounting for up to 70% of economic growth in the long term. Success in R&D tends to create benefits to society that can be greater than those to the businesses undertaking the initial spend. A key reason for this is the way in which innovations spread to

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Employees at Chevron's Aberdeen-based Global Technology Centre, which invested more than £25 million in the U.K. in 2015, provide a hub of technical excellence that supports a global portfolio of projects.



Technology plays a critical role in meeting the challenges of the energy business. It enables us to maximise reliability and production efficiency from existing assets and develop new oil and gas reserves in deeper water and more complex formations.

at the centre of technology

Aberdeen is the home for one of Chevron's Global Technology Centre's (GTC). Established in 2007, the centre aligns with Chevron's long-term energy growth strategy and improves the company's connection with the European oil and gas technology marketplace.

The GTC, which invested more than £25 million in the U.K. in 2015, focuses on developing technological capability and provides a hub of technical excellence that supports Chevron's global portfolio of projects. As a subsea centre of excellence, the U.K. GTC supports Chevron's deep-water assets worldwide and work carried out in Aberdeen has contributed to Chevron's application of advanced seismic methods such as ocean bottom nodes and time-lapse 4-D imaging for reservoir management.

The centre also develops research partnerships to enable innovation and new technology deployments for a diverse range of Chevron operations and development projects, including Gorgon and Wheatstone in Australia, Tengizchevroil in Kazakhstan, Jack / St Malo in the United States, Frade in Brazil, as well as U.K. assets and future growth projects like its Rosebank project, West of Shetland.

applying innovation to real world challenges

Chevron focuses on innovation by developing alliances with leading U.K. universities, industry research partners and start-up technology ventures to work to enable innovation and support the acceleration of new technology deployments across the energy spectrum. Recent collaborations include a number of Joint Industry Projects (JIP) with the Industry Technology Facilitator (ITF), a U.K.-based not-for-profit organisation focused on the commercialisation of technology developments, and key academic institutions including Bristol, Durham, Imperial College London, Newcastle and Manchester Universities.

In the U.K., Chevron deploys technologies to help find and commercialise new oil and gas fields cost-effectively and help maximise the recovery of resources from its existing fields. Chevron also invests in technologies that enhance safety and increase the efficiency and economics of its operations.



from concept to commercialisation

Seismic imaging: The Full Wave Gamechanger JIP with Imperial College London has resulted in an industry step-change in subsurface seismic imaging with the commercialisation of world-leading academic know-how into industry expertise. Chevron is currently applying this technology to ocean-bottom node seismic surveys acquired globally, including its Captain and Alba Fields in the U.K. North Sea, to improve the imaging of the reservoirs and help maximise economic recovery.

Tight gas: The FRACGAS JIP led by Rockfield Software in Swansea, Wales, working together with the Universities of Leeds and Bristol, has developed leading edge analytical techniques for fracture stimulation of tight gas reservoirs that has provided new insights on how these reservoirs can be optimised for drilling and completion operations and increase production.

Asset integrity: The VSLIM JIP led by Viper Subsea has developed innovative techniques to monitor electrical degradation in subsea control lines that is saving millions of pounds in unplanned downtime and intervention, and helping improve production efficiency.



"Chevron has been part of ITF since its inception some fifteen years ago and is one of our leading investors in collaborative projects within ITF. This has helped the industry to identify business needs, foster innovation and facilitate the development and implementation of new technologies. With today's low oil price environment, ageing infrastructure and complex reservoirs, technology remains a key enabler in meeting business objectives. Without support from companies like Chevron, ITF would not be able to sustain its role of leading technological progress in the industry."

Dr. Patrick O'Brien, Chief Executive,
Industry Technology Facilitator (ITF).

investing in U.K. education, skills and local communities

Chevron builds relationships that support the economic and social fabric of its local communities and in 2015 the company invested more than £1 million in support of community organisations and the development of U.K. talent through science, technology, engineering and maths (STEM) initiatives, university alliances and technical apprenticeship programmes. This section considers the impact of these investments.

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supporting STEM education and developing skills

Chevron's support for education and the development of capability in the U.K. is broad, ranging from strategic alliances with key universities to the development of interactive workshops for primary school children. For example, through its global University Partnerships and Association Relations programme, Chevron has formed relationships with the University of Aberdeen and Heriot-Watt University in Edinburgh to provide scholarships, grants and departmental contributions to help build tomorrow's energy workforce.

As a long-term supporter of The Oil and Gas Technical Apprentice Programme (formerly the U.K. Upstream Oil and Gas Industry Technician Training Scheme), Chevron invests in one of the most successful apprenticeship schemes of its kind. The company works closely with OPITO, the skills organisation for oil and gas, who manage the programme on behalf of the industry's operating companies to develop suitably skilled, trained and motivated technicians.



