Cairn

# Creating value

## from a balanced business

Cairn Energy PLC Annual Report and Accounts 2017


**Cairn Energy PLC is an independent, UK-based oil and gas exploration and production company.**

Cairn has explored, discovered, developed and produced oil and gas in a variety of locations throughout the world and has extensive experience as operator and partner in all stages of the oil and gas lifecycle. Cairn has been listed on the London Stock Exchange for almost 30 years with its headquarters in Edinburgh and offices in London, Norway, Senegal and Mexico.

Cairn's strategy is to create, add and deliver value for stakeholders from a balanced portfolio of exploration, development and production assets within the oil and gas lifecycle. Cairn's portfolio provides exposure to high impact exploration drilling. The Group's production assets provide the cash flow to sustain exploration and development activity.

**"Cairn is committed to working responsibly as part of our strategy to deliver value for all stakeholders. This means working in a safe, secure, environmentally and socially responsible manner.**

**During 2017, we made good progress against our strategic objectives. We acquired exciting new acreage in Mexico and built on our extensive Norwegian portfolio, we transitioned our world-class discovery in Senegal to development planning and we delivered first production in the UK which will generate cash flow and support future exploration."**

**Ian Tyler**
**Chairman**

discover more at
**cairnenergy.com/ar2017**

## Strategic Report



## Leadership and Governance



## Financial Statements



## Additional Information

# Highlights

## Exploration & Appraisal

Expanding our position along the Atlantic Margin by securing two new licences in Mexico and building an extensive portfolio in Norway.

Successful 3rd phase drilling campaign bringing SNE field in Senegal to development planning.

14 Read more: **Operational Review** on **P14**

## Development

Delivering Kraken & Catcher developments into first production.

Moving Nova (formerly Skarfjell) towards development phase in 2018.

Targeting SNE development approval in 2018.

14 Read more: **Operational Review** on **P14**

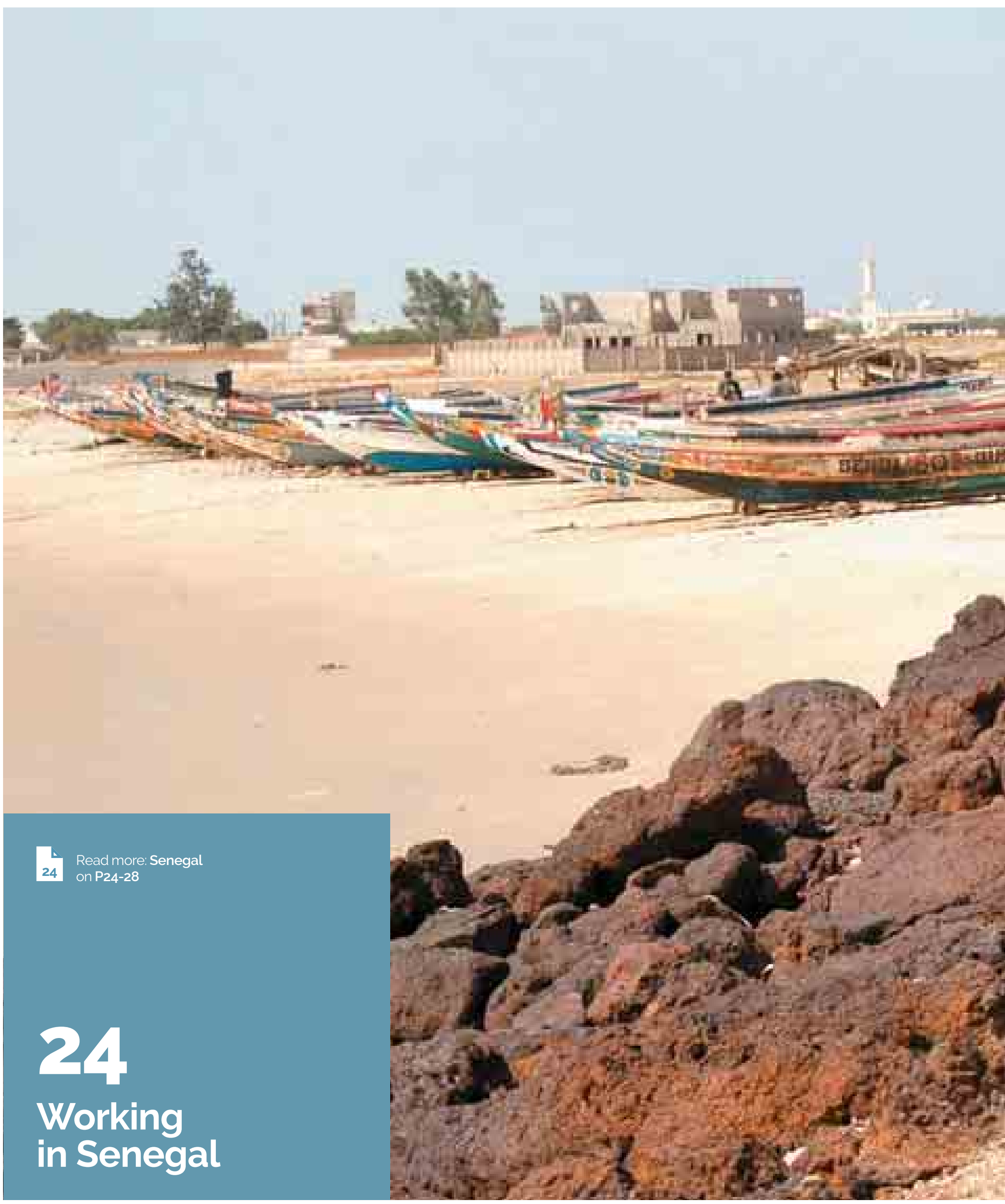
## Production

Kraken & Catcher providing sustainable cashflow for reinvestment.

14 Read more: **Operational Review** on **P14**

## The Year at a Glance

# Delivering value from a balanced and sustainable portfolio



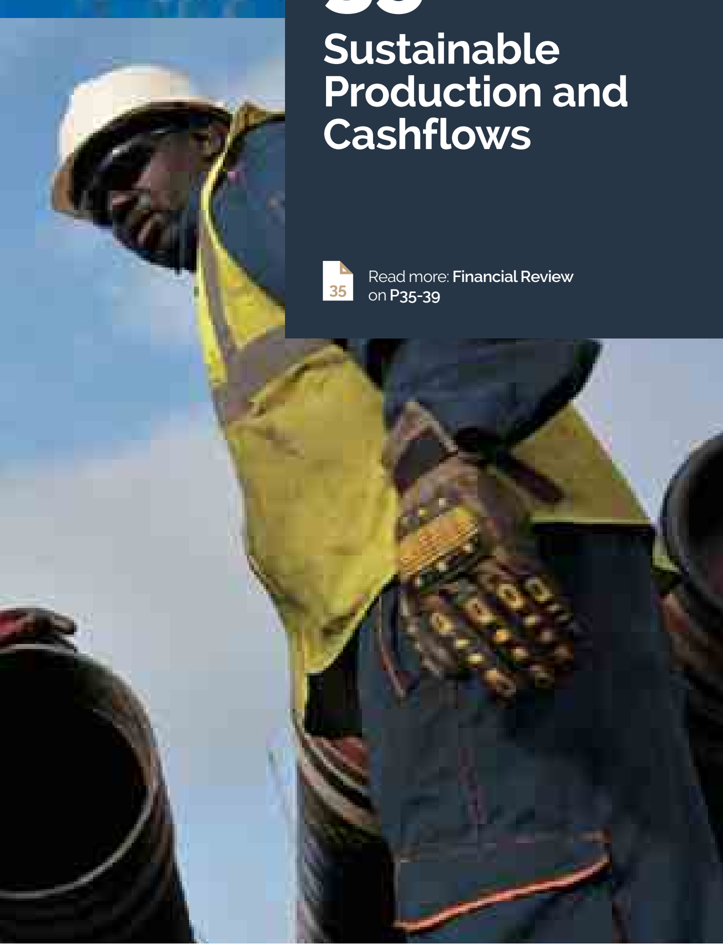
24 Read more: Senegal on P24-28

**24**

**Working in Senegal**

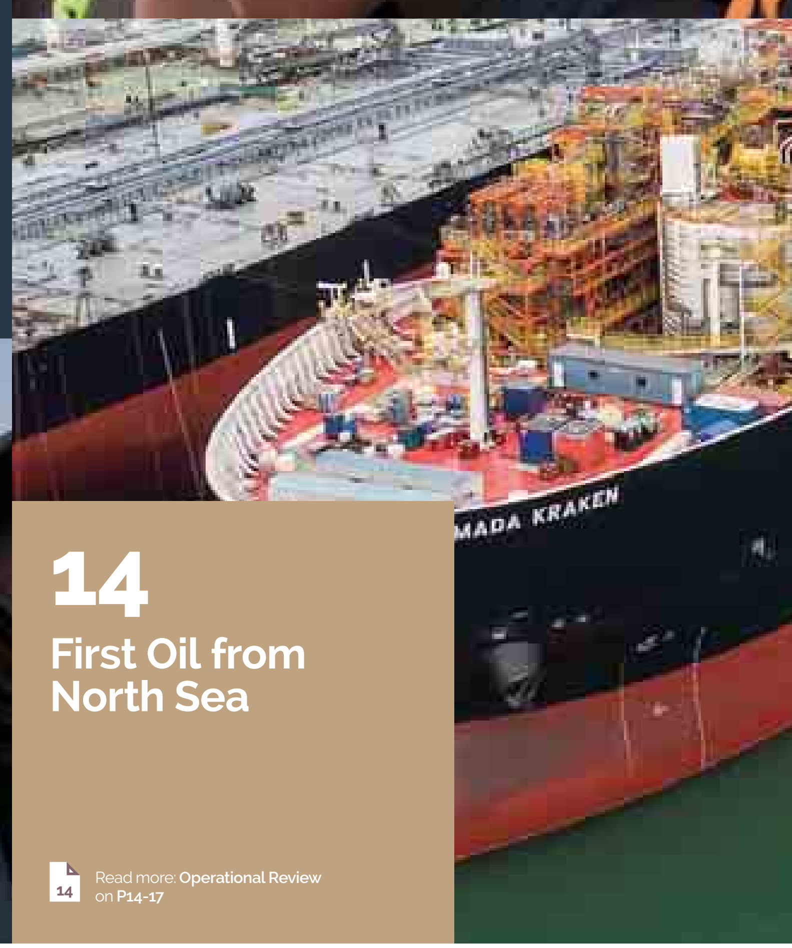
# 48
## Working Responsibly

48 Read more: **Working Responsibly** on P48-75



# 35
## Sustainable Production and Cashflows

35 Read more: **Financial Review** on P35-39




# 14
## First Oil from North Sea

14 Read more: **Operational Review** on P14-17

# Business Model & Strategy
## Working responsibly and managing risk are a key part of our strategy

### Business model

To create, add and realise value for stakeholders through the exploration, development and production of oil and gas within a self-funding business model. Exploration offers material value potential to stakeholders and production provides the cash flow to sustain exploration and development.

### Strategy

To deliver value for stakeholders from a balanced portfolio of exploration, development and production assets.

Exploration activity is principally in frontier and emerging basins where the greatest value potential exists. Cairn is currently focused on generating cash flow from its North Sea assets, developing its Senegal resource base, progressing its North Sea exploration assets and continuing to replenish its exploration portfolio.

### Strategic objectives

30 Read more: Key Performance Indicators on P30-34

Annual Key Performance Indicators (KPIs) identify the Company's strategic objectives and how they can be met, enabling the Company to measure the delivery of its strategy.

### Managing risk

40 Read more: How We Manage Risk on P40-47

Cairn has a robust risk management process in place to identify, monitor and mitigate risk and to identify opportunities. This means first determining risk appetite, and then identifying the key risks.

### Working responsibly

48 Read more: Working Responsibly on P48-75

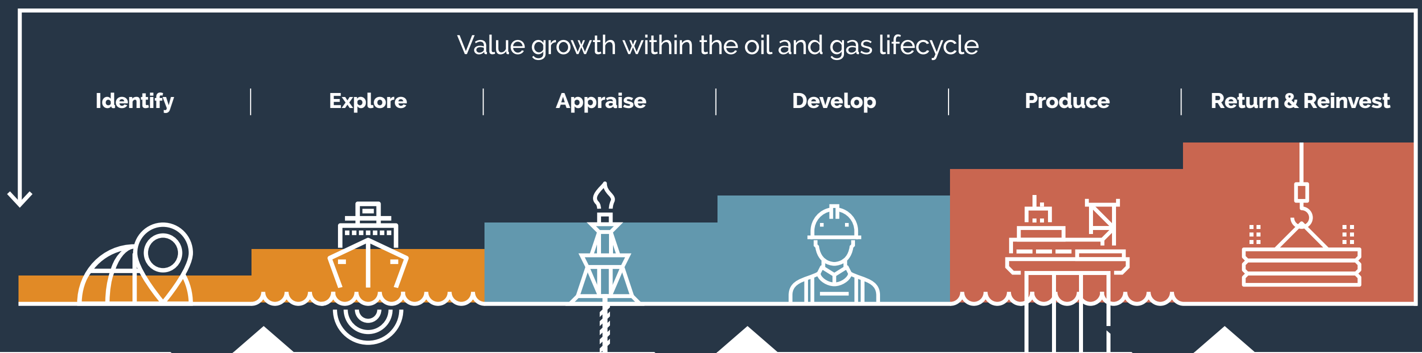
The 'Maintain licence to operate' KPI measures the Company's ability to work responsibly and means delivering value in a safe, secure, environmentally and socially responsible manner.

Working responsibly means identifying and managing issues that are material not only to the Company but also to stakeholders.

**Create Value**
Cairn identifies assets it can add value to through exploration activity including 3D seismic and drilling as part of a focused exploration strategy. In success, exploration activity can create material value.

**Add Value**
In order to add value Cairn looks to progress existing exploration assets through the appraisal and development stages or can acquire new assets at this point in the oil and gas lifecycle.

**Realise Value**
Cairn realises value by progressing development assets through to production and/or realising value through asset sales. Proceeds are reinvested in the business to fund exploration and development activity or returned to shareholders.




**Exploration**
Frontier and emerging basin exploration acreage offshore Senegal, the Republic of Ireland, Norway and Mexico; mature exploration acreage in the UK and Norway.

Read more: CEO's Review on P12-17

**Development**
SNE field in Senegal moving towards development, aim to have government approvals in place by end 2018. Final investment decision on Nova development targeted for H1 2018.

Read more: CEO's Review on P12-17

**Production**
Kraken and Catcher, two of the largest UK North Sea developments in recent years, now in production, will deliver sustainable cashflow for reinvestment.

Read more: CEO's Review on P12-17

## 2018 strategic objectives

**Deliver exploration and appraisal success**
**Purpose:** Grow the resources and reserves.

**Portfolio management**
**Purpose:** Maintain the optimal portfolio balance and maximise value.

**Mature developments**
**Purpose:** Progress development projects.

**Deliver operational excellence**
**Purpose:** Maximise revenues through efficient operations.

**Maintain licence to operate**
**Purpose:** Deliver value in a safe, secure, environmentally and socially responsible manner.

**Deliver a sustainable business**
**Purpose:** Maintain a self-funding business model.

## 2018 principal risks

- Inability to secure or repatriate value from Indian assets
- Delay in Senegal development plan
- Kraken and Catcher operational and project performance
- Reliance on JV operators for asset performance
- Health, safety, environment and security
- Political and fiscal uncertainties
- Access to debt markets
- Exploration and appraisal
- Volatile oil and gas prices
- Securing new venture opportunities
- Fraud, bribery and corruption

## 2017 material issues

- Economics and funding
- Contractors and supply chain
- Ethics, anti-bribery and corruption and transparency
- Social and economic benefit
- Human rights
- Major accident prevention and safety
- Climate change, emissions and discharges

## **Business Model & Strategy** continued

# 2017: Delivering our strategy

Cairn's strategy is to create, add and realise value for shareholders from a balanced portfolio of exploration, development and production assets.

In 2018 Cairn will have been listed on the London Stock Exchange for 30 years. An experienced oil and gas operator, it has successfully discovered and developed reserves in a variety of international locations in partnership with host governments. Cairn's historical focus on South Asia created significant value for shareholders and stakeholders, particularly through its discovery, development and production of oil in Rajasthan, India, which was the largest onshore discovery in India for more than 25 years. A long-term investor in India, Cairn sold the bulk of its interests in 2012 and set about rebuilding the portfolio. Between 2006 and 2012 Cairn returned US$4.5bn to shareholders.

Having created a legacy asset for India, Cairn then focused on rebuilding the business to create, add and realise value once again through exploration, development and production. We made the largest global offshore discovery of 2014 in Senegal, and participated in the development of two of the largest current projects in the UK North Sea which began production in 2017.

Cairn's exploration focus is on adding value for shareholders from high impact exploration at appropriate equity levels. This exploration is sustained by the Group's production and development assets in the North Sea which will provide the cash flow to support future exploration and development activity and deliver the long-term strategy.

Cairn's focus on frontier acreage saw us open a new hydrocarbon basin in 2014 with our discoveries offshore in Senegal. Cairn was the first to drill in deepwater offshore Senegal which remains relatively underexplored. Over the following three years we delivered a successful exploration and appraisal campaign increasing this significant resource base and transitioning the SNE discovery into development planning.

Along the Atlantic Margin, Cairn also holds exploration acreage offshore the Republic of Ireland and in 2017 we expanded our position by securing two new licences in Mexico. The Mexican Gulf region is significantly under-explored compared to the nearby analogous United States Gulf of Mexico and we look forward to commencing exploration drilling in 2019.

Cairn has producing and development assets in the mature basins of the UK and Norwegian North Sea. In 2012 Cairn acquired non-operated interests in two of the largest developments in the North Sea, Kraken and Catcher, which came into production and delivered first oil significantly below budget in 2017. We are also driving the Nova discovery towards development with a final investment decision planned in 2018.

Cairn also holds exploration acreage in the UK and Norway which we believe has high potential for commercial oil discoveries. The mix of mature and emerging basins along the UK and Norwegian continental shelves provides good opportunities for balanced portfolio growth and operational synergies. The region also provides an active market for the trading of assets, an important part of optimising value within the portfolio.

In order to deliver maximum value Cairn continues to actively manage its portfolio of assets, with the constant evaluation of new exploration opportunities as well as opportunities to acquire and divest assets within the existing asset base to ensure optional portfolio balance and maximise value.

**"Cairn's exploration focus is on adding value for shareholders from high impact exploration at appropriate equity levels."**

## Geographic focus

### Senegal

**1** Pre-development Discovery

**Acreage**
**7,137**km$^2$

**2C resources**[1]
**190.8** mmboe

### UK

**2** Producing Fields

**Acreage**
**542**km$^2$

**2P resources**[1]
**53.8** mmboe

**2C resources**[1]
**3** mmboe

### Republic of Ireland

**5** Licences

**Acreage**
**4,247**km$^2$

### Norway

**1** Pre-development Discovery

**Acreage**
**6,908**km$^2$

**2C resources**[1]
**21.3** mmboe

### Mexico

**2** Licences

**Acreage**
**1,153**km$^2$

1 As at 31.12.17.

**Business Model & Strategy** continued

**Track record of exploration, development and production**

# Cairn is an experienced oil and gas explorer, developer and producer

During its history Cairn has operated in a variety of locations around the world. Today Cairn is focused on its recent frontier exploration discoveries in Senegal and its producing assets in the North Sea which delivered first oil in 2017. These will provide the cash flow to sustain future exploration and development activity.

We continued to build the portfolio, including the addition of highly prospective acreage in Mexico during 2017, and to maintain our strong record of safety and working with host governments.

## Exploration and appraisal

### India

**1997** Acquired interest in Rajasthan from Shell

**1999** First Rajasthan discovery

**2004** Three major oil discoveries by 2004 including Mangala, the largest onshore oil find in India in 25 years

### Senegal

**2013** Farm-in as operator to frontier acreage offshore Senegal

**2014** Two wells drilled, two oil discoveries, one of which is largest global offshore oil discovery of 2014

**2016** Four successful wells drilled, independently verified contingent in place, gross oil resource upgrade to >2.7bn bbls

**2017** Successful third phase of drilling completed

### UK & Norway

**2012** Discovery of Nova field (formally Skarfjell) in Norway

**2018** Extensive drilling campaign planned for 2018/19

## Development

### UK & Norway

**2012** Future production and cash flow secured through acquisition of two UK & Norway focused companies bringing Kraken and Catcher developments, Nova prospect, near term exploration drilling, more than 30 licences

**2013** Kraken Field Development Plan (FDP) approved, successful Nova appraisal well

**2014** Catcher FDP approved, Kraken Floating Production, Storage and Offloading (FPSO) construction starts

**2015** Catcher FPSO construction starts

**2016** Kraken and Catcher development drilling starts

**2018** Nova development sanction expected

### Senegal

**2018** Planning for development of world class SNE field

## Production

**2017** First oil production from both the Kraken & Catcher developments in the UK North Sea

**Business Model & Strategy** continued

**A culture of working responsibly**

# Cairn has a strong track record of exploration, discovery and development in a variety of locations throughout the world over more than 30 years.

Delivering value in a safe, secure, environmentally and socially responsible manner for all our stakeholders is key to our strategy and ensures we maintain our licence to operate.

Maintaining our licence to operate is a Key Performance Indicator for Cairn, one that is dedicated to working responsibly and therefore central to our culture. It is also measured through our people management process which incorporates certain behaviours identified as critical to ensuring this culture exists.

A culture based on working responsibly means having the right values, principles and policies in place. These need to be embedded throughout all that we do and the organisation needs to ensure that they are upheld throughout the business. In 2017 we combined our Business Principles and our Code of Business Ethics into a new, standalone Code of Ethics. The new Code applies to all employees and officers of Cairn but also to all other parties who work on behalf of the company including contractors, suppliers and partners.

Simon Thomson and Mike Hunter explain how our culture is a key part of why we are successful.

## Simon Thomson, CEO

Chief Executive Simon Thomson is one of the longest-serving employees of the company, having joined the legal department in 1996. Progressing his career in different roles over the past 21 years, he has seen a number of developments and changes at Cairn, but says that one thing has remained constant.

"The culture and the way we do business is just the same as it has been since the beginning. Those things have not changed. There is an entrepreneurial spirit in Cairn which gives it an agility and flexibility that you don't get with other companies. Cairn really is different by design."

He says that strong culture is what keeps the business moving forward. "We have a very open mindset, and one that is cooperative and collaborative, but with an eye on what we want to achieve. The philosophy of the company is deeply embedded: there is nothing we can't do if we focus and work at it.

"We are a relatively small company and that is deliberate. It would be easy to grow for the sake of it, but we have taken the decision to stay 'lean and hungry'. It's not an easy model, to create, grow and realise value, and then start from the beginning to do it all over again, but that is our strategy. It involves constant adaptation and change, but we believe it is the right way to create value and returns for shareholders."

Despite the continuity, Simon did have an idea in his mind about how he wanted to operate the company when he became Chief Executive in 2011, following five years as Commercial Director. "I knew what I wanted to achieve and that was make sure that we had a balanced portfolio, with cash flow, development and operations that are sustainable over the long-term and would work through the cycle. I think we have achieved that aim and have created a long-term business.

Simon says that Cairn prides itself on approaching all aspects of the business with the same rigour and discipline.

"We want to make sure that wherever we go, whatever we do, and whoever we have an impact on, we engage in a way that matches our culture of sustainability. We use our driving principles of Respect, Relationships and Responsibility to make sure that we try to create a long-lasting legacy, not just funding a few short-term projects. We have to leave a beneficial impact on the communities where we work.

"What pleases me is that when we go into countries and we speak to political leaders or governments, they know about Cairn. Our reputation for how we operate and manage responsibly has gone before us. I am extremely proud of how we have built and maintained this reputation and that is down to the culture and attitude of every individual working in the organisation."

> "It means we must act with respect for people, communities and the environment."

## Dr Michael Hunter, Group HSE Manager

Mike Hunter is conscious of the legacy that he took on as custodian of Cairn's Corporate Responsibility Management System.

"This has been a foundation of the company's success since it began", he said. "As the person responsible for leading all the group's Corporate Responsibility activities, with the backing of the Board, I'm responsible for helping to manage what we stand for.

"I work with our Management Team to implement that. This is captured in our Business Principles that are embedded in our company and its strategy: Respect, Relationships and Responsibility, or the 3 Rs. We look at these continuously and we have now integrated them into our new Code of Ethics.

"It means we must act with respect for people, communities and the environment, acting with integrity and transparency in all our relationships, and behaving ethically and fairly. It's all about doing things in the right way."

As part of that, Mike's job is also to review good practice and the adoption and compliance with relevant regulations wherever we work. A recent example is the Modern Slavery Act in the UK, as well as incorporating international initiatives such as the UN's Sustainable Development Goals into Cairn's operations and behaviours.

Mike's team starts by looking at the major hazards or risks that the company may face from a Corporate Responsibility perspective, including potential health, safety, social, environmental and security risks. Our mitigation must be in line with the Cairn Corporate Responsibility Management System (CRMS). We integrate our assessment of risk into corporate and operational management activities, applied through Cairn's Operating Standards (COS).

"We use a gated process under COS, making sure that we only move on to the next stage once we have satisfied ourselves that the risks have been addressed in line with our CRMS requirements.

"We build conformance with these requirements into our Key Performance Indicators (KPIs) to ensure that our approach is embedded throughout the company. As part of this, all Cairn employees are measured on their performance against a series of behaviours related to the 3 Rs: being safe, entrepreneurial, focused, collaborative, open, empowered and demonstrating leadership. Our Corporate Responsibility KPIs are cascaded through the organisation to a personal level and this means staff have a stake in ensuring we continue to uphold our standards and demonstrate that we do.

"Fundamentally, working in this way protects our business and our licence to operate. We have zero tolerance for non-compliance and stand up strongly for acting responsibly. The tag line in our CRMS is a quote from Martin Luther King Jr – 'The time is always right to do what is right' – and that is how we proceed. The 3 Rs are a key element of our calling card, ensuring we are seen as competent operators and partners and can be trusted to behave in the right way and manage our business responsibly."

### Our core values

At the heart of our culture are our core values which are known as the 3Rs, and which stand for:

**Building Respect**

**Nurturing Relationships**

**Acting Responsibly**

## CEO's Review

# Positive progress

Cairn's strategy is to create, add and realise value for shareholders from a balanced portfolio of exploration, development and production of oil and gas assets within a self-funding business model. 2017 was a successful year for Cairn as we achieved several important milestones and progressed our strategy as a full cycle exploration and production company.

Over the last year, we delivered an active programme across a balanced business creating opportunities for both exploration growth and future production and we are well-placed to deliver our long-standing strategy of sustainable value creation.

In Senegal, a key area of focus for the business with the potential to deliver significant future production, we successfully executed five further exploration and appraisal wells. This third phase of drilling achieved an excellent performance in health, safety, environment and corporate responsibility management, with no lost time incidents, alongside significant cost and schedule reductions.

The appraisal activity is now complete for the SNE field and the Joint Venture (JV) has agreed the concept select. We are targeting Government approval of a phased SNE development by the end of this year to deliver first oil for Senegal in 2021-2023. Given the scale of the potential resource in place, we look forward to continuing to work closely with the Government of Senegal to deliver lasting and positive social and economic benefits in country. A successful oil and gas industry can greatly benefit the people of Senegal and Cairn is investing in and supporting economic growth and good governance.

In terms of current production, the non-operated Kraken and Catcher developments were highlights in the year, both achieving first oil with total project capital expenditure significantly below the original sanction estimates. Kraken experienced ramp up issues during 2017 which resulted in an extended commissioning phase. Catcher was on stream by the year end and production levels were deliberately constrained and will increase in phases before capacity is reached. These two major UK North Sea developments will continue to ramp up to plateau production rates, with peak net production to Cairn of approximately 25,000 bopd, delivering significant cash flow and capacity for reinvestment.

In addition, the non-operated Nova development project in Norway is in the final stages of project sanction and is expected to deliver first oil in 2021 with peak net production to Cairn of 10,000 bopd. The three projects of Catcher, Kraken and Nova can be expected to provide production and cash flow to Cairn over the next five years as the Senegal development comes on stream.

In 2017, we have continued to focus on creating a strong platform for future growth from exploration. We have successfully grown and diversified the portfolio across three core areas of the mature basins of UK and Norway, emerging basins in Senegal, Barents Sea and Mexico and frontier basins along the Atlantic Margin in Ireland and most recently, Suriname.

We were delighted to secure a new country entry with a large acreage position in Suriname which has a conjugate margin with Senegal where we have excellent proprietary insight and understanding. Cairn has 100% equity in the Suriname licence.

The UK and Norway region is a key focus for Cairn and we have successfully built an extensive portfolio across a variety of play types. Cairn has a material drilling programme planned which includes up to ten wells, targeting more than 700 mmboe net unrisked resource. The Tethys exploration well has achieved TD and operations are continuing. The Raudåsen exploration well spudded in Q1 2018 and is currently operating. The first Cairn operated UK exploration well (Ekland) is expected to commence operations in Q3 2018.

In international exploration, in addition to the Suriname new country entry, Cairn was delighted to secure two new licences in Mexico which are located in the prolific but under-explored Sureste basin, offsetting recent world class oil discoveries. Exploration planning is underway for four wells targeting more than one billion boe gross unrisked resource with drilling in 2019/2020.

In Ireland, we have grown our acreage position in the Porcupine Basin with an interest in five licences with multiple play types. In 2017, Cairn participated in one unsuccessful exploration well with Operator Providence Resources.

We also supported a multi-client 3D acquisition where interpretation work is ongoing to assess future exploration opportunities.

In conclusion, 2017 was a year when Cairn's investments in the Catcher and Kraken developments started to bear fruit and the company firmly established its position as a sustainable explorer with the cash flow to invest in a measured way in the drill bit and in the next key developments of SNE and Nova. We continue to shape the business for the future and actively assess new ventures within the context of our balanced offering, whether they be potential additions to our portfolio of future exploration opportunities or cash flow generating assets.

Corporate Responsibility is at the heart of the Cairn business, and remained the priority in 2017 with a strong focus on the health, safety, security and wellbeing of our people. We promote safe behaviours of contractors and partners and in Senegal, where the industry is relatively new, Cairn has been able to provide strong leadership in this area. We are committed to protecting the environment in all of the areas where we operate, and good governance is also key to our commitment to meet all obligations in a responsible, open and transparent manner.

Iain McLaren, our Senior Independent Non-Executive Director has informed the Board that he will not be seeking re-election at the company's Annual General Meeting in May 2018 and will retire from the company on that day. I would like to thank Iain for his excellent contribution to the Board during the last nine years of service to Cairn. Following Iain's retirement from the Board, Keith Lough will assume the role of Chair of the audit committee and Peter Kallos will assume the role of Senior Independent Non-Executive Director.

I would also like to recognise and sincerely thank all our employees across the group as well as the contractors and suppliers for their excellent efforts and hard work during 2017 in what has been another successful year for Cairn. We look forward to working together in the exciting year ahead.

**SIMON THOMSON**
Chief Executive
12 March 2018

## Working responsibly

Corporate Responsibility is at the heart of Cairn's business. We aim to deliver value from our assets and people for the benefit of all our stakeholders in a responsible manner. We underlined the importance of working responsibly in 2017 with the publication or our new Code of Ethics, which brings together our Business Principles and Code of Business Ethics in a single published format for the first time. This further improves our established Corporate Responsibility Management System and helps build on our strong track record.

Wherever we work we apply international industry standards of good practice. We continue to be committed to the Extractive Industries Transparency Initiative (EITI), the UN Global Compact and more recently we have begun integrating the UN Sustainable Development Goals into impact benefit planning.

During 2017 we once again undertook a review of the issues that were material to our business. Following discussions with stakeholders, both internal and external, as well as our own risk management process, we identified the following material issues:

- Economics and funding
- Contractors and supply chain
- Ethics, anti-bribery and corruption and transparency
- Social & economic benefits
- Human rights
- Major accident prevention and safety
- Security
- Climate Change, Emissions and Discharges
- Biodiversity

These guide us in setting our Corporate Responsibility objectives each year, which form part of our Key Performance Indicators. We recognise that we are accountable to our stakeholders on our progress against these objectives; hence our continued focus and our commitment to delivering against them.

We have also produced a Modern Slavery Statement this year for the first time. Whilst we are not obliged to do so at this time we recognise stakeholder expectation and the need to demonstrate our commitment to zero tolerance, prevention in our supply chain and transparency. We have also set up training on how to detect potential instances and improved our procedures to help prevent modern slavery within our supply chain.

As we continue to deliver success across our business we are working to bring lasting and positive social and economic benefit to stakeholders. Senegal is a clear example, where we believe that a successful oil and gas industry could generate significant social and economic benefit for the country. This can support country development, improve infrastructure, drive inward investment and assist in reducing reliance on solid fuels whilst providing affordable energy. We must always remember that in delivering any commercially attractive project it is important that we maintain our high standards to protect people and the environment and deliver our commitment to always working responsibly.

48 Read more: **Working Responsibly** on **P48-75**

## CEO's Review continued
## Operational review

### Highlights of 2017

#### Senegal – Development

SNE field development concept select achieved with planned key milestones leading up to first oil expected in 2021-2023:

- Invitations to Tender (ITT) commenced in Q1 2018 with major Floating Production Storage and Offloading Vessel (FPSO) and subsea infrastructure contractors; a redeployed FPSO is the preferred development option
- Evaluation Report in preparation and expected to be submitted to the Government of Senegal in H1 2018
- Front end engineering and design (FEED) to commence in H2 2018
- Formal transfer of Operatorship (TOO) to Woodside expected to take place in H2 2018, subject to Government approval
- Exploitation Plan targeted for submission and approval in H2 2018 with the Final Investment Decision (FID) to follow: Cairn targeting initial production rate of ~100,000 barrels of oil per day (bopd) and estimates up to 25 wells in initial development phase, targeting ~240 mmbbls principally in S500 lower reservoir: subsequent phases targeting >250 mmbbls in the S400 upper reservoir

#### Senegal – Exploration & Appraisal

Five successful wells drilled in 2017 (Cairn 40% WI, Operator) in third phase of exploration and appraisal activity with operations delivered safely and successfully completed ahead of schedule and under budget

Ongoing evaluation of further Cairn operated exploration opportunities

#### UK & Norway – Production

Catcher (Cairn 20% working interest (WI)) and Kraken (Cairn 29.5% WI) developments in the UK North Sea achieved first oil production in 2017, with total project capex expenditure estimated by the Operators to be ~30% and ~25% below original project sanction

2018 full year production, net to Cairn, estimated to be 17,000-20,000 bopd*, with ongoing project commissioning on both fields expected to be completed in H1 2018

Full capacity production expected to be achieved by mid-year, with peak net production to Cairn of 25,000 bopd, delivering significant cash flow for reinvestment

Nova development (formerly Skarfjell) (Cairn 20% WI) in Norway: JV completed FEED in 2017 and the Plan for Development and Operation (PDO) is anticipated in H1 2018

Nova first oil is targeted in H2 2021 and expected to deliver plateau production of 50,000 bopd, ~10,000 bopd net to Cairn

*Excludes 4.5% FlowStream interest in Kraken production.

Cairn's portfolio offers exposure to high impact exploration drilling at appropriate equity levels with production assets providing cash flow to sustain exploration and development activity.

### Senegal

Cairn drilled the first deep water wells offshore Senegal in 2014 and made two basin opening discoveries. Since then, the region has evolved from a frontier basin to an emerging oil play attracting the attention of the global industry. In the last three years, Cairn has operated three drilling programmes and has now successfully laid the foundation for a multi-phase development plan.

The third phase of drilling took place in 2017, completing the appraisal activity for the development of SNE. Cairn successfully drilled five exploration and appraisal wells in the year: SNE-5, VR-1, SNE-6, FAN South-1 and SNE North-1.

The SNE-5 and SNE-6 wells were drilled and successfully tested and an interference test was completed between the two wells confirming reservoir connectivity. The VR-1 well confirmed the predictability of the mapped reservoir but was unsuccessful at a deeper carbonate horizon. The FAN South-1 well results are being integrated with the FAN-1 basin discovery to assess greater FAN complex potential. The SNE North-1 well encountered a deeper and separate reservoir to the SNE field and further work is underway to determine commerciality. The SNE North-1 well has positive implications for further hydrocarbon potential.

The drilling operations were completed under budget and significantly ahead of schedule. Once again, the campaign was delivered with an excellent health, safety, environment and corporate responsibility performance.