£1 million+

**invested in U.K. education, skills
and local communities**

"We have had a strategic relationship with Chevron for over 35 years. Through their University Partnerships and Association Relations programme, Chevron has supported Heriot-Watt and helped develop a world-class workforce of the future through the provision of essential teaching materials, internships, scholarships and employment for many of our Engineering students."

Professor Richard Williams, Principal and Vice-Chancellor, Heriot-Watt University.



Human Energy

Chevron's employees support the development of U.K. talent by encouraging interest in science, technology, engineering and maths.



Chevron invests in programmes that teach young people about science, technology, engineering and maths (STEM). This enables students to acquire the skills and knowledge in STEM subjects, helping equip them for potential careers in the energy industry and the wider economy.

For example, through its support of TechFest, Chevron offers students 'Maths Masterclasses' taught by industry professionals and academics. In addition, the company supports the organisation's 'STEM in the Pipeline' and 'Maths in the Pipeline' programmes.

Annually, Chevron also supports the TechFest Festival, a 23 day programme of science and technology events, workshops and shows across Aberdeen and North East Scotland. In 2015, Chevron's work with TechFest reached an audience of over 55,000 people.

Chevron works closely with the Scottish Council for Development and Industry (SCDI) and supports the organisations Young Engineers and Science Clubs. This programme has played a key role in inspiring young people towards STEM related careers. There are currently more than 1,300 clubs in the network, with a membership of more than 26,000 pupils (aged between 10 and 17 years old).

Below: Chevron volunteers visit local schools to engage with the next generation of talent.



55,000+
**people reached through chevron's
work with TechFest to enhance
interest in science, technology,
engineering and maths**



supporting strong communities

Chevron encourages employees to support community organisations and charities through volunteering and charitable giving. In Scotland, Chevron works with Instant Neighbour, a charity that takes a hands-on approach to tackling poverty. Chevron sponsors their Christmas Giving Tree programme, which mobilises Aberdeen's citizens, including Chevron employees, to purchase gifts for disadvantaged children in the community. In 2015, volunteers gave 400 hours of their time to package more than 6,000 gifts.

Chevron also supports the Aberdeen Cyrenians, a charity that provides services for homeless people in the local area. Through volunteering, Chevron's employees help the organisation's 'Street Alternatives' programme, providing support on a weekly basis to cook and serve food for the homeless. The company also runs annual food drives to donate non-perishable food items for distribution through local food banks.



Above: Chevron works with local charity Instant Neighbour to support Aberdeen's most vulnerable citizens.

investing in people

Alongside its investment in the next generation of talent, Chevron focuses heavily on developing the capability and competency of its own employees. Meeting the world's increasing demand for energy creates tremendous challenges – as well as a highly stimulating work environment. Across the U.K., Chevron employs talented people from a diverse range of backgrounds. No matter where an employee is on their career path, we offer continued education and training to help them cultivate their skills and expand their career within a truly global and collaborative workplace.

Chevron training and development programs begin on an employee's first day and continues throughout their career. From our 'New to Chevron Process', designed to help employees develop the confidence and mindset to pursue continuous improvement in their performance and development, to 'Horizons', our five-year development program designed to help recent graduates develop and hone the skills learned in university through challenging assignments in various locations, mentoring and formal classroom instruction to build technical and interpersonal skills. After Horizons, technical employees participate in 'Pathways', which helps them establish development plans, provides technical and non-technical training, and provides further opportunities for career growth.