The JV has passed the development concept for the SNE field and is aligned on a phased and cost effective development plan. The first phase will focus on the lower S500 reservoirs. A vessel with a capacity of ~100,000 bopd is being targeted. Cairn estimates up to 25 wells in the initial development phase, targeting ~240 mmbbls.

Subsequent phases of the development, which are anticipated to follow phase one after two to four years, will target >250 mmbbls in the S400 upper reservoir and include potential gas export. These are also expected to focus on maximising the economic recovery of the field within the twenty five year term of the Production Sharing Contract, for which a ten year extension is also provided.

The key deliverables for SNE development of geophysical, environmental baseline and geotechnical surveys have all been completed. Invitations to tender have commenced with major FPSO and subsea infrastructure contractors, with a redeployed FPSO seen as the preferred development option. Detailed work has also commenced on project debt financing.

The development timetable is now focused on the JV's Evaluation Report which will outline the basis of commerciality of the project. The Evaluation Report is close to finalisation and is expected to be submitted to the Government of Senegal in H1 2018. Key work is also progressing on detailed concept and front end engineering and design (FEED) with preferred contractors beginning in H2 2018.

The Exploitation Plan which will outline the full life of the PSC development plans and options, including a detailed definition of the first phase, is targeted for submission in H2 2018. At the same time the formal TOO of the development to Woodside will commence. Government approval is targeted for the end of 2018, with the FID thereafter. First oil from Senegal is expected in the period 2021-2023.

Alongside development planning, we are evaluating the potential for further exploration opportunities around the SNE discovery where there is significant untested prospectivity.

Cairn (Operator) has a 40% Working Interest (WI) in the three blocks offshore Senegal (Sangomar Deep, Sangomar Offshore, Rufisque Offshore) alongside partners: Woodside 35% WI, FAR Ltd 15% WI and the Senegal National Oil Company, Petrosen 10% WI. Petrosen have the option to increase to 18% WI on development.

## UK & Norway

The UK and Norway is a core region for Cairn where the company has an extensive portfolio across a variety of plays. We have built a balanced portfolio of exploration, appraisal and development assets.

Cairn has a material exploration drilling campaign underway with up to ten wells planned, subject to partner approvals, targeting ~725 mmboe net unrisked resources. This includes, Ekland, which is Cairn's first operated UK exploration well and is expected to spud in Q3 2018 (Cairn 45% WI).

The Tethys well has reached TD and operations are continuing. The Raudåsen exploration well spudded in Q1 2018 and is currently operating.

**Developments**

The three developments of Catcher, Kraken and Nova are a key part of our strategy to build steady future cash flows to sustain the business model and fund future exploration and appraisal across the group.

### Kraken

Kraken is a large heavy oil accumulation, located in the East Shetland basin, ~125km east of the Shetland Islands.

Following first oil from Kraken in June 2017, the development had a number of FPSO commissioning issues resulting in an extended commissioning phase during which the performance of production facilities has continued to be optimised, initially through the first processing train. The second processing train was brought online in November, resulting in gross production rates of more than 40,000 bopd. All Drill Centre (DC) 3 wells have now been brought online and operational efficiency has improved. In January and February 2018, average gross production was consistently between 40-50,000 bopd when all 11 producers and 10 injectors were on line.

Completion of firm development drilling with the DC4 well campaign in the central part of the field is expected to commence later this year. The cost of this programme has been reduced following the renegotiated terms agreed with Transocean.

Following the delivery of the DC3 drilling programme and lower market rates for the remaining subsea campaign, full cycle gross Kraken project capex was further reduced during the year and is currently estimated by the Operator to be more than 25% lower than originally sanctioned.

With regular liftings now established from Kraken, there has been strong interest in this crude from European, US and Asian buyers and consequently the average discount to Brent is expected to narrow.

### Catcher

Catcher lies in the UK Central North Sea, ~180km off the North East coast of Scotland and comprises three separate fields: Catcher, Burgman and Varadero. The fields will be produced from up to 20 subsea wells with a combination of production and water injection wells tied back via subsea infrastructure to the newly built BW Catcher FPSO. The vessel receives, processes and stores crude oil from the Catcher area and exports associated gas.

The FPSO hull was built and the topsides constructed in Singapore before arriving on location in October. Successful commissioning activities resulted in the start-up of Catcher with first oil in December 2017.

As planned, production has been ramped up in phases, firstly from the Catcher field, then Varadero in January which will be followed shortly by Burgman. Production levels have been deliberately constrained during the ramp up phase while commissioning of the full gas processing modules and the water injection systems on the FPSO is being carried out. Full production from the Catcher Area of 60,000 bopd (gross) is expected in Q2 2018. The first two export cargos of over 500,000 barrels each were lifted in January and February and sold at a premium to Brent.

# CEO's Review continued
## Operational review

### UK & Norway – Exploration

- In 2017, Cairn continued to build an extensive exploration portfolio primarily focused on light oil
- Exploration drilling campaign currently underway for 2018/19, with plans to drill up to ten wells over the next two years targeting more than 1.5 billion boe gross unrisked resources (~725 mmboe net to Cairn unrisked resource) across a variety of play types
- Tethys exploration well (35/9-14) has reached TD and operations are continuing on well 35/9-14A
- Raudåsen exploration well spudded in Q1 2018 and is currently operating
- Cairn awarded non-operated interests in three new licences and one licence extension in APA 2017 in Q1 2018
- Applications submitted in UK 30th Licensing Round

### International – Exploration

- Two new licences in the Mexico offshore bid round in H1 2017; one operated and one non-operated licence located in the prolific yet under-explored Sureste basin
- Plan to drill four wells in 2019/2020 on Blocks 7 and 9 which are offsetting recent world class discoveries and targeting more than 1 billion boe gross unrisked potential
- Interest in the Boujdour Maritime licence (Cairn 20% WI) offshore Western Sahara was relinquished, alongside the Operator, in Q4 2017
- Cairn did not extend its Exploration Study Agreement for Area 3, Blocks 1, 2 and 3 in Malta in H1 2017
- Cairn participated in one unsuccessful well on FEL 2/14 in the Porcupine basin offshore Ireland in H2 2017 (Cairn 30% WI)
- Extensive new 3D acquired in West Porcupine basin during 2017

### New Ventures

- In Q1 2018, Cairn was awarded an operated exploration agreement (Cairn 100% WI) and is finalising the Production Sharing Contract (PSC) with Staatsolie (State Oil Company of Suriname), on acreage on the Demerara plateau offshore Suriname, with 2D seismic and contingent 3D seismic activity proposed, beginning in 2019

Drilling activities have continued, with 14 production and injection wells drilled and completed with positive reservoir results, with 12 of these wells being tied in ahead of first oil. The rig is currently drilling the CCP6 well on the second Catcher template and will drill a further Catcher well before moving to the Burgman field. A total of 18 wells will be drilled by September 2018 before a planned drilling break. The Operator remains encouraged about the overall recovery from the Catcher Area and continues to forecast peak plateau production of ~60,000 bopd (gross), 20% higher than the production level envisaged which the project was sanctioned.

The JV is examining future Catcher Area development opportunities to make full use of the newly commissioned facilities. Studies are underway for the future development of the 2016 Laverda discovery in conjunction with an infill well in the northern area of the Catcher Field.

**Nova**

The planned Nova development sits ~16km south west of the Gjøa field in Norway. The JV has completed FEED for the Nova development. Based on the proposed plan, hydrocarbons from the Nova reservoir will be developed with two subsea templates tied back to the Gjøa platform for processing and export. Gjøa will also provide lift gas to the field and water injection for pressure support. One template will be used for water injection, while the other will be used to produce hydrocarbons.

In Q1 2018, the Operator awarded the contracts for the subsea production system and umbilicals, risers and flowlines, which

Paul Mayland and Brita Holstad visiting the Kraken FPSO allows the JV to progress towards the execution phase of the project with the PDO anticipated for submission to the Government in Q2 2018. It is expected that debt funding from existing RBL facility will be available to fund the development. First oil is targeted in 2021 and expected to deliver gross plateau production of 50,000 bopd.

## International Exploration

Cairn seeks to generate value with an evolving portfolio of prospects, offering the potential to mature into a choice of material drilling targets. Cairn's geographical focus is on the Atlantic Margin where, in addition to Senegal, we have key interests in Mexico, Ireland and most recently Suriname.

Cairn was successful in securing both of our targeted, two new licences in the highly competitive Mexico offshore bid round in H1 2017. The company was awarded one operated and one non-operated licence located in the Gulf of Mexico in the shallow water Sureste basin in water depths of 100-500 metres and ~50km offshore.

These licence awards provide an exciting opportunity to build a portfolio over time in this highly prolific yet under-explored region. Cairn and its partners identified and secured favoured blocks with multiple stand-alone prospects and numerous follow-on tie-back opportunities based on 3D seismic data.

Cairn is partnering with ENI, an experienced explorer and operator in Mexico, and Citla Energy, a Mexican focused Exploration Company and we look forward to working with our new partners and the Government of Mexico to deliver the work programme in the coming years. The approval process is underway to commence drilling three wells in 2019 and a fourth well in 2020 on Blocks 7 and 9 (offsetting recent world class discoveries), targeting more than 1 billion boe gross unrisked potential resource. Cairn plans to submit an Exploration Plan to the Government of Mexico in March on the operated block 9 and following approval will commence the four year period of the licence.

In Q1 2018, Cairn was awarded an operated exploration agreement (Cairn 100% WI) and is in final negotiations on the PSC with Staatsolie on acreage in the Demerara plateau offshore Suriname with 2D seismic and contingent 3D seismic activity and significant future drilling opportunity. The licence covers an area of ~13,000km$^2$ and has a conjugate margin to Senegal where Cairn has significant proprietary data.

In Q1 2017, Cairn advised the Maltese Continental Shelf Department that it would not be extending its Exploration Study Agreement for Area 3, Blocks 1, 2 and 3. Cairn and its JV partner, had fully explored its offshore licences in the Ragusa Basin between 2012-2017 through the acquisition and evaluation of 5,500km$^2$ of new and reprocessed 3D seismic. All licence commitments were exceeded.

At the year end 2017, Cairn along with the Operator, Kosmos Energy, relinquished the interest in the Boujdour Maritime licence offshore Western Sahara. The JV will fulfil its contractual obligations and complete the 3D seismic acquisition currently underway.

In Ireland, Cairn has a growing acreage position in the Porcupine Basin with an interest in five licences over an area of more than 4,000km$^2$. In the year, Cairn farmed in to LO 16/19 (Cairn 70% WI, Operatorship) which added further acreage to the previously awarded adjacent LO 16/18. Activity in 2017 focused on developing a lead and prospect inventory across the licences 16/19 and 16/18 where the company participated in a large multi-client 3D acquisition programme to be processed in 2018. Cairn also farmed-in to FEL 2/14 and participated in one unsuccessful exploration well with Operator Providence Resources; the 53/6-1 well, which spud in H2 2017 and targeted two large stratigraphic traps, Druid and the deeper independent Drombeg target. This was the deepest water exploration well drilled to date offshore Atlantic Ireland.

## Outlook

We have made excellent progress against our strategic objectives in the year, delivering key milestones in the development planning of the resource base in Senegal, achieving first oil and cash flow from our North Sea developments and continuing to replenish and extend future exploration opportunities. Our portfolio provides exposure to high impact exploration drilling whilst the group's production assets provide the cash flow to sustain exploration and development activity. The strategic development and progress of the Cairn business has been achieved whilst maintaining balance sheet strength and funding flexibility.

Simon Thomson and colleagues visiting the Kraken FPSO in Rotterdam, 2017

## Industry Overview

# Putting our industry in context

This industry overview provides an independent view of the industry context in which Cairn operates.

Energy markets are poised for change. Decarbonisation and the provision of affordable energy are the overarching public policy goals shaping the strategies and investment programmes of energy suppliers, large and small.

The 'energy transition' towards a low carbon world will bring perhaps the most significant structural changes for a generation or more. The long-term implications are provoking heated debate across the industry, the fundamental outlook for energy is positive. Economic growth across emerging and developed markets will drive continued growth in energy demand for decades to come. Oil and gas are each projected to still provide just under one third of primary energy demand in 2035 on Wood Mackenzie forecasts: similar to the current proportion, but of a much bigger total energy market.

The outlook for oil demand looks robust, although the rate of growth is expected to slow compared with the last 20 years. Improved energy efficiency and the potential for electric vehicles to capture market share from the internal combustion engine are two big factors that may lead to demand from the transportation sector peaking around 2030. But strong growth from petrochemicals, and plastics in particular, will mean that overall oil demand continues to grow for years to come. Global consumption looks set to approach 110 million barrels per day by 2035, 10% more than today (Wood Mackenzie forecasts).

**"Global consumption looks set to approach 110 million barrels per day by 2035, 10% more than today."**

Natural gas is the cleanest and lowest-carbon fossil fuel, and has strong growth prospects. Climate change policy and air quality concerns in Asia will support a long-term switch towards gas-fired power generation from coal. Gas will also play an increasingly important role complementing intermittent renewable generation in many countries as wind and solar capacity is rolled out. Global gas demand is set to grow at 2% p.a. to 2035 on Wood Mackenzie forecasts. Renewables and other forms of clean energy are growing more rapidly, though from a low starting point.

**About the author:**
Simon Flowers – Chairman Energy and Chief Analyst, Wood Mackenzie

Wood Mackenzie is a global leader in commercial intelligence for the natural resources sector. Our dedicated oil, gas, power, chemicals, metals and mining sector teams are located around the world. They deliver research and consulting projects based on our assessment and valuation of thousands of individual assets, companies and economic indicators such as market supply, demand and price trends. At every stage, we apply a rigorous analytical approach to provide objective analysis and trusted advice that is valued around the world. Our clients trust us to help them make confident strategic decisions, based on integrated analysis and deep industry knowledge.

## The environment, corporate social responsibility and the oil industry

The Paris Agreement on climate change of November 2016 set a framework for limiting carbon emissions from fossil fuels. This is one of a number of policy and regulatory developments that will increasingly play a part in determining the outlook for energy demand and how energy suppliers operate in the future.

Exploration and production activity is coming under increased scrutiny in all spheres of operation and environmentally sensitive regions in particular. Providers of capital will become more selective in financing fossil fuel developments with a risk of environmental impact or which have a high carbon footprint.

Successful oil and gas companies of the future will need to adapt to tightening regulations and observe the highest standards of corporate and social responsibility. Among the challenges will be cutting emissions from operations, reducing the carbon intensity of portfolios, and minimising the impact of investment on the wider environment.

## Exploration

Oil and gas explorers are emerging from the downturn with smaller investment budgets but with a central role to play in resource capture. The outlook is for only gradual change through 2018, with industry investment around 40% of peak and well counts stubbornly low. Within this reduced global investment in exploration, two themes will stand out: firstly, the number of committed explorers has dwindled and corporate diversity will remain unusually narrow; and secondly, much of the industry is chasing similar opportunities.

The most-favoured plays will be deepwater sweet spots, promising large resource, rapid commercialisation and development breakeven prices below US$50/bbl. Many of the best of these are around the Atlantic Margin, where targeted basins are a mix of the proven frontiers, such as Senegal-Mauritania, Guyana, and the US Gulf of Mexico, and unproven frontiers.

The Majors and a handful of bolder independents will operate most of the wells to watch. We expect the best discoveries to come from newly-proven plays and frontiers, as has been the case throughout this downturn. More than half of all volumes are likely to be found in deepwater. In the shallow offshore, success in 2017 marks Mexico out as another province with high potential.

Much of the industry's focus will be on acreage capture and re-loading for the longer term. For some, the priority will be to reposition the portfolio towards lower cost future discoveries and development opportunities. For others, it is simply portfolio renewal after a long period of inventory depletion. Around 40 licensing rounds will run through 2018. Competition for quality acreage will become more intense as the Majors and other big explorers chase the same opportunities. The highest-profile licensing rounds will, once again, be those scheduled in Brazil and Mexico.

Reset portfolios and lower costs are set to pay off. The industry should achieve double-digit, full-cycle returns on investment in 2018 (IRR, based on exploration costs including dry holes and development expenditure). Many exploration costs have halved versus their 2014 peak, helped by quicker drilling of most wells. Deflation, standardisation and project re-design are all helping reduce development costs. The industry will drill fewer, better wells focused on plays that are commercially attractive. After a number of difficult years, the economic outlook is looking brighter for explorers.

## Oil markets, E&P trends

Oil prices recovered strongly in 2017, Brent averaging US$54/bbl, up 24% on 2016. The agreement of November 2016 between OPEC and some non-OPEC producers to constrain production was extended through the year and helped to tighten an oversupplied market. Falling crude oil inventories, from record levels, in the latter part of the year also supported the recovery in prices.

Many of the challenges that have characterised the volatile market over the last three years remain in place. The fundamentals are likely to be weaker: global supply is expected to rise more rapidly than demand in 2018, despite OPEC signalling its intention to keep oil off the market through the year. Non-OPEC production is growing strongly, notably North America and Brazil. A countering factor is geopolitical risk – a heightening of tension in the Middle East and elsewhere is likely to support prices. We expect Brent to average US$60-65/bbl in 2018.

The upstream industry has adapted during the downturn, and is now positioning for recovery. Finances have been strengthened and costs cut. Technology, including digitalisation, is helping drive costs down further.

Many companies are again looking for growth opportunities. Global upstream investment has stabilised at around US$400bn; but with costs down, the industry is achieving more with less and is looking for projects that make money at US$50/bbl. Investment in US onshore is already rising (mainly unconventional oil), and we may see an increase in spend on conventional projects in 2018. Final Investment Decisions were taken on 33 greenfield conventional projects in 2017, up from twelve the previous year. We expect a similar number in 2018.

## North Sea activity

We believe the North Sea is on a firmer footing, and emerging stronger from the downturn. Production in 2017 rose, costs fell, and there was strong deal activity.

UK operators brought twelve new fields on stream, adding over 10% to production at peak. Production rose for the third year in a row, reaching 1.8 mmboe/d in 2017. The UK is 21st in terms of global production, comparable to Angola or Malaysia.

North Sea costs continued to fall, and on per barrel terms are now a third below their 2014 peak. Operators have achieved this through a combination of optimisation, efficiencies and market deflation. Although supply chain costs may now climb from the current low, much of the cost saving achieved is structural and should stick.

Private equity backed companies emerged as the key buyers of assets in 2017, supporting US$7 billion worth of deal activity. The resulting new breed of North Sea-focused companies sits alongside the Majors in control of the UK's most important assets. The Majors were by far the biggest sellers, along with utility companies and conglomerates exiting the upstream world altogether.

In a further boost to merger and acquisition activity, the UK Chancellor made important changes to the tax regime which limit the burden of decommissioning of UKCS platforms and infrastructure to buyers. The UK North Sea now has an internationally competitive tax rate, a constructive regulator and collaboration between companies is improving.

UK North Sea exploration is picking up, with new discoveries signalling the shelf still has potential.

Norway had a disappointing year in exploration, particularly in the Barents, where several high-profile wells came up short. But there was progress on development and production – a world-leading ten projects were given Final Investment Decisions and five fields started production.

## New Ventures and Exploration

### Ben Conley, New Business and Joint Ventures Manager

Cairn has an established and detailed process for identifying and assessing opportunities. As Ben Conley, the Group New Ventures Manager explains: "Our broad strategy is to focus on the Atlantic Margin; we look at it both from a geological and geographical point of view."

"The first step is to analyse all the sedimentary basins and rank them on the basis of how attractive they look in terms of hydrocarbon potential. We look at the subsurface potential, the quality of the rocks, but also at the above ground potential in terms of commerciality, political risks and other opportunities or challenges that individual basins may present.

"All basins are geologically different so we try to play to our strengths. We do focus on areas where we have the relevant experience or insight that may give us an advantage, but ultimately it's always about establishing where we believe there may be the best working petroleum systems and ensuring that we constantly have a pipeline of good drilling opportunities."

Cairn has a large team of geoscientists studying the data and assessing potential new ventures as they arise, which take several different forms.

"There may be some areas where there is open acreage that you can apply for. In other cases, the acreage may be held by others and it is a case of identifying farm-in opportunities. Thirdly there will be formal government bidding rounds, as in Mexico and Norway, where individual companies can bid for licences."

The secret of success, Ben says, lies in investing in people and data, and doing your homework. "The advantage can lie in coming up with new ideas, not just looking at the existing plays, but thinking about new ones.

"You also need to be flexible and nimble, so that you have the ability to change your approach and focus in response to new ideas and new opportunities that come in." The final piece is to form the right partnerships with the groups that have the right experience and expertise.

"For Cairn our strategy has always been to have a balanced portfolio, so we are always looking at things from that perspective.

"We want to have the right exposure to frontier basins, where the risk may be higher but the returns also greater, through emerging basins to mature basins. In these cases the hydrocarbon systems have been proven so the risk is lower, but as a result the returns may be slightly lower too. Each will have a different mix of technical, political and commercial risks so for us it's about having the appropriate exposure to each given the size and shape of the portfolio.

"We are not going to go out and scatter the map. Our focus and discipline is on building out a strategic presence in areas that we like. We are small enough to move fast and not be constrained by scale, but large enough to have the capabilities and the track record to win the confidence of governments and partners".

**"For Cairn our strategy has always been to have a balanced portfolio, so we are always looking at things from that perspective."**

## Eric Hathon, Exploration Director

In 2017, Cairn was awarded two licences – one operated and one non-operated – in a bid round for acreage offshore Mexico.

For Eric Hathon, Cairn's Exploration director, who joined the company in 2017 following a distinguished career at Marathon Oil, the region contains some of the most exciting basins currently being opened up for further exploration.

"It's a proven oil province; in fact one of the most prolific hydrocarbon provinces in the world that has given rise to some of the largest discoveries of oil accumulations. However, it is still relatively underexplored. You can see from recent discoveries that the region still has great prospectivity."

Exploration of the province has been made easier in recent years through the development of new technologies. Advances in 3D Seismic equipment now provide geologists with higher resolution imaging, making it far easier to view the sedimentary deposits frequently associated with hydrocarbons below the layers of salt boundaries.

Cairn is now in the process of studying the data it has acquired and developing potential prospects and leads. "We want to make sure we have the right processes in place," Eric says. "We can then move forward with Environment Impact Assessments so that we are ready to drill in 2019".

"This is a demonstration of the great operating capacity for a company of our size, that has been built up over many years. It gives us the ability and the competitive advantage to move quickly."

For Cairn, exploration in Mexico fits with its strategy of developing a diverse and balanced asset base with the appropriate exposure to frontier, emerging and mature basins. This includes ensuring the right mix of operated and non-operated assets.

"When you are operator, you have the advantage of setting the pace and the strategy. However, we also like working as non-operators when we have the right partnerships in place."

Cairn continues to screen opportunities and potential new ventures. "We see new things to evaluate all the time," he says. "But, we have exceptionally strict criteria for selection and screening."

**"This is a demonstration of the great operating capacity for a company of our size, that has been built up over many years. It gives us the ability and the competitive advantage to move quickly."**

# Commencing production and cash generation in the UK North Sea

Exploration | Development | Production


## Dave Beck, Development Manager

In 2017, Cairn began production in the UK with the North Sea Catcher and Kraken developments delivering first oil. They are two of the largest development projects in the area for many years, with Cairn holding non-operating interests in both.

As Cairn's Development Manager, Dave Beck works with the company's joint venture partners to assist the operators in successfully bringing the developments on stream.

"Each partner brings a different perspective and a different set of experiences to bear," he says. "For each project, while it is the role of the operator to bring the development to fruition, we can use our experience and expertise that have been acquired in other projects to support them. This could be in the form of highlighting risks that need to be mitigated that come from learnings from other projects.

"We work shoulder to shoulder and make sure that we have a shared purpose and are aligned in the way that we approach all aspects of the development."

Kraken reached first oil in June 2017 and is one of the largest current development projects in the UK North Sea. With a lifespan of up to 25 years it is located in the East Shetland Basin, ~125km east of the Shetland Islands.

For Catcher, which reached the first oil milestone in December 2017, one of the major operations was the construction of the Floating Production, Storage and Offloading vessel (FPSO), which began in 2015 following approval of the Field Development Plan by the UK government in 2014.

The development lies 180km off the North-East coast of Scotland and comprises three separate fields with total reserves of around 90 million barrels of oil equivalent. There are 19 planned wells, 15 producers and 4 water injectors. The FPSO, owned by BW Offshore, can process 60,000 barrels per day and has a total storage capacity of 650,000 barrels.

"Working on these developments requires the partners to be open and to work collaboratively," Dave says. "Vessels like the BW Catcher are incredibly complex and we have to ensure that the lines of communication between the partners work effectively."

**"Working on these developments requires the partners to be open and to work collaboratively."**

In the case of Catcher, that approach ensured that first oil was reached on schedule, and considerably under budget, with the initial sanction costs being reduced by 25% over the course of the project.

With Catcher and Kraken now both operating, Cairn's next development will be Nova in the Norwegian North Sea. Cairn holds a 20% interest in the project, for which a development plan is being submitted to the Norwegian Ministry of Petroleum and Energy, with approval expected in the third quarter of this year.

These three developments, Catcher, Kraken and Nova, are a key part of our strategy to build steady future cash flows to sustain the business model and fund future international exploration.

**UK & Norway, Kraken & Catcher**

**53.8 MMboe**

2P reserves (as at 31.12.17)

Dave Beck, Development Manager

**Cairn in Senegal**
**Working in Senegal**

# Developing a new oil frontier

In 2012 Cairn embarked upon a frontier exploration drilling programme in offshore West Africa resulting in the largest global offshore oil discovery of 2014 in Senegal.

Cairn has now successfully completed three exploration and appraisal drilling programmes in Senegal, further increasing this already significant resource base.


**Operational Review**
2017 saw the successful completion of phase three of Cairn's exploration programme in Senegal. A five-well exploration and appraisal campaign delivered world class results. Zero work days were lost to Health, Safety or Environmental issues at water depths sometimes in excess of 2km. That programme substantially improved Cairn's understanding of the extent of the SNE field.

Work then progressed onto the first phase of development of this extensive resource base. Working with our Joint Venture Partners we aim to have a government approved exploitation plan in place by the end of 2018, targeting first oil in 2021-2023.

The SNE development will be the first offshore development in Senegal and, as always, we want to make sure that it is designed, constructed and operated in a responsible way, meeting both international and local requirements.

Exploration | Development | Production

## Building a responsible working culture – Tom Campbell

As Logistics Manager, Tom Campbell is responsible for the handling, transportation and storage of the equipment that Cairn Energy needs to manage a drilling campaign, from transporting the food that the crew eats, to managing the helicopters that they fly in.

This can be even more of a challenge than it sounds. "When we go into a new, 'frontier' location we look at all the requirements of our operation and then assess the capability of the domestic market. In some cases, the local infrastructure and industry is sufficiently mature that this is straightforward, but in others it means building capacity from the ground up."

Although there is a deep water port in Dakar the team faced many challenges operating the county's first deep water drilling campaign. "In Senegal, there was very little oil and gas infrastructure because the industry was new and underexplored, so it was a case of quickly building the capability from scratch to the point where it was possible to meet Cairn's standards.

"Our priority has been to embed a culture of safety and efficiency into all of our operations but especially that of Logistics where Cairn has some of its greatest interaction with the domestic labour force. We were consequently delighted that in the most recent 'phase three' offshore drilling campaign this culture enabled the Logistics operation to achieve 500 days operations with no lost time injuries.

"Within this period the local logistics team handled over 19,500 metric tonnes of specialist oil field equipment. All of these lifts were heavy and many could be oddly shaped. Each one needed to be lifted off an international vessel, customs checked and put into storage/inspection before being loaded onto the vessels which sailed out the drilling unit. Because this was not a familiar local activity, we provided comprehensive training and ongoing coaching and mentoring in Health and Safety."

Tom joined Cairn in 2010. Since then, he has steered his course using the company's values of Respect, Relationships and Responsibility. As he explains, "These are not just words, they are the heart of how we approach our business. If we don't hold these attributes at the core of what we do, it is much harder to achieve the outputs that we want.

"I'm proud of what we have achieved in introducing and helping embed these standards in Senegal. Explaining why we work in the way that we do and moving forward with our partners together, managing operations responsibly is a very satisfying aspect of my work."

**"These are not just words, they are the heart of how we approach our business."**

Tom Campbell, Logistics Manager

**Cairn in Senegal** continued
**Working in Senegal** continued

## Delivering a safe and successful drilling campaign – Craig McGregor

Craig McGregor is Cairn's Group Well Engineering Manager. It is his responsibility to lead the team that brings together all aspects of Cairn's operational activities and ensure that everything goes according to plan. As well as being responsible for the delivery of the most recent drilling campaign in Senegal, he works with Cairn's joint venture partners in non-operated activities.

He describes the process that Cairn goes through when planning drilling operations. "It starts with the geologist and the subsurface organisation. As a team, they will have developed a clear view of where any oil and gas may be located within our licence areas. We then work together on the specifications required to drill a well safely, efficiently and responsibly. We always need to create a well design that is appropriate and specific to the conditions. It's vital from an environmental and safety point of view that we understand the parameters."

For Craig, that means ensuring he has the knowledge of the water depth, pressure, geology and target depth of each well to develop a bespoke solution. "Each well is different," he says, "but for each one the same rules apply. Nothing happens unless we are fully satisfied that everything has been completely and comprehensively assessed, checked and controlled. Safety is our first priority because we are responsible for protecting both people and the environment; it is our health and safety performance that gives us our licence to operate. Without it, we would not be invited by our partner host governments to operate in their territory. They have to be sure that we are doing everything right."

In Senegal, the wells were drilled in deep water, meaning that the drilling team were dealing with equipment that had to descend more than 2,000 metres before even reaching the seabed.

"The drilling assemblies are full of sensors that send back data in real time," says Craig. "That way you understand the conditions so that you can manage the well and the fluid within it accordingly."

Each well begins with a foundation – a series of short lengths of steel tube casings which are around 36 inches in diameter. The well then gets progressively narrower as it drills further down, reaching around 8.5 inches as it reaches the hydrocarbon reservoir itself.

"The drill bit rotates and cuts the borehole down to the depth we require," he explains.

"The cut rock is removed to the surface by the fluid which is circulated round the well to maintain its condition, where it is analysed by our geologists and safely disposed of.

"We can manage the pressure in the fluid to match the pressure of the geology, so that when we encounter the reservoir, we can do so safely.

"That has always been our philosophy. Safety always comes first and unless everyone is satisfied that we are safe, we don't operate."

**"Safety is our first priority because we are responsible for protecting both people and the environment."**


Craig McGregor

## Working with local stakeholders to protect the environment – Keith Skinner

Wherever Cairn operates around the world, it begins with the same approach – a dual focus on operating safely and minimising our impact on the environment.

That's the primary responsibility of Keith Skinner, Cairn's senior environmental and social adviser. In Senegal, where Cairn has operated for four years, he oversees environmental and safety issues ranging from work on the rig itself to operations at Cairn's shore base in Dakar. In that time he has visited operations regularly.

"Every location is different, but we always work to the same strict standards which are based on international best practice and the regulations that are applied in the North Sea," he says.

"In Senegal, there are well developed regulations and a strong democratic process with a tradition of openness and consultation. We work with local people and learn from each other so that we were able to adapt to the local culture and collectively maintain the strictest industry standards.

"We work together to ensure that the respect for safety and for the environment is embedded from the start. The key for us is for everything we do to be safe, and sustainable over the long term."

The most recent, third, drilling campaign was delivered successfully, with zero lost work days due to Health, Safety or Environmental (HSE) incidents, and no reportable environmental issues across the five-well campaign.

Nor is it a case of imposing the company's views on the local community. "In everything we do there is an element of learning. We want to make sure that we keep on constantly improving."

**"We work together to ensure that the respect for safety and for the environment is embedded from the start."**

Keith Skinner

**Cairn in Senegal** continued
**Working in Senegal** continued

## Innovative approach to creating new standards of environmental leadership – Colin Lang

When Cairn embarked on its Senegal exploration campaign, one of the chief priorities was to minimise the impact on the environment. That included managing the tonnes of waste that results from drilling activity as efficiently and sustainably as possible.

"This was a major priority for us," said Colin Lang, a waste management and environmental supplier who has worked with Cairn since 2014, when he was tasked with creating and executing a waste management strategy.

"This was vital for Cairn as the company's policies direct us not to do anything that would impact the environment or health and safety. This is important on a drilling rig of course, but it is just as important when it comes to the local environment onshore. Our aim was to recycle or reuse as much waste as possible and reduce the total amount to an absolute minimum by working in collaboration with local suppliers.

"Offshore exploration is a new industry for Senegal so we had to identify areas where we could safely dispose of any waste, as well as find local partners to work with who had the ability to deliver work to high standards. We carried out an HSE training programme on the ground to make sure that everyone was able to work safely and effectively. Our ambition was to ensure that we left nothing behind, and that the environment was fully protected."

The waste from a drilling rig comes in many forms, from scrap metal and chemicals to waste water and domestic refuse that might come from any standard household or office environment.

"The most recent drilling campaign created around 400 tonnes of waste," said Colin, who worked with local suppliers to ensure they were able to separate the waste into its different components and be safely managed. The result was around 45% of waste was recovered or recycled and a further 31% going to energy recovery; only 1% went to landfill.

Over all three drilling campaigns only around 10% of the waste could not be treated within the country – mostly used drilling mud – which was exported for safe disposal elsewhere. Crucially, the remaining 90% of the waste was treated locally, ensuring that the local economy benefited from the resulting job creation.

"In many cases, this was a new initiative in Senegal, so I believe that our approach will help to form industry standards that will be used by the authorities when others conduct drilling campaigns after us," he said. "We will share our experience so that the industry can develop further in Senegal. That is one of the things that I am most proud of."

73 (See Case Study on page 73).

**"Our ambition was to ensure that we left nothing behind, and that the environment was fully protected."**

Waste recycling at our Dakar port supply base

## Making an impact locally – Julia Adamson

Julia Adamson has worked with Cairn since 2002, supporting the company's efforts to assess the social impacts of operations and planning and delivering community engagement programmes.

In Senegal, much of this has taken place through The Hunger Project (THP), a not-for-profit organisation that is committed to reducing hunger and poverty and has operated in the country since 1991.

Cairn started supporting THP's initiatives in its rural projects in 2015. The aim is to create sustainable community development projects through a holistic approach including developing social infrastructure, in the form of elected committees, and physical infrastructure in a central community building. This infrastructure then supports and coordinates programmes – many of them focused on women – in community health, nutrition, education, literacy, improved food production and storage, business skills training and savings facilities. But Cairn was keen to see how it could link social initiatives directly to operations. Julia says: "In 2015, Cairn acquired 3D seismic in areas close to the Senegal coast. It brought us into contact with artisanal fishermen, allowing us to understand the challenges faced by these communities and assess how oil and gas activities may impact them. A study identified how we could work with those coastal communities on issues that mattered, such as managing fishing stocks and providing food security."

By working with THP, Cairn has helped establish a pilot project that aims to support more than 20,000 people from seven coastal fishing village communities near Cairn's operations, through applying THP's tried and tested strategies in rural communities to a group of coastal communities.

She adds that the THP partnership is a demonstration of how Cairn aims to work in collaboration with local people. "We were looking to show that we can invest and become involved in a different way that benefits everyone. We found very clearly in Senegal that while the population is excited about the discovery of oil and the potential for economic development, of course they also wanted to make sure that it is carried out in a sensitive and appropriate way."

These projects are the result of many years of work. "This is not an add-on to our operations, it starts at the very beginning when we first consider any project or new venture. We look at potential risks and how we might mitigate those, what the social expectations are of our activity, and the impacts of that activity at both the social and economic level – not just during exploration but across the whole lifecycle of any project.

"It is a gradual process because we need to make sure it is sustainable and can grow naturally through the different phases of activity. This involves a lot of work, identifying everyone with an interest in our operations, or who may be affected, and working with the government, the local authorities, businesses and communities to identify potential concerns.

"For instance, ahead of our seismic operations in 2015, we began by speaking with the Ministry of Fishing to understand and respect their position. We then spoke with the fishermen themselves in their villages to explain our activities, how we would be operating, and what protocols we had in place. We established robust procedures for people to contact us with any matters they wanted to raise, and took care to publish them widely.

"At the same time, it is part of our mission to employ local people where possible. Because the language of the industry tends to be English, we worked with the government as well as the technical and scientific schools at the University of Dakar to establish English language programmes, so that students graduating with relevant skills will be able to benefit from the opportunities that a growing oil and gas industry in Senegal may provide."

Julia has visited regularly to see how the projects are progressing and has been pleased with the developments. "My last visit left me with an impression of a community mind-set that was changing; from living only for the present to a community starting to believe that they could plan for tomorrow and shape change in their own circumstances."