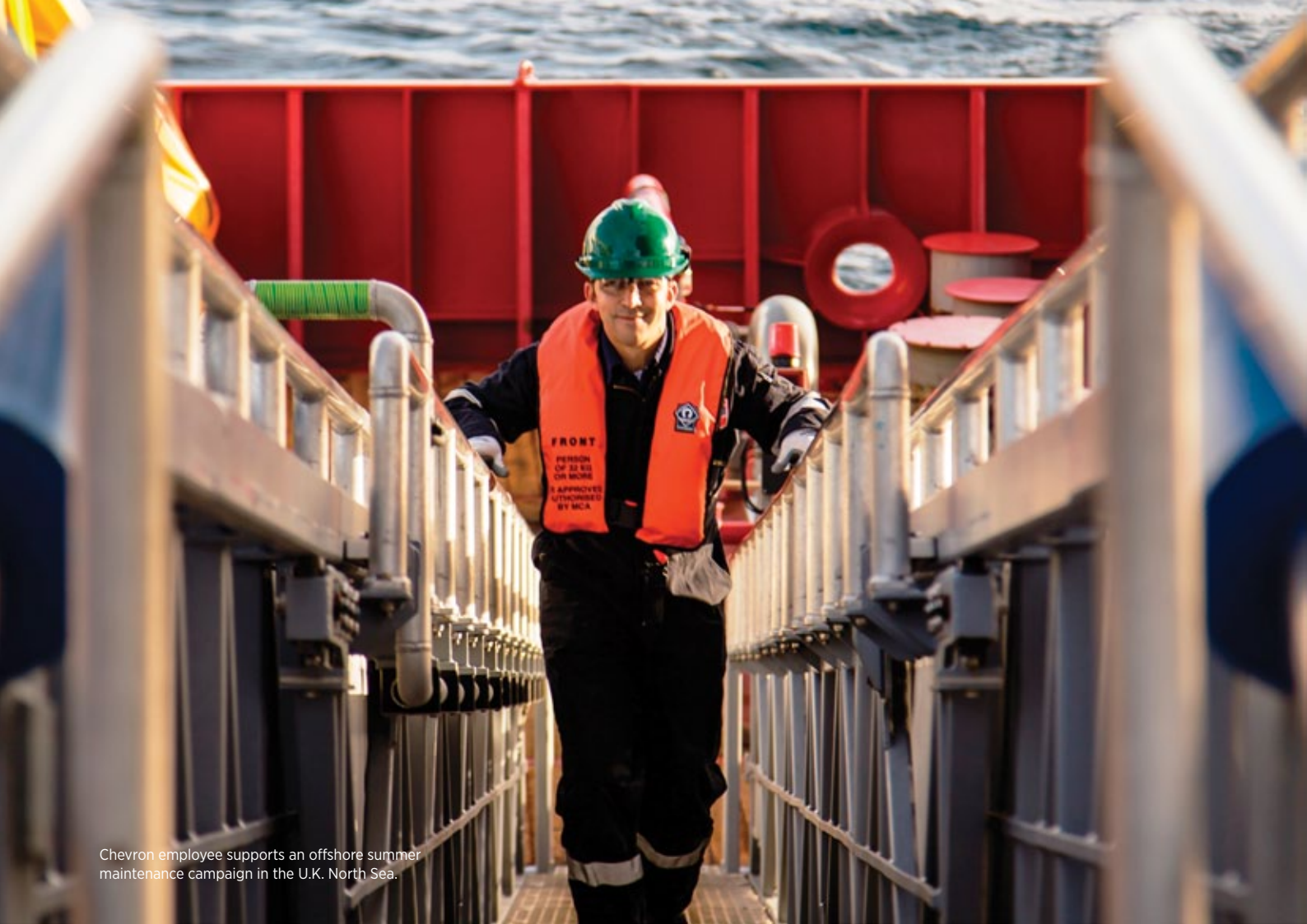
"One of the main objectives of SCDI's Young Engineers & Science Clubs is to spark pupils' interest in STEM, helping them to question the world around them, and ultimately provide the world with the next generation of explorers, scientists and engineers. Chevron's work in collaboration with the SCDI plays a critical role in providing resources to schools across Scotland that will ensure a new generation will continue Scotland's legacy of innovation in science and engineering industries."

Jane Martin, Programme Director,
Scottish Council for Development and Industry (SCDI).



"Chevron is a key business in our community. Their long-term commitment to supporting education, the environment and initiatives that address youth homelessness and unemployment in and around Aberdeen brings tremendous value to the area. As Lord Provost I have been privileged to see how these projects are benefitting our local community."

Lord Provost of Aberdeen, Councillor George Adam.



Chevron employee supports an offshore summer maintenance campaign in the U.K. North Sea.

methodology

The research team were provided with detailed information on the activities of Chevron in the most recent year (2015) for three separate elements, each of which is considered separately in this report.

- Spending by Chevron North Sea Limited supporting UKCS activities (including operating expenditure and capital expenditure)
- Spending by Chevron Energy Limited on remuneration to U.K. workers
- Spending by Chevron's international subsidiaries in the U.K.

Expenditure was modelled using a regionally disaggregated Input-Output (IO) table, i.e. an IO table for Scotland and the rest of the U.K.

The IO approach uses “multipliers” to quantify the multiplier impacts on the whole economy. Three definitions are used in presenting the results of the modelling analysis: “direct” refers to the expenditure disturbance itself, while “indirect” refers to the additional consequence on all sectors of the disturbance increasing demand through the multiplier across all production sectors.

We matched firm level information on expenditure in each of the three elements to industrial sectors in specific regions of the U.K. The impacts of these expenditures were then modelled using the inter-regional IO table. This therefore explicitly acknowledges the trade flows, and consumption patterns, that exist between these identified regions.

contact and further information

Chevron North Sea Limited
Chevron House
Hill of Rubislaw, Aberdeen
AB15 6XL
United Kingdom

T: +44 (0) 1224 334000
W: chevronunitedkingdom.com

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Disclaimer

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Working offshore on the Chevron operated
Captain Wellhead Protector Platform.





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Chevron North Sea Limited

Chevron House, Hill of Rubislaw, Aberdeen, AB15 6XL, United Kingdom
www.chevronunitedkingdom.com