Julia Adamson

## Key Performance Indicators
## 2017

# 2017 Key Performance Indicators (KPIs)

Cairn has both financial and non-financial KPIs in place which are used to monitor progress in delivering the Group's strategy.

The 2017 KPIs, which were set out on page 37 of the Annual Report and Accounts 2016, related to delivering exploration and appraisal success, portfolio management, delivering operational excellence, maintaining licence to operate and delivering a sustainable business.

The final scoring of the 2017 KPIs was made at the Remuneration Committee meeting in March 2018 and subsequently approved by the Board.

**Strategic objective**

## Deliver exploration and appraisal success

| 2017 KPI and measurement | 2017 performance | KPI Remuneration Committee decision |
|---|---|---|
| **Successfully drill, evaluate and flow test appraisal wells on the SNE field safely and cost effectively to allow preparation of the Evaluation Report and update estimate of resources and capital required to develop the field.**<br>• Drill and test wells SNE-5 and 6 cost effectively and in a timely manner;<br>• Integrate data into subsurface models and refine the reservoir basis of design; and<br>• Update 1C, 2C and 3C Resources estimate, phasing of capital and valuations. | • The SNE-5 and 6 wells were delivered safely, ahead of schedule and under budget (-20% versus AFE);<br>• All data was integrated and has defined the first phase of the development;<br>• A resources audit was carried out at year end 2017; and<br>• The final phase of appraisal on SNE resulted in a slight narrowing of the 3C/1C ratio and a slight reduction of the 2C resource.<br>12 Read more: CEO's Review on P12-17 | **Partially achieved** |
| **Efficiently discover commercial hydrocarbons.**<br>• Develop an acreage retention strategy for Senegal; and<br>• Efficiently discover commercial quantities of hydrocarbons through maturation and drilling of select exploration and appraisal wells across the portfolio. | • An acreage retention strategy was developed in Senegal. Joint Venture support successfully obtained for additional contingent funds for drilling VR-1 exploration well, FAN South – 1 exploration/appraisal well, SNE North exploration well (all Senegal) and Druid/Dromberg (Ireland); and<br>• No commercial hydrocarbons were added in 2017.<br>12 Read more: CEO's Review on P12-17 | **Partially achieved** |

Strategic objective

## Portfolio management

| 2017 KPI and measurement | 2017 performance | KPI Remuneration Committee decision |
|---|---|---|
| **Develop an inventory and timeline of exploration and appraisal opportunities, including prospects and leads, which meet Cairn's technical and commercial criteria.**<br>• Secure or mature six or more new independent opportunities from within or outwith the portfolio that meet the business's investment criteria;<br>• Successfully integrate new licences and document a licence management plan for each; and<br>• Ensure the business holds sufficient (more than four) drillable/potentially drillable prospects by the year end | • Secured two blocks in the Mexico Licence Round 2.1. Matured new prospects (Maximon and Kukulkan) and delivered draft of the exploration plan to the joint venture;<br>• Completed two farm-ins in Ireland and acquired new 3D seismic;<br>• Completed one farm-in in Norway;<br>• Secured two new licences in the 2017 APA in Norway;<br>• Matured the Inca, Stjerneskudd and Lynhaug (and took over operatorship of Lynhaug) prospects in Norway for drilling and obtained joint venture approval;<br>• Awarded one block in the UK 29th Offshore Exploration Licence Round;<br>• Took over operatorship of Ekland in UK; and<br>• Licence management plans were developed. | **Fully achieved** |

12 Read more: CEO's Review on P12-17

Strategic objective

## Deliver operational excellence

| 2017 KPI and measurement | 2017 performance | KPI Remuneration Committee decision |
|---|---|---|
| **Successfully progress our development and production projects against key milestones including, as appropriate, capex, opex and sales volume targets.**<br>• **Catcher, UK**<br>Complete phase 1 drilling on the three reservoirs and satisfactorily conclude subsea scope and FPSO integration, commissioning and sail-away from Singapore to North Sea. | • **Catcher**<br>– Successful completion of phase 1 drilling by end of Q3 2017, fully commissioned FPSO departed Singapore on schedule in October 2017, first oil achieved in December 2017 and an oil marketing agreement finalised. | **Fully achieved** |
| • **Kraken, UK**<br>Achieve targets for first oil in April 2017, production volume targets, sales price received and opex costs targets. | • **Kraken, UK**<br>– First oil was achieved in June 2017. However, FPSO commissioning challenges resulted in production volume targets not being met as well as the opex target costs. One cargo lifting sold at >10% discount to Brent. | **Partially achieved** |
| • **Senegal**<br>Substantially mature the SNE project by agreeing the Evaluation Report, the contents of the draft Exploitation Plan, a gas management plan, and the final contract strategy with the JV and government of Senegal. | • **Senegal**<br>– Entered into an agreement with Woodside for development activities, developed a gas management plan, attained JV approval of the contracting strategy, prepared the Evaluation Plan and progressing the Exploitation Plan framework. | **Partially achieved** |
| • **Nova, Norway**<br>Ensure all internal reviews and supporting documentation are in place for final investment decision (FID) prior to Feb 2018. | • **Nova**<br>– Front-end engineering and design studies were completed and a draft Field Development Plan has been prepared by the operator for JV review. Commercial agreements in relation to the Gjoa tie-back in preparation. | **Partially achieved** |

**Key Performance Indicators** continued
**2017**

# 2017 Key Performance Indicators (KPIs) continued

Strategic objective

## Maintain licence to operate

| 2017 KPI and measurement | 2017 performance | KPI Remuneration Committee decision |
|---|---|---|
| **Achieve leading HSSE indicators linked to four categories within the Group's Corporate Responsibility Management System (Business Relationships, Society & Communities, People and the Environment).**<br><br>**Achieve lagging HSSE indicators linked to the International Association of Oil & Gas Producers (IOGP) benchmark data and guidelines.**<br><br>**Investing in People & Systems**<br>• Leading Indicators linked to our 4 key categories (Business Relationships, Society & Communities, People and the Environment) within our CRMS.<br>• Lagging indicators set in line with IOGP benchmark data & guidelines.<br>• Completion and assessment of the Management Training programme.<br>• Successful launch of new enterprise resource planning Platform. | • Good progress against leading indicators including revision of CRMS and development of new Code of Ethics;<br>• Training provided to all staff on bribery and corruption, modern slavery, human rights and cyber security;<br>• Developed an impact benefit strategy and successfully launched the Hunger Project community investment in Senegal;<br>• Completed a number of crisis and emergency response training exercises;<br>• Training programme completed for all staff with management duties;<br>• New enterprise resource planning system launched on schedule in August 2017;<br>• Achieved Total Recordable Injury Rate of 1.88 due to two minor medical treatment cases.<br>• No lost time or restricted workday cases; and<br>• Minor release of oil into the sea from ROV, not reportable to the regulator.<br><br>12 Read more: CEO's Review on P12-17 | **Substantially achieved** |

Strategic objective

## Deliver a sustainable business

| 2017 KPI and measurement | 2017 performance | KPI Remuneration Committee decision |
|---|---|---|
| **Develop and implement a funding strategy that allows a value generative plan to be executed and ensures a minimum headroom cushion from existing sources of funding is maintained.**<br>• Monthly and quarterly monitoring of Group liquidity in conjunction with bank covenants. | • Funding headroom was maintained throughout the year covering the Group's committed forward capital expenditure;<br>• Debt covenants were maintained with material headroom and strengthened through the year;<br>• The Group entered a hedging programme for Catcher and Kraken crude; and<br>• Good progress was made on securing additional sources of finance to support planned Nova and Senegal developments.<br><br>12 Read more: CEO's Review on P12-17 and Financial Review on P35-39 | **Fully achieved** |
| **Make tangible progress under the UK-India bilateral treaty arbitration.**<br>• Delivery against a set of milestone events including the Group's reply to India's statement of defence in preparation for the final hearing scheduled for Q1 2018. | • Successfully defended the Government of India's motion to stay and/or bifurcate the case;<br>• Maintained deadlines in the procedural timetable;<br>• The final arbitration hearing was delayed from January 2018 to August 2018; and<br>• Unsuccessful in recovering the dividends owed to Cairn which have been seized by the Indian Government.<br><br>12 Read more: CEO's Review on P12-17 and Financial Review on P35-39 | **Partially achieved** |

# 2018 Key Performance Indicators (KPIs)

The 2018 Group KPIs in the table below were approved by the Board in November 2017 and are based on the Group's current portfolio, prospects and objectives set out in the 2018 Business Plan. A KPI related to production and cash flow targets has been added for 2018.

**Strategic objective**

## Deliver exploration success

| Purpose | 2018 KPI | Risks to the achievement of KPI |
|---|---|---|
| **Mature prospects to drill ready status, secure funds and JV support for drilling and execute exploration drilling to deliver potentially commercial volumes.** | Mature six or more prospects with all internal reviews completed.<br>Drill four or more exploration wells before year end 2018.<br>Efficiently discover commercial quantities of hydrocarbons in line with pre-drill estimates at an attractive Group finding efficiency rate. | • Exploration and appraisal.<br>• Political and fiscal uncertainties.<br>• Reliance on JV operators for asset performance.<br>42 [See Risk Register Pages 42-47 for mitigants] |

**Strategic objective**

## Portfolio management

| Purpose | 2018 KPI | Risks to the achievement of KPI |
|---|---|---|
| **Portfolio optimisation and replenishment.** | Secure two or more new exploration opportunities that meet corporate hurdles and offer exploration drilling within five years. Measured against tests of control, commercial robustness and materiality. | • Securing new venture opportunities.<br>• Volatile oil and gas prices.<br>42 [See Risk Register **P42-47** for mitigants] |

**Strategic objective**

## Mature developments

| Purpose | 2018 KPI | Risks to the achievement of KPI |
|---|---|---|
| **Progress Senegal and Nova development projects.** | Mature the SNE Senegal development and funding plans for presentation to the Government of Senegal.<br>• Timely submission of the SNE Area Evaluation Report, Exploitation Plan and associated Environmental and Social Impact Assessment.<br>• Approval of the Exploitation Plan and associated Exploitation Area by the end of the PSC and finalisation and approval of joint venture financing plan.<br>Mature the Nova development project in Norway to Final Investment Decision.<br>• Submission of Plan of Development to Norwegian authorities in H1 2018 and all internal approvals in place to complete a Final Investment Decision and approve the Operator entering into acceptable contractual commitments on behalf of the joint venture during 2018. | • Delay in Senegal development plan.<br>• Reliance on JV operators for asset performance.<br>• Access to debt markets.<br>• Political and fiscal uncertainties.<br>42 [See Risk Register **P42-47** for mitigants] |

# 2018 Key Performance Indicators (KPIs) continued

Strategic objective

## Deliver operational excellence

| Purpose | 2018 KPI | Risks to the achievement of KPI |
|---|---|---|
| **Maximise revenues through efficient operations.** | Deliver target production volumes, operating costs and crude values from Kraken and Catcher at pre-determined levels. | • Kraken and Catcher operational and project performance.<br>• Reliance on JV operators for asset performance.<br>• Volatile oil and gas prices.<br>42 [See Risk Register P42-47 for mitigants] |

Strategic objective

## Maintain licence to operate

| Purpose | 2018 KPI | Risks to the achievement of KPI |
|---|---|---|
| **Deliver value in a safe, secure and environmentally and socially responsible manner.** | Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Business Relationships, Society and Communities, People and the Environment).<br>Achieve lagging HSSE indicators set in line with IOGP targets and guidelines. | • Health, safety, environmental and security.<br>• Fraud, bribery and corruption.<br>• Reliance on JV operators for asset performance.<br>42 [See Risk Register P42-47 for mitigants] |

Strategic objective

## Deliver a sustainable business

| Purpose | 2018 KPI | Risks to the achievement of KPI |
|---|---|---|
| **Manage balance sheet strength.** | Develop and implement a funding strategy that ensures that an executable funding plan is developed and that a minimum headroom cushion from existing sources of funding is maintained.<br>Success in the action under the UK – India bilateral treaty arbitration and progress achieved in recovery of any amounts awarded by the tribunal. | • Inability to secure or repatriate value from Indian interests.<br>• Political and fiscal uncertainties.<br>• Access to debt markets.<br>• Volatile oil and gas prices.<br>42 [See Risk Register P42-47 for mitigants] |

Financial Review
**James Smith, Chief Financial Officer**

# Sustainable production and cashflows

Cairn achieved first production from both Kraken and Catcher during the year with both fields expected to reach plateau by H2 2018. Cairn expects the JV to shortly sanction the Nova development in the Norwegian North Sea, where first oil is expected in 2021, and is progressing development planning in Senegal where first oil is targeted between 2021 and 2023. Together, these assets will provide long term sustainable production and cashflows which the Group will continue to deploy across its portfolio.

## Highlights of 2017

**Financial**

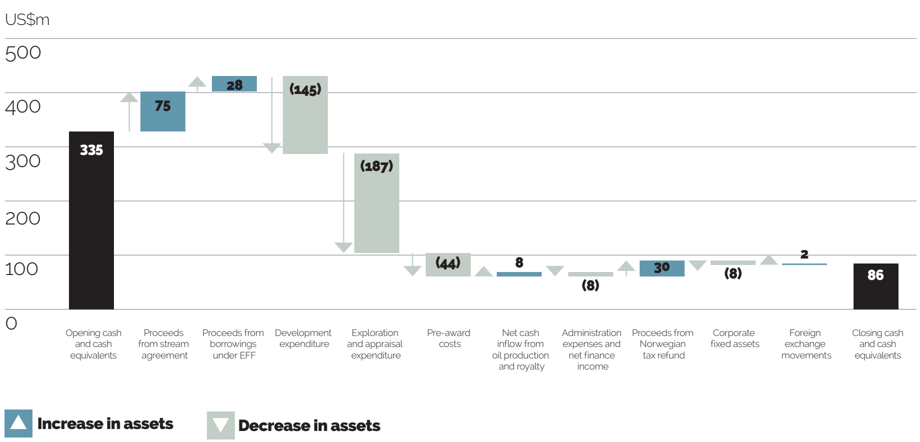
- Group cash at 31 December 2017 US$86m
- Reserves Based Lending (RBL) bank facility was undrawn at year end with expected peak availability of US$350-400m, of which US$200m was available at year end 2017
- Drawings under the Norway Exploration Finance Facility of US$30m
- Forecast Kraken and Catcher development expenditure for 2018 is ~US$140m* and currently committed E&A expenditure for 2018 is ~US$95m*
- Outstanding Norwegian exploration rebate receivables are US$38m at 31 December 2017

* Remaining cash outflows in respect of activities undertaken in 2017 of ~US$35m are included in these forecasts.

# **Financial Review** continued

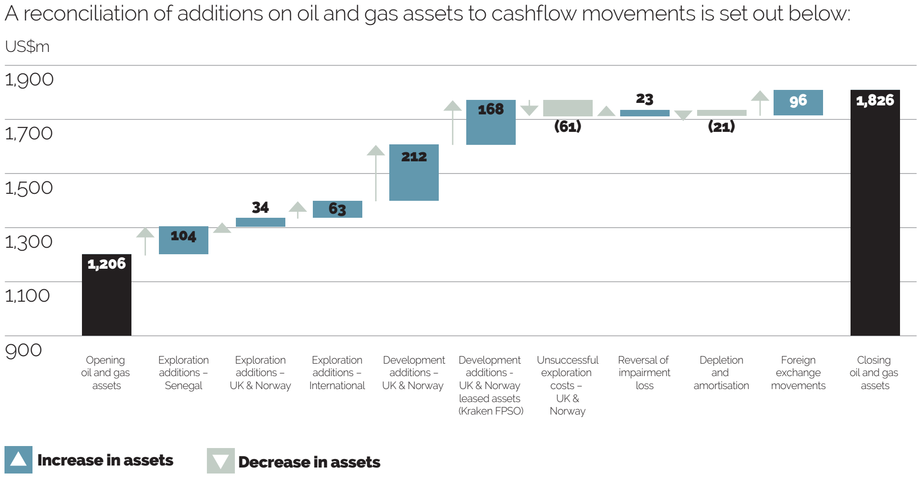
### Cashflow and liquidity

At 31 December 2017, Cairn held cash balances of US$86m, representing a net cash outflow of US$249m.




## Oil and Gas assets

A reconciliation of additions on oil and gas assets to cashflow movements is set out below:




| | Exploration/ Appraisal | | | | Development/ Producing |
|---|---|---|---|---|---|
| | Senegal US$m | UK & Norway US$m | International US$m | **Total US$m** | **UK & Norway US$m** |
| Additions | 104.2 | 33.7 | 63.1 | **201.0** | **381.0** |
| Working capital and provisions | (1.6) | (4.1) | (8.7) | **(14.4)** | **(71.3)** |
| Finance lease liability | – | – | – | **–** | **(169.7)** |
| Carried (non-cash) | – | – | – | **–** | **5.6** |
| **Cash outflow** | **102.6** | **29.6** | **54.4** | **186.6** | **145.6** |

Major cash outflows during the year arose on the continued spend on the Group's development projects of US$146m and exploration and appraisal spend of US$187m, of which US$103m related to Senegal. In addition, the Group spent US$44m on pre-award costs and new venture activities.

Cash flow from UK production and Mongolia royalty interests was US$8m. A further US$1m of interest relating to historic Mongolian royalty claims is included in finance income.

Cash administration costs were US$12m. This was offset by US$4m of net finance income, including the costs of shares purchased and finance lease refunds.

During 2017, Cairn agreed an Exploration Finance Facility (EFF) in Norway which allows the Group to borrow in advance of the tax refund due on qualifying exploration expenditure. By the year end US$30m had been drawn on the facility. The Group also received a tax refund in Norway of US$30m relating to qualifying exploration expenditure incurred in 2016. The other significant cash inflow was the US$75m received from the FlowStream streaming agreement.

The Group's RBL facility remained undrawn at the year end, with peak availability expected to be between US$350m and US$400m during 2018. Work is underway to include Nova within the borrowing base assets and amend the facility terms to increase availability.

Cairn has commenced a hedging programme in order to protect debt capacity and support committed capital programmes. To date, Cairn has hedged ~2m barrels of 2018 oil production using put and call options and collar structures with a weighted average floor and ceiling price of US$58.4/bbl and US$70.2/bbl respectively. The hedge instruments have been designated for hedge accounting where permissible under the accounting standards. The time value of the options is not designated as part of the hedged item and the mark-to-market movements of US$3m through the Income Statement are the only impact on the results for the year as the closing oil price remained above the floor and below the ceilings created.

**Exploration assets**

### Senegal

During the year, Cairn completed a further five exploration and appraisal wells in Senegal. The objective of this third phase of drilling was to better define the resource base in advance of submitting field exploitation plan to the Senegalese authorities in H2.

Cairn continues to carry the costs of all exploration and appraisal wells drilled to date. Total costs capitalised to date of US$434m, include US$342m directly relating to drilling activities with the balance incurred on related exploration activities. Additions in 2017 of US$104m included US$72m of drilling costs. The remaining spend included work on pre-development activities.

### UK & Norway

2017 saw significant progress in the UK & Norway region as the portfolio was re-shaped ahead of an exciting drilling programme in 2018/19. The first exploration well, the Tethys well in the Norwegian North Sea, commenced operations in December 2017. At least three further exploration wells are planned in 2018 with up to a further six in 2018/2019, subject to partner approval.

Significant progress has also been made on the planned development of the Nova discovery, with development plan submission targeted in the first half of 2018. Capitalised costs on Nova at 31 December account for US$90m of the UK & Norway total net book value of US$162m.

### International

In Ireland, Cairn completed the farm-in to the offshore FEL2/14 block prior to drilling the dual prospect 53/6-A well targeting the Druid and Drombeg prospects. The well was unsuccessful and costs of US$30m capitalised were subsequently written off.

In Mexico, the Group was awarded two blocks in the 2017 licencing round, Block 7 and Block 9, with exploration drilling planned from 2019.

Total costs capitalised at 31 December 2017 of US$23m relate to two further licences in Ireland and the two new blocks in Mexico. Costs relating to the Boujdour Maritime licence offshore Western Sahara and licences in Malta, totalling US$17m, have been written off following relinquishment of those licences.

**Development/producing assets**

### Kraken

Kraken development asset additions in the year of US$110m include a US$10m increase in decommissioning assets. On commencement of production in June, Cairn also recognised a right-of-use leased asset for the Kraken FPSO, recorded at a value equal to the finance lease liability.

The Kraken FPSO finance lease liability was initially recorded at a value of US$201m, equal to the present value of the minimum lease commitments due at the date of commencement of the lease. Subsequent to initial recognition, the terms of the lease were adjusted under an Interim Production Period agreement to allow the lessor to address operational issues with the vessel. During this period, the lease rate was wholly dependent on the performance of the FPSO with no minimum amount payable. Consequently, the lease asset and liability were reduced by US$36m to reflect this reduction in the minimum lease commitment. All lease costs that were incurred in the period relating to the Kraken FPSO of US$6m were therefore charged against profit as variable lease costs.

The closing carrying value of the right-of-use leased asset was US$174m after including a decommissioning provision of US$4m and accounting for depletion and exchange differences.

Remaining capital commitments on Kraken are US$81m to completion of the development asset and the lease liability at the year-end was US$170m. Impairment tests performed on the Kraken asset identified no impairment at the year end.

### Catcher

Additions in the year of US$103m include the final amounts carried by Dyas of US$6m following the 2015 farm-down. Decommissioning asset increases included in additions of US$19m reflect the work undertaken during the year. Remaining development commitments on Catcher to completion are US$85m.

Unlike Kraken, the Catcher FPSO has been classified as an operating lease, consequently no asset or finance liability has been recognised. The FPSO has a shorter lease term than that of the Kraken FPSO and it is considered unlikely that the joint operation will purchase the FPSO at the end of the lease contract. Under IFRS 16, effective 1 January 2019, Cairn will be required to reflect minimum lease commitments on the Catcher FPSO as a lease liability with a corresponding right-of-use asset being recognised at that time. Had IFRS 16 been applicable in the current year, Cairn would have recognised a right-of-use asset and a lease liability of US$177m on commencement of the lease.

Encouraging results from the testing of development wells drilled on Catcher indicate performance levels in advance of pre-drill expectations, leading to an increase in the 2P reserves booked on the asset at the year end. This reserves increase and improved production profile is incorporated into the fair value models, increasing the recoverable value of the asset in the impairment test.

The results of the impairment test conducted at the year-end indicate that the impairment of US$23m charged in prior years should be reversed in full and this credit has been recorded in the profit for the year.

**Results for the Year**

### Gross Profit

| Year ended 31 December 2017 | UK & Norway US$m | Other US$m | **Total US$m** |
|---|---|---|---|
| **Revenue** | | | |
| Oil sales | 19.9 | – | **19.9** |
| Release of deferred revenue | 3.0 | – | **3.0** |
| Royalty interest | – | 10.4 | **10.4** |
| | 22.9 | 10.4 | **33.3** |
| **Cost of sales** | | | |
| Production and lease costs | (22.3) | – | **(22.3)** |
| Inventory and underlift adjustments | 16.4 | – | **16.4** |
| | (5.9) | – | **(5.9)** |
| Depletion and amortisation | (20.8) | – | **(20.8)** |
| **Gross profit/(loss)** | (3.8) | 10.4 | **6.6** |

# Financial Review continued

**Available-for-Sale Financial Assets and Dividends Receivable**
The merger of Cairn India Limited (CIL) with Vedanta Limited (VL) completed in April 2017. Under the terms of the merger, Cairn received ordinary shares and preference shares in VL in exchange for the Group's residual ~10% shareholding in CIL. As a result, Cairn now has a shareholding of ~5% in VL, valued at US$1,072m at 31 December, including US$121m of redeemable preference shares. Cairn remains unable to access the value of this investment pending the outcome of its ongoing Indian tax dispute.

The merger of CIL with VL has resulted in a net gain of US$403m presented in the Income Statement. This comprises an accounting loss of US$33m on the difference in market value of the Group's holding in CIL and VL immediately before and after the merger, offset by the gain on derecognition of the CIL shares which led to a recycling of the surplus on valuation of the CIL shares held in equity of US$436m.

On the merger, a final dividend of US$52m was declared, bringing total amounts of dividends due to the Company to US$104m at the year end. Subsequent to the merger, the IITD seized the dividend income due to Cairn in partial settlement of the tax demand issued in relation to the Indian tax dispute. Cairn has therefore fully provided against the amounts receivable.

The IITD holds CUHL as an assessee in default in respect of tax demanded on the 2006 transactions, and as such has continued to pursue enforcement against CUHL's assets in India. To date these enforcement actions have included attachment of CUHL's shareholding in VL (valued at US$1.1 billion at year end) for potential sale, seizure of the US$104m dividends due to CUHL as described above, and offset of a US$249m tax refund due to CUHL in respect of another matter.

Cairn is seeking restitution under the UK India Bilateral Investment Treaty for losses resulting from the attachment of its shares in VL and failure to treat the Company and its investments fairly and equitably. Arbitral proceedings are well progressed and Cairn has a high level of confidence in its case. In addition to resolution of the retrospective tax dispute, Cairn's request for relief to the arbitration panel is seeking damages equal to the value of Group's residual shareholding in CIL in 2014 plus further assets seized since (approximately US$1.3 billion).

**Results for the Year**
**Profit/(loss) for the year**

| | Year ended 31 December 2017 US$m | Year ended 31 December 2016 US$m |
|---|---|---|
| **Gross Profit** | 6.6 | – |
| Pre-award costs | (43.8) | (17.7) |
| Unsuccessful exploration costs | (60.7) | (70.3) |
| Administrative expenses and other income/costs | (30.3) | (34.9) |
| Related tax credit | 30.4 | 13.2 |
| **Operational and administrative expenses** | (104.4) | (109.7) |
| **Net finance costs, excl. dividends** | 11.3 | (11.5) |
| Net gain on derecognition of financial asset | 402.6 | – |
| Dividends receivable | 52.4 | 8.2 |
| Provision against dividends receivable | (104.7) | – |
| Related tax charge | (27.7) | – |
| **Cairn India/Vedanta investment and dividends** | 322.6 | 8.2 |
| Reversal of impairment/(impairment) of oil and gas assets | 23.0 | (25.3) |
| Asset related tax credit | 4.0 | 43.3 |
| **Oil and gas asset impairment and tax credits** | 27.0 | 18.0 |
| **Profit/(loss) for the year** | 263.1 | (95.0) |

**UK North Sea revenue & gross profit**
During 2017 Cairn commenced production from its Kraken and Catcher North Sea fields. First oil from Kraken was delivered in June 2017, with gross production of ~2.5 mmbbls to the end of the year. Catcher first oil was achieved late December 2017 and volumes for the year were not significant. Daily production volumes in 2018 from both fields have steadily increased as production wells are brought on line and processing facilities are commissioned.

In the first half of the year, Cairn entered into a streaming agreement with FlowStream Thruer Limited ("FlowStream"). Under the agreement, Cairn received US$75m with FlowStream receiving an initial stream of 4.5% of Kraken production. FlowStream's share of production reduces in steps as the company achieves specified rates of return. The income from the stream agreement is treated as deferred revenue in the financial statements which is released to the profit or loss for the year in line with production volumes received by FlowStream. During 2017, US$3m of deferred revenue was released.

Crude sales from Kraken in the year totalled US$20m. This represents a single cargo of crude lifted by Cairn, with sales volumes of 386,000bbls (net of the FlowStream entitlement).

Cost of sales for the period include operating costs of crude produced plus marketing and transportation costs of crude sold. Also included are inventory and underlift adjustments. Differences between produced volumes and lifted volumes in the period are recorded in the financial statements either as inventory, where crude is held at the FPSO at the year end, or as underlift where JV partners have lifted more crude than their working interest entitlement. Inventory and underlift at the year-end totalled US$16m based on the year end closing Brent price.

Lease charges through cost of sales of US$7m include all lease payments made under the Kraken and Catcher FPSO charter agreements. The Kraken lease is classified as a finance lease however, as minimum lease commitments were reduced to nil, all payments were charged against profit. Once the Interim Production Period concludes, lease payments will be allocated to the lease liability for amounts equal to the minimum commitment with additional charges payable dependent on uptime of the vessel charged to production costs as variable lease payments. The Catcher FPSO lease is classified as an operating lease therefore all lease costs are charged directly to cost of sales.

Depletion and amortisation charges in the year of US$21m are calculated on a unit-of-production basis.

**Other revenue and gross profit**
During the year, Cairn received US$10m of royalty income relating to fields in Mongolia. Cairn's right to this royalty interest was retained under the terms of a historic sale of assets previously held by the Group. The current operators of the licences had disputed Cairn's right to royalty, however following international arbitration proceedings which concluded in 2016, Cairn's right to royalty was established and the calculation of royalty due agreed. Revenue recorded in the year represents royalty due to Cairn, from commencement of production from the fields in 2005, to the present date. Cairn will continue to receive royalty payments going forward though annual income is not expected to be significant.

**Pre-award costs**
During 2017, Cairn added 10 new licences to its exploration asset portfolio; 7 in the UK & Norway segment (3 as Operator), two new licences offshore Mexico and one offshore Ireland.

The work in advance of obtaining these new licences is reflected in the increased costs in the year to US$44m. This includes US$23m of seismic acquisitions in the UK & Norway and US$5m of costs in pursuit of new opportunities in countries where the Group held no interests at the year end.

**Unsuccessful exploration costs**
With the one unsuccessful exploration well drilled in the year and a further write-down of inventory, unsuccessful exploration costs relating to Ireland of US$35m was the largest component of the Group's charge. Other costs include US$18m on the relinquishment of licences in Western Sahara and Malta, within the International region, and US$8m on costs in the UK & Norway, where a number of licences were relinquished.

**Administrative costs and other income**
The Group's administrative charges ran at a level consistent with prior years with a charge of US$33m (2016: US$34m). Cairn incurred costs of US$8m (2016: US$7m) in relation to the ongoing arbitration under the UK-India Bilateral Investment Treaty.

**Taxation**
Taxable profit from the Group's income generated on production in the year was offset by available tax losses and as such no corporation tax was payable in the year.

The Group had a net tax credit of US$7m in the year, comprising a Norwegian current tax credit of US$40m and net deferred tax charges of US$33m across Norway, the UK and India.

The Norwegian current tax credit reflects the tax refunds receivable in respect of qualifying expenditure in the year.

The net deferred tax charge includes Indian deferred tax charges of US$28m that arise on financial assets and the accounting treatment of the merger of CIL and VL. Norwegian deferred tax charges of US$9m arise on capitalised exploration expenditure where current tax refunds have been claimed. A deferred tax credit in the UK of US$4m relates to costs on development assets settled through the carry from prior years.

At 31 December 2017, Cairn had total UK ring fence losses of US$1,010m. US$872m of losses are recognised as deferred tax assets (at the applicable UK tax rate of 40%) and fully offset deferred tax liabilities of US$349m. The remaining US$138m of losses are represented by an unrecognised deferred tax asset of US$55m.

Deferred tax liabilities of US$164m are recognised in respect of India and Norway. An Indian deferred tax liability of US$89m (2016: nil) relates entirely to the available for sale financial asset. The recovery in the Vedanta Limited share price during the year has reversed an unrecognised deferred tax asset into a deferred tax liability.

A Norwegian deferred tax liability of US$90m represents the temporary differences recognised in respect of costs incurred on assets held on the Balance Sheet in respect of which a full tax refund has been claimed. This liability is partially offset by a deferred tax asset of US$15m on Norwegian tax losses available at the year-end resulting in a net deferred tax liability of US$75m recorded at the year end.

# How We Manage Risk

**Managing business risks**
Managing risks and opportunities is integral to the delivery of the Group's strategic objectives. Cairn's risk assessment process is not designed to eliminate risk entirely, but provides a means to identify, prioritise and manage risks and opportunities in accordance with the Group's appetite for risk.

The Group's risk management framework provides a systematic process for the identification and management of the key risks and opportunities which may impact the delivery of the Group's strategic objectives. KPIs are set annually and determining the level of risk the Group is willing to accept in the pursuit of these objectives is a fundamental component of the Group's risk management framework. As outlined below, this integrated approach to the management of risk and opportunity plays a key role in the successful delivery of the Group's strategy.

**Risk governance**
Overall responsibility for the system of risk management and internal control and reviewing the effectiveness of such systems rests with the Board. Principal risks, as well as progress against key risk projects, are reviewed at each Board meeting and at least once a year the Board undertakes a risk workshop to review the Group's principal risks. This integrated approach to risk management has been and continues to be critical to the delivery of strategic objectives.

The Group's framework for risk management promotes a bottom-up approach to risk management with top-down support and challenge. The risk register is central to the risk management process and forms the basis for capturing and discussing risk throughout the organisation. Risks and opportunities are identified, assessed and managed at an asset (e.g. Senegal), project (e.g. new ventures opportunity) and functional level (e.g. HR team) and the risk and compliance team run quarterly risk workshops to discuss and challenge the risk registers. Reporting of these risks within the organisation is structured so that risks are escalated through various internal management, Board committees and to the Board itself.

## Group's risk management framework

**Outline the strategy**
Set a sustainable strategy to achieve Cairn's short and long-term goals.

**Define strategic objectives**
Set clear strategic objectives in the form of KPIs.

**Define risk appetite**
Determine the level of risk the Group is willing to accept in the pursuit of the strategic objectives and document this in the Group Risk Appetite Statement.

**Identify key risks**
Identify key risks and opportunities to the achievement of strategic objectives through discussions at a Board, Risk Management Committee, Management Team, Regional and functional level.

**Apply risk assessment process**
Apply the Group risk assessment process to ensure the ongoing management of key risks to our objectives.

**Deliver strategic objectives**
Delivery of strategic objectives through informed risk-based decision-making.

## Risk governance framework

**Top-down: Oversight, accountability, monitoring and assurance**

### The Board

Holds overall responsibility for the Group's risk management and internal control systems

Sets strategic objectives and defines risk appetite

Sets the tone and influences the culture of risk management

Completes robust assessment of principal risks

### Risk Management Committee

Executive Committee chaired by CEO in 2017

Responsibility for setting the direction for risk management

Facilitates continual improvement of the risk management system

### Audit Committee

Chaired by Iain McLaren in 2017

Monitors and reviews the scope and effectiveness of the Company's systems of risk and internal control

Reviews principal risks and output from the RMC meetings

### Management Team

Chaired by COO in 2017

Performs a quarterly 'deep-dive' review of the Group risk register

### Asset/Project/Function level

Risk identification, assessment and mitigation completed at asset, project and functional level

Risk management system embedded and integrated throughout the Group

Risk culture influencing all business activities

**Bottom-up: Identification of risks and mitigating actions for assets, projects and functions**

## Viability Statement

**Strategy, business model and context**
The Group's strategy and business model are described on page 04 of this report.

In 2017 the Group achieved first production from its two UK North Sea developments, Kraken and Catcher. Following the oil discovery offshore Senegal in 2014 and completion of appraisal in 2017, the Group is now focused on developing this significant resource base, targeting expected exploitation plan approval in 2018 with first production in 2021 to 2023. In Norway, sanction of the Nova development is planned for H1 2018 with first production anticipated in 2021.

Over the near to medium term, production from the Kraken and Catcher fields will generate significant operating cash flows which will, alongside borrowing facilities to support the development projects in Senegal and Norway, form the primary source of funding for the Group. The Group will continue to deploy these funds on both development opportunities and across the Group's wider exploration and appraisal portfolio.

**Assessment process and key assumptions**
The Group's prospects are assessed primarily through its annual business planning process. This process includes a Board strategy session, led by the Senior Leadership Team, at which the performance and prospects of the business are examined and capital allocation decisions are made. The outputs from the business planning include a set of Key Performance Objectives, the group risk matrix, the anticipated future work programme and a set of financial forecasts that consider the sources of funding available to the Group against the capital requirements of the anticipated future work programme (the base plan).

Key assumptions which underpin the annual business planning process include forecast oil and gas prices, forecast cost levels for oil and gas services and capital projects, production profiles of the UK North Sea production assets and the availability of debt under the Group's lending facilities.

The Board recognises that a significant part of the anticipated work programme is dependent on the results of future exploration or appraisal activity and also that it is the Group's strategy to actively manage its licence portfolio to optimise its planned capital allocation. Consequently, reflecting this inherent variability in the longer term work programme, the Board has determined that three years is the appropriate period over which to assess the Group's prospects.

**Viability**
The principal risks and uncertainties that affect the board's assessment of the Group's viability in this period are:

- performance of the UK North Sea producing assets;
- the effect of volatile oil prices on the business and our partners' financial position;
- the availability of debt to fund future development projects;
- restriction on ability to sell the Group's investments in India; and
- lack of exploration or appraisal success.

The base plan incorporates assumptions that reflect the impact of these principal risks as follows:

- material budget contingencies and allowances are included for development projects as well as appropriate delay assumptions;
- projected operating cashflows assume oil and gas prices in line with the current forward curve;
- whilst the resolution of the Indian tax dispute remains a strategic priority, the funding plan does not include monetisation of the Group's investments in India; and
- lack of exploration or appraisal success would impact on the delivery of Cairn's strategy but would not be expected to impact on the Group's ability to fund its committed work programme.

The Board also considers further scenarios around the base plan. These primarily reflect a more severe impact of the principal risks, both individually and in aggregate, as well as the additional capital requirements that would result from future exploration or appraisal success or the acquisition of new assets.

The directors consider the impact that these principal risks could, in certain circumstances, have on the company's prospects within the assessment period, and accordingly assess the opportunities to actively manage its licence portfolio and planned capital allocation as well as to bring in additional sources of funding at key milestones in asset development.

Based on the actions available to them, the directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the three-year period of their assessment.

**Responding to the changing risk environment in 2017**
As part of the Group's commitment to ensuring risk continues to be managed effectively, it seeks to continually improve our risk management system. As part of this, the following activities were completed in 2017:

- the Board completed a risk workshop to consider the current and future risks to the Senegal asset development;
- risk management training was rolled out across all assets and functions. The training coincided with the launch of a new risk management tool designed to support the risk management process;
- quarterly risk workshops were held with assets and functions to perform a more robust review of the significant risks to the Group;
- anti-bribery and corruption training was delivered to employees in higher risk roles;
- human rights, modern slavery and cyber security training was delivered to all employees;
- EY, the Group's internal auditor, delivered the annual internal audit plan which consisted of a number of risk areas identified from the risk register. Topics included the CRMS, human resources, procurement processes and reserves resources reporting. The Group has been working through the year to implement the identified improvements; and
- new legislation, the Corporate Offence of Failure to Prevent the Facilitation of Tax Evasion ("CCO") became effective in 2017. The Group held a workshop to assess the impact of the new legislation and to understand where any improvements to existing procedures were required in order to ensure compliance with the CCO requirements.

# How We Manage Risk continued
## Principal risks to the Group in 2017/2018

**Principal risks & uncertainties**
During 2017, through a number of internal forums such as the Group Risk Management Committee and Management Team, the Group reviewed the risks which could adversely affect the achievement of strategic objectives. The tables below provide a summary overview of the principal risks to the Group at the end of 2017, the potential impacts, the mitigation measures, the risk appetite and the KPIs or strategic objectives the risks may impact.

Strategic objective

## Deliver exploration and appraisal success

### Principal risk: Exploration and appraisal

Owner: Director of Exploration

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017. |
| Risk appetite | High – Exposure to exploration and appraisal failure is inherent in accessing the significant upside potential of exploration projects and this has been, and remains, a core value driver for Cairn. The Group invests in data and exploits the strong experience of Cairn's technical teams to mitigate this risk. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Limited or no value creation<br>Failure of the balanced portfolio business model<br>Negative market reaction | • Active programme for high-grading new areas through licence rounds, farm-ins and other transactions.<br>• Portfolio of prospects and leads that offer opportunities with a balance of geological and technical risks.<br>• Highly competent team applying a thorough review process of prospects and development opportunities and a team of geoscientists with a track record of delivering exploration success.<br>• Establishment of Exploration Leadership Team to undertake peer reviews and assurance. | • Exploration drilling did not add commercial hydrocarbons in 2017 and appraisal did not add to the resource base. | • Mature six or more prospects with all internal reviews completed.<br>• Drill four or more exploration wells before year end 2018.<br>• Efficiently discover commercial quantities of hydrocarbons in line with pre-drill estimates at an attractive Group finding efficiency rate. |

### Principal risk: Volatile oil and gas prices

Owner: Chief Financial Officer

| | |
|---|---|
| 2017 movement | No change – Although oil prices have improved during the year, oil price outlook remains volatile. |
| Risk appetite | Medium – Exposure to commodity prices is fundamental to the Group's activities; however, the Group manages its investment programme to ensure that a threshold economic return is delivered and the business model is funded even in sustained downside price scenarios. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Reduction in future cash flow<br>Value impairment of development projects<br>JV partner capital constraints | • Sensitivity analysis conducted to assess robustness of group financial forecasts for funding plan.<br>• Operators' cost initiatives delivering material cost reductions on development projects.<br>• Exploration projects are ranked based on the probability of commercial hydrocarbons and success case break even oil price.<br>• Hedging programme commenced. | • Debt available under the Group's RBL facility remains at a level consistent with the end of 2016.<br>• The Group has entered a hedging programme for Catcher and Kraken crude. | • Develop and implement a funding strategy that ensures an executable funding plan is developed and a minimum headroom cushion from existing sources of funding is maintained. |

Strategic objective

# Portfolio management

## Principal risk: Securing new venture opportunities

Owner: Director of Exploration

| | |
|---|---|
| 2017 movement | Decreased – This risk decreased in 2017 due to the Group's success in securing new ventures. |
| Risk appetite | Medium – Building and maintaining a balanced portfolio of current and future exploration, development and production assets is core to the Group's strategy. New opportunities must first meet the Group's strict investment criteria and successfully securing them will be dependent on the prevailing competitive environment. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Failure to replenish the portfolio<br>Inability to replace production decline curves<br>Loss of investor confidence | • Geoscience, new ventures and commercial teams work closely to review and identify new portfolio opportunities.<br>• Experience and knowledge throughout the organisation in recognising prospective opportunities.<br>• Risk assessments and due diligence process undertaken on all potential new country entries.<br>• Development of discretionary capital allocation and opportunity ranking system. | • Successfully secured two licences in Mexico Offshore Bid Round including one as Operator.<br>• Secured two farm-ins to licences in Ireland and one farm-in in Norway.<br>• Awarded non-operated interests in four licences in the Norwegian Sea and North Sea following APA 2017 awards in January 2018. | • Secure two or more new exploration opportunities that meet corporate hurdles and offer exploration drilling within five years. |

Strategic objective

# Deliver operational excellence

## Principal risk: Delay in Senegal development plan

Owner: General Manager, Senegal

| | |
|---|---|
| 2017 movement | New risk. |
| Risk appetite | Medium – Developments are commonly subject to cost impacts and schedule delays. The Group therefore has a medium appetite for risk taking in the development stage. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Loss of asset value<br>Project delays<br>Negative market reaction | • Ongoing engagement with Senegal Government.<br>• Ongoing engagement with JV partners and other stakeholders.<br>• Development of joint venture funding plan.<br>• Integrated transfer of operatorship plan agreed with Woodside. | • SNE field appraisal and concept select definition are concluding for the first phase of development of the extensive resource base.<br>• The JV aims to have a government-approved exploitation plan in place by the end of 2018 with a target of first oil in 2021-2023. | • Timely submission of the SNE Area Evaluation Report, Exploitation Plan and associated Environmental and Social Impact Assessment.<br>• Approval of the Exploitation Plan and associated Exploitation Area by the end of the PSC and finalisation and approval of joint venture financing plan. |

# How We Manage Risk continued
## Principal risks to the Group in 2017/2018

**Strategic objective**

## Deliver operational excellence continued

### Principal risk: Kraken and Catcher operational and project performance

Owner: Chief Operating Officer

| | |
|---|---|
| 2017 movement | No change – Whilst there were some operational challenges in Kraken commissioning, both Kraken and Catcher successfully achieved first oil in 2017. |
| Risk appetite | Low – Delivering operational excellence in all the Group's activities is a strategic objective for the Group and the Group works closely with all JV partners to mitigate the risk and impact of any operational delay or underperformance. Therefore, the Group has a low appetite for risks which may impact on operating cash flow. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Delay or reduction in cash flow<br>Increased operational costs<br>HSE incident<br>Reputational damage | • Work closely with the operator's to deliver risk mitigation plans and project solutions during ongoing commissioning.<br>• Positive and regular engagement with operators and partners to share knowledge, offer support and exert influence. | • Kraken achieved first oil in June 2017. Kraken commissioning challenges meant that production levels were lower than initially projected.<br>• Catcher FPSO completed commissioning in Singapore and arrived in the North Sea in August 2017 on schedule. First oil was successfully achieved in December 2017. | • Deliver target production volumes, operating costs and crude values from Kraken and Catcher. |

### Principal risk: Reliance on JV operators for asset performance

Owner: Chief Operating Officer

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017. The Group was successful in securing operated exploration licences in Mexico and Ireland and is due to drill its first operated well in the UK. |
| Risk appetite | Medium – The Group seeks to operate assets which align with the Group's core areas of expertise, but recognises that a balanced portfolio will also include non-operated ventures.<br>The Group accepts that there are risks associated with a non-operator role and will seek to mitigate against these risks by working with partners of high integrity and experience and maintaining close working relationships with all JV partners. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Cost/schedule overruns<br>Poor performance of assets<br>HSE performance<br>Delay in first oil from development projects<br>Negative impact on asset value | • Actively engage with all JV partners early to establish good working relationships.<br>• Actively participate in technical meetings to challenge, apply influence and/or support partners to establish a cohesive JV view.<br>• Application of the Group risk management processes and non-operated ventures procedure.<br>• Active engagement with supply chain providers to monitor performance and delivery. | • Oil price volatility continues to have a financial impact across the industry and the risk remains that the Group's JV partners may not be able to fund work programme expenditures and/or reprioritise projects.<br>• Catcher, Kraken and several exploration projects are operated by joint venture partners. Woodside will become operator of our Senegal asset on submission of the exploitation plan. The Group continues to work closely with a number of other partners in the UK & Norway and International regions. | • Deliver target production volumes, operating costs and crude values from Kraken and Catcher.<br>• Achieve lagging HSSE indicators set in line with IOGP targets and guidelines. |

Strategic objective

# Maintain licence to operate

## Principal risk: Health, safety, environment and security

Owner: Chief Executive

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017 due to continued strong HSSE performance. |
| Risk appetite | Low – The Group continuously strives to reduce risks that could lead to an HSSE incident to as low as reasonably practicable. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Serious injury or death<br>Environmental impacts<br>Reputational damage<br>Regulatory penalties and clean-up costs | • Effectively managing health, safety, security and environmental risk exposure is the first priority for the Board, Senior Leadership Team and Management Team.<br>• HSE training is included as part of all staff and contractor inductions.<br>• Detailed training on the Group's Corporate Responsibility Management System (CRMS) has been provided to key stakeholders to ensure processes and procedures are embedded throughout the organisation and all operations.<br>• Process in place for assessing an operator's overall operating and HSE capabilities, including undertaking audits to determine the level of oversight required.<br>• Effective application of CRMS in projects.<br>• Crisis and emergency response procedures and equipment are maintained and regularly tested to ensure the Group is able to respond to an emergency quickly, safely and effectively.<br>• Third party specialists in place to assist with security arrangements and travel risk assessments.<br>• Leading and Lagging indicators and targets developed in line with industry guidelines and benchmarks.<br>• Findings from "Lessons learned" reviews are implemented from other projects. | • The Group's safety performance has been effective overall in 2017 and achieved a Total Recordable Injury Rate (TRIR) of 1.88. The Group's target was less than 2.0 per million hours.<br>• Approximately 34 litres of hydraulic oil were released into the sea from a remote operated underwater vehicle.<br>• With ongoing operations in a number of countries in 2018, the Group will continue to work responsibly as part of our strategy to deliver value for all stakeholders. | • Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Business Relationships, Society and Communities, People and the Environment).<br>• Achieve lagging HSSE indicators set in line with IOGP targets and guidelines. |

# How We Manage Risk continued
## Principal risks to the Group in 2017/2018

**Strategic objective**

## Maintain licence to operate continued

### Principal risk: Fraud, bribery and corruption
Owner: Chief Executive

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017 due to no reportable instances of fraud, bribery or corruption. |
| Risk appetite | Low – Cairn is committed to maintaining integrity and high ethical standards in all of the Group's business dealings. The Group has no tolerance for conduct which may compromise its reputation for integrity. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Fines<br>Criminal prosecution<br>Reputational damage | • Business Code of Ethics and bribery and corruption policies and procedures.<br>• Due diligence process and questionnaire developed for assessing potential third parties.<br>• Annual training programme for all employees, contractors and selected service providers.<br>• Financial procedures in place to mitigate fraud. | • The Group was awarded licences in new countries deemed high risk for bribery and corruption. A compliance programme will be implemented for each area of operation. | • Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Business Relationships, Society and Communities, People and the Environment). |

**Strategic objective**

## Deliver a sustainable business

### Principal risk: Inability to secure or repatriate value from Indian assets
Owner: Chief Financial Officer

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017 due to the continued restriction on the Group's assets in India. |
| Risk appetite | Medium – The Group faces an uncertain macroeconomic and regulatory environment in some countries of operation. The Group is willing to invest in countries where political and/or fiscal risks may occur provided such risks can be adequately managed to minimise the impact where possible. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Loss of value | • International arbitrational panel in place.<br>• Timetable for final hearing has been agreed by Cairn, India and the tribunal.<br>• Continued engagement with the Indian Government.<br>• Committed work programme is fully funded from existing sources of funding, principally Group cash and committed debt facilities. | • Restriction on monetising assets in India remains in place.<br>• Successfully defended the Indian Government's motions to stay and/or bifurcate the case.<br>• Unsuccessful in recovering the dividends owed to Cairn which have been seized by the Indian Government.<br>• Final hearing dates have been postponed to August 2018. | • Success in the action under the UK – India bilateral treaty arbitration and progress achieved in recovery of any amounts awarded by the tribunal. |

## Principal risk: Political and fiscal uncertainties

Owner: Chief Financial Officer

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017. |
| Risk appetite | Medium – The Group faces an uncertain macroeconomic and regulatory environment in some countries of operation. The Group is willing to invest in countries where political and/or fiscal risks may occur provided such risks can be adequately managed to minimise the impact where possible. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Loss of value<br>Uncertain financial outcomes | • Operate to the highest industry standards with regulators and monitor compliance with the Group's licence, Production Sharing Contract and taxation requirements.<br>• External specialist advice consulted on legal and tax issues as required.<br>• Maintain positive relationships with governments and key stakeholders.<br>• Ongoing monitoring of the political and regulatory environments in which we operate. | • Cairn continues to source new opportunities globally and this can be in jurisdictions deemed at higher risk of political or fiscal uncertainty.<br>• The Group acquired new licences in Ireland and Mexico in 2017. The Group will strive for full compliance with licence, Production Sharing Contract and taxation requirements across all assets. | • Develop and implement a funding strategy that ensures that an executable funding plan is developed and that a minimum headroom cushion from existing sources of funding is maintained. |

## Principal risk: Access to debt markets

Owner: Chief Financial Officer

| | |
|---|---|
| 2017 movement | No change – This risk remained static in 2017. |
| Risk appetite | Low – The Group seeks to develop and implement a funding strategy that allows a value generative plan to be executed and ensures a minimum headroom cushion from existing sources of funding is maintained. |

| Impact | Mitigation | 2017 changes | 2018 KPI objectives |
|---|---|---|---|
| Work programme restricted by reduced capital availability<br>Loss of value | • Committed work programme is fully funded from existing sources of finance, principally existing cash balances, operating cash-flows and debt funding.<br>• Disciplined allocation of capital across portfolio.<br>• Continue to assess other forms of financing and pursue release of Indian assets. | • Debt available under the Group's RBL facility remains at a level consistent with the end of 2016.<br>• Both the Senegal and Nova developments will be partially funded through new or expanded debt facilities.<br>• The Group has entered a hedging programme for Catcher and Kraken crude.<br>• A number of financial institutions and investors have recently made policy decisions to exit oil and gas sector investment. To date, this has not affected Cairn but if this trend accelerates there could be a future impact. | • Develop and implement a funding strategy that ensures that an executable funding plan is developed and that a minimum headroom cushion from existing sources of funding is maintained. |

Working Responsibly
Introduction

# Working responsibly

As one of Europe's leading independent oil and gas companies, we recognise the importance of working in the interests of all our stakeholders. As such we are committed to transparently reporting our activities and performance on Corporate Responsibilities (CR).

Cairn's Strategic Objectives are developed by the Board and these set our direction for any given year against the background of our long-term Company strategy. We continue to review, understand and mitigate the risks to our business at both a strategic and tactical level whilst demonstrating our commitment to our CR policies and principles.

Transparent and responsible working helps us protect our people, the communities and the environment in which we work. In doing so we secure further opportunities to deliver value to our stakeholders. This is part of our 'licence to operate'.

The significance of our stakeholders' position on CR matters in relation to our business continued to be a focus in 2017 both in the Key Performance Indicators (KPIs) and in our specific CR Objectives for the year which we again grouped under these four themes: Business Relationships; Society and Communities; People; and Environment.

These four themes consist of 15 key issues (see page 50) and are used to help determine our CR Objectives for a given year under the 'licence to operate' strategic objective. In 2017 the CR Objectives formed 17% of our overall performance KPIs (see our review of CR Objectives performance). The emphasis of the CR Objectives is strongly influenced by those issues considered material in our materiality assessment, described below. Proposed CR Objectives are reviewed and approved by the Board and tracked through the year by the Board and the Management Team.

**Stakeholder engagement through the year**
We invest considerable time engaging with stakeholders through the year. This ranges from explaining our position and performance to investors and shareholders, to presenting at conferences and participating in industry bodies on good practice. We engage with stakeholders as part of our impact assessments and our management plans. It also includes responding to concerned parties on specific issues. The variety of topics is wide and in 2017 included: Company strategy, financial position, human rights, modern slavery and climate change.

**Example:** **Our Senegal General Manager gave one of the keynote speeches at the MSGBC Summit in Dakar in November, for which we were one of the headline sponsors. The summit was attended by the Energy Minister of Senegal and around 250 delegates from several West African nations and the international oil industry.**

**Stakeholder engagement in our projects**
New and existing projects are subject to specific procedures to ensure we understand and engage stakeholders in a positive way. This helps us understand issues and risks enabling effective communications through the project and oil and gas life cycle. To do this we develop Public Consultation and Disclosure Plans (PCDPs) that are updated regularly to ensure changes to the project and stakeholder expectation and sentiment are taken into account.

PCDPs identify stakeholder concerns and issues, the materiality of issues and the associated risks to the business. This enables us to identify actions to mitigate those risks which form part of the PCDP. Stakeholder engagement plans are bespoke to each project.

**Example:** **As part of our new country entrance process in Mexico in 2017 we performed a review of stakeholders to assist in developing a stakeholder PCDP during 2018.**

**For our activities in Senegal we implemented a PCDP at country entry in 2013 that we have kept up to date during our subsequent exploration and appraisal drilling programmes. We have also shared this with our joint venture partner in order to develop a joint approach to engaging stakeholders as we plan development of the field. We hold regular meetings to discuss progress and review the outcome of any engagement activities.**

## Stakeholder engagement in 2017

### Our material issues

Our stakeholder engagement model follows the principles of 'Materiality', 'Inclusivity' and 'Responsiveness' as defined in AccountAbility's AA1000 Accountability Principles Standard (AA1000 APS). AccountAbility is a global organisation providing solutions to challenges in CR and sustainable development. This ensures that we engage with internal and external stakeholders, identify and assess our most important CR issues, and address and respond to them in a structured way.

In 2017 we have again assessed our material issues, based on both the Group risk registers and their importance to stakeholders, using defined criteria for 15 specific issues. These issues are derived from IOGP[1], UN Sustainable Development Goals and GRI[2] international reporting requirements. Each of these 15 issues has linked sub-issues (see graphic on page 50), each of which was ranked to indicate its level of importance to Cairn and to stakeholders (high, significant, medium, low, insignificant).

This year, as in 2015, we engaged with a representative group of stakeholders to gain feedback on our assessment of material issues. This group included: an investor; two business partners/peers; a major international contracting company; an NGO representing community interests; employees selected from our UKN, Senegal and International regional assets; two industry associations; an academic institution; and an environmental NGO.

The feedback from these stakeholders was used to quality assure the stakeholder position of issues placed on our materiality matrix. Where comments from more than one stakeholder indicated a change in position we adjusted the issue position on the matrix.

Read more in our **Annual Corporate Responsibility Report**

The materiality process is discussed in more detail with feedback from stakeholders in our CR report available on our website **https://www.cairnenergy.com/working-responsibly/creating-value/**

1 International Association of Oil and Gas Producers (IOGP) – http://www.iogp.org/
2 Global Reporting Initiative (GRI) – https://www.globalreporting.org/Pages/default.aspx

## Materiality assessment results 2017

Our materiality results appear in the graphic below.

- High materiality
- Medium materiality
- Low materiality

We identified nine issues of high or significant importance to both Cairn and stakeholders that were considered to have high materiality. These issues are analysed in detail in this Working Responsibly section.

Our graphic shows the position of our 15 issues. We discuss the observations made by our stakeholders in more detail in our CR report on our website.

| Importance to Cairn \ Importance to Stakeholders | Insignificant | Low | Medium | Significant | High |
|---|---|---|---|---|---|
| High | | | | Economics and Funding | |
| Significant | | | Health and Well-being<br>Communities | Ethics, ABC and Transparency<br>Security<br>Social and Economic Benefit<br>Human Rights | Major Accident Prevention and Safety<br>Contractors and Supply Chain |
| Medium | | | Employees<br>Equality and Diversity<br>Resource Use | | Climate Change, Emissions and Discharges<br>Biodiversity |
| Low | | Product Stewardship | | | |
| Insignificant | | | | | |

# **Working Responsibly** continued
## Our Corporate Responsibility Priorities

# 15 potential material issues; 9 were found to be of high materiality

The fifteen potentially material issues are listed below, grouped into the four themes.

## Business Relationships

### Economics and Funding — H
- Funding
- Investment
- Reserves valuations and capital expenditures

### Contractors and Supply Chain — H
- Culture and leadership
- Selection
- Competency, training and education

### Ethics, ABC and Transparency — H
- Principles, policies, CRMS
- Risk & material issues
- Strategy & ops
- Accountability & responsibility
- Advocacy and lobbying
- Cairn Anti-Bribery and Corruption practices
- Contractors and suppliers
- Government and authorities
- Whistleblowing
- Communications
- Remuneration
- Tax and payments to government
- Fines & prosecutions
- Non-operated joint ventures and international investments

## Society and Communities

### Social and Economic Benefit — H
- Shared value
- Benefits & impacts to communities
- Local content
- Social investment
- Government relations

### Human Rights — H
- Working conditions/T&Cs
- Freedom of association
- Modern slavery/security
- Complicity
- Grievance
- Non-discrimination

### Communities — M
- Local community
- Stakeholders
- Indigenous peoples
- Local labour
- Community health
- Cultural heritage
- Displacement

## People

### Major Accident Prevention and Safety — H
- Asset integrity
- Major accident prevention
- Major oil spill prevention
- Workplace Safety

### Security — H
- Office
- Personnel
- Local assets
- Travel
- Cyber security

### Health and Well-being — M
- Workplace health
- Infectious diseases
- Well-being and health support

### Employees — M
- Culture and leadership
- Selection
- Succession
- Workforce planning

### Equality and Diversity — M
- Anti-discrimination
- Equal pay
- Equal opportunities and diversity

## Environment

### Climate Change, Emissions and Discharges — H
- Energy use and alternative sources
- Greenhouse Gases (GHGs)
- Other emissions
- Flaring & venting
- Strategic carbon risk
- Discharges/disposals to water and land
- Spills
- Reuse. recycle and waste management
- Stranded assets

### Biodiversity — H
- Environmental Social Impact Assessment (ESIA)
- Environmental Surveys & Ecosystem Services
- Biodiversity Action Plans

### Resource Use — M
- Water abstraction and use
- Local resources
- Materials

### Product Stewardship — L
- Oil and gas sales and impacts

**Materiality significance (see page 49)**

**Key:**

H High
M Medium
L Low

# Business Relationships

## Material issue 1 of 9: **Economics and Funding**

Success in this area directly contributes to deliver against the following

### Strategic Objectives

- **Deliver exploration and appraisal success**
- **Portfolio management**
- **Deliver a sustainable business**
- **Maintain licence to operate**
- **Deliver operational excellence**

04 Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these

### Principal Risks

Shown below

- **Kraken and Catcher operational and project performance**
- **Delay in Senegal development plan**
- **Securing new venture opportunities**
- **Volatile oil and gas prices**
- **Inability to secure or repatriate value from Indian investments**
- **Reliance on JV operators for asset performance**
- **Health, safety, environment and security**

40 Read more: Risk Management on P40-47

How we performed against our

### CR Objectives 2017

**Strengthen link between CRMS and business risk management**

- We reviewed our CR policies and introduced a Corporate Major Accident Prevention Policy (CMAPP).
- We integrated our Code of Business Ethics with our Business Principles for a new Code of Ethics; this was published for the first time.
- We presented to the Board how the CRMS and the Cairn Operating Standards (COS) work together to manage risk.

**Improve CR risk register**

- We revised our risk register process and improved quarterly CR risk updates.
- We further integrated the CR risk register with other business risks for regular review by the Management Team and the Board.

**Annual CRMS audit**

- Our annual internal audit programme looked at application of the CRMS with only 2 minor findings.
- We discussed with the Board how CR issue management is assured and audited.

**Enhance CR content of Investment Proposals (IPs) and support new ventures**

- All our IPs were reviewed and signed off by department heads.
- We increased our scrutiny of modern slavery and climate change issues and included these issues in our IPs.
- We implemented a checklist of CR issues for use in IP preparation.
- We supported our New Ventures team successfully during our new country entry into Mexico.

### Economic contribution

Cairn has a commitment to making a positive contribution, wherever we operate, by delivering tangible benefit to our stakeholders, including:

- host governments, which grant us our permits and licences to operate;
- host societies and communities that give us our social licence to operate; and
- employees, contractors and suppliers, who provide the expertise and resources that we need to carry out our activities and create value.

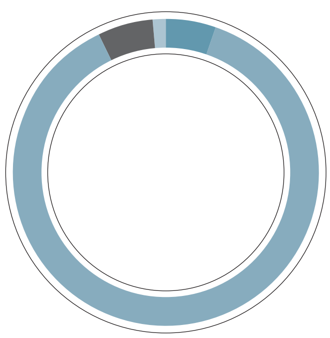
We distribute value through:

- payments to governments, including taxes, duties and other payments such as licence fees;
- payments to promote social and community development in our host countries;
- payments to our contractors and suppliers;
- payments to our employees; and
- payments to those who provide us with capital.

# **Working Responsibly** continued
## **Our Corporate Responsibility Priorities** continued

## **Business Relationships** continued
### Material issue 1 of 9: **Economics and Funding** continued

**Total value distributed by Cairn business in 2017**



- Governments (Taxes, fees etc.) US$36.1 million[1]
- Communities (Social investment) US$238,769
- Contractors and suppliers (Capital spend) US$592.7 million[2]
- Employees (Staff costs) US$39.7 million[3]
- Investors (Dividends, interest, bank charges, repayments etc) US$7.9 million[4]

1 Refunds from governments, in 2017, were US$37.6 million.
2 Net share across the Group.
3 Excludes share-based payment charges which are non-cash.
4 In 2017, no dividends were paid. Cairn realises value by progressing development assets through to production and/or realising value through asset sales, and either reinvesting the proceeds into the business, to fund exploration and development activity or returning cash to shareholders. Finance costs included those associated with drawing on the Exploration Finance Facility (EFF) in Norway and charges associated with maintaining the Group's Reserve Based Lending facility. In 2017, the Group's exploration business remained fully funded.

**Increasing standards in a challenging business environment**
In 2017 we recognised that the increasing pressure on our industry to improve standards of operation within the challenging business environment continued. Our industry faces an ongoing increase in the standards we must apply, whilst continuing to focus on cost efficiency. Volatile oil price continues to be one of our principal risks which means the business remains focused on efficient capital allocation across the portfolio. It is important that cost reductions do not compromise our commitment to working responsibly.

The level of detail in requests from analysts, shareholders and funding institutions regarding the CR standards we use and performance we achieve, continues to rise. This includes our reporting and transparency requirements (see Ethics, ABC and Transparency). To maintain our 'licence to operate' we must track and apply latest good practice in the way we do business.

We participate in industry bodies such as the International Association of Oil & Gas Producers (IOGP). This enables us to ensure we are aware of the latest developments in good practice and translate them into our CRMS for application at a corporate level and locally in our projects. During 2017 we initiated actions to further integrate our CRMS into our day-to-day business activities. This included a more concise Code of Ethics (the Code), which integrated our previous Code and our long-standing Business Principles. We published this wider Code externally in an accessible format for the first time in December.

Our risk management system was improved during the year. This included ensuring routine department and asset risk reviews were held on a quarterly basis prior to the aggregated risk register being reviewed by the Management Team. In December, our Board held its detailed review of the risk register and developed strategies to realise value for shareholders and stakeholders from our portfolio.

In September the Board requested a review of how our business management system integrates the CRMS within projects and how it links with the Cairn Operating Standards (COS). This was presented in October. The Board satisfied itself that the CRMS was fit for purpose and appropriate controls were in place to protect our licence to operate.

Ernst & Young also conducted an internal audit of our CRMS which had two findings: one medium-rated to improve the management of potential CR risks which fall outside the Project Delivery Process; and one low-rated to improve reporting of progress of our CR objectives. Actions were set in place to address these.

**CRMS standards and improvements in our projects**
During our Senegal drilling programme in 2017, we improved our management of CR risks and managed to reduce costs compared to previous campaigns. This was achieved not only with effective rig and equipment selection in late 2016, but also with strong consistent CR leadership from our management and our contractors during the campaign. Our operational safe systems of work were improved in Senegal by holding monthly contractor meetings in Dakar (see Contractors and Supply Chain).

Development planning in Senegal commenced with our partners in January and continued throughout the year.

Whilst seeking to maximise value from the project for the joint venture and Government of Senegal by achieving low development costs, it is important nevertheless to maintain our high CR standards. Increasingly providers of capital want to ensure that the highest CR standards are adhered to. Cairn is committed to observing high CR standards across all our activities including IFC requirements, good industry practice, and all international and national legislation.

"During our Senegal drilling programme in 2017, we improved our management of CR risks and managed to reduce costs compared to previous campaigns."

In October 2017 we introduced a new CR policy, the Corporate Major Accident Prevention Policy (CMAPP). It strengthens our commitment to avoiding major accidents and mitigating major accident risk. This complements our other corporate policies which were updated at the same time. Although our standard operating procedures within the CRMS contained these requirements already, the CMAPP gives more visible commitments as required under the EU Offshore Safety Directive. It is a pre-requisite for operating in the UK Continental Shelf (UKCS). This is necessary as part of our planning preparations for drilling an exploration well in the Ekland block during 2018. It helps clarify our commitment and standards for the selection of a cost-effective drilling rig, which will need to comply with the UK Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015.

Our CRMS will be re-audited in 2018 to re-verify the environmental component against the requirements of the OSPAR recommendation 2003/5, also a requirement in the UKCS and in Ireland. We will also review the CRMS against the latest health and safety management systems standard ISO45001, which replaces OHSAS18001 and is due to be released during 2018.

**CRMS Improvements in obtaining new opportunities**

International investment in new opportunities is a significant part of our activities, both where we may become an operator or joint venture partner. To protect our investment, we continue to assess CR risks as part of our evaluation of a new relationship or a new location. Although some opportunities may be financially attractive, we may judge them to represent an unacceptable risk due to associated ethical, safety or environmental concerns.

Our new ventures team successfully secured attractive acreage in Mexico against strong competition. This required us to demonstrate conformance with the health and safety management system (OHSAS18001) and environmental management system specifications (ISO14001). Our OSPAR environmental management verification audit was sufficient to demonstrate environmental management arrangements. A separate external health and safety verification audit was conducted to demonstrate that our health and safety systems met the required standard. No adverse findings were made following this audit.

The Investment Proposal prepared for Board approval of entry into Mexico included detailed assessment of multiple risks including ABC, security and environmental risks (see Ethics, ABC and Transparency, Security, and Environment). As a condition of signing the Production Sharing Contract (PSC) we were required to determine the block environmental baseline position and social impacts in order to understand pre-existing liabilities. Preparation for this work was well advanced at the year end.

We strengthened the assessment of risks within our Investment Proposals during 2017 to include a standard approach to the evaluation of modern slavery and climate change risks. We will continue our efforts in 2018, to identify and secure further opportunities and maintain our licence to operate.

Investors continue to scrutinise not only our financial position but also our commitments on CR. In 2017 we reviewed the position taken by key investors on climate change to understand related risks to our business. Although our own assessment of climate change risk to the business remains the same as in 2016, we noted the change in position of some investing institutions in relation to investing in hydrocarbon projects.

Despite this we consider our funding position to remain robust. In the short to medium-term, taking into account government policies, existing legislation, expected energy demand and oil and gas project timescales, ongoing exploration, appraisal and development will continue to be supported and viable in our areas of interest. Our Kraken and Catcher non-operated developments remain fully funded. In the near term, the marginal cost of carbon is not seen as a significant issue, although it may play a part as these assets age and production declines, precipitating a marginally earlier decision to cease production. We do not foresee funding or carbon cost as impacting shareholder value overall in our mature area portfolio at the end of 2017. We will continue to assess the risks associated with access to debt markets and funding. See also Climate Change, Emissions and Discharges.

This and our materiality review were used in shaping our CR Objectives for 2018. Our commitment to working responsibly is undiminished, and we aim to maintain and demonstrate a strong track record continuing to secure investment and opportunities across our target areas.

**Our CR Objectives 2018**

- Implement CMAPP within the business
- Review the CRMS against the new health and safety standard ISO45001 which is due to replace OHSAS 18001
- Re-verify the CRMS against the requirements of OSPAR recommendation 2003/5

# Working Responsibly continued
## Our Corporate Responsibility Priorities continued

## Business Relationships continued
### Material issue 2 of 9: Contractors and Supply Chain

Success in this area directly contributes to deliver against the following
**Strategic Objectives**

**Maintain Licence to Operate**

**Deliver Operational Excellence**

04 Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these
**Principal Risks**
Shown below

**Health, safety, environment and security**

40 Read more: Risk Management on P40-47

How we performed against our
**CR Objectives 2017**

**Run contractor workshops in Senegal with themes including Life Saving Rules (LSR) and the Modern Slavery Act (MSA)**

- Contractor workshops were implemented through the Senegal drilling campaign on a monthly basis.
- Contractors were engaged on LSR, human rights, MSA and a variety of HSE topics.

**Support other programmes planned across the Group**

- Contractor selection support commenced for future programmes in the UK, Senegal and Mexico.
- Contractor input was made to our joint venture partners.

**Quality contracting services in Senegal**
As a predominantly exploration and appraisal-led operator, we continued to rely very heavily on the use of contractors to provide significant elements of our operational capability. All our contractors are selected on the basis of service capability, application of suitable standards and cost. This is assessed through the tendering processes, pre-activity readiness assessment and engagement, and subsequently monitoring during our operations. During 2017 we continued to engage with our contractors in Senegal and commence application of selection processes for planned 2018 work in the UK and Mexico. For the most part these are international service companies; however, we continue to promote the use of local services wherever we can, provided our high CR standards can be met.

Our international contractors are expected to apply high CR standards and our selection process continues to be a key factor in identifying and building good performance at the outset of a project. In late 2016 we selected high performing contractors for the Senegal programme which proved successful during the operational period between January and September. We set in place the appropriate procedures to ensure contractors' management systems and our own were consistent and any gaps identified and bridged. Operations commenced in January and ended in September.

In 2017 we had a total organisational workforce of 236 of which 76% were direct employees and 24% were consultants employed on fixed-term contracts. We also had material contracts with over 20 organisations representing approximately 360 contractor personnel. Services and equipment used in exploration and development came from various locations and suppliers around the world. On this basis, approximately 60% of our workforce was composed of contractors representing 63% of our hours worked. (See also Major Accident Prevention and Safety).

Local contractors from our 2016 programme in Senegal used for our shore base support services were re-engaged for the 2017 campaign, in part to build on previous achievements and provide continuity of support. This again proved successful, with the shore base personnel showing a high level of professionalism delivering the programme in a safe and environmentally responsible manner. Our local personnel and contractors represented 19% of our workforce.

**Promoting local contractor participation in Senegal**
We continue to consider where we are in the oil and gas life cycle of any project in order to develop a clear contracting strategy for both early works as well as promoting involvement of local businesses.

As we moved towards the project development phase of the life cycle In Senegal, we engaged with our joint-venture partners and key local stakeholders in order to improve local contractor participation. We looked at future opportunities for local businesses, contractors and suppliers to be involved in the project. Initiatives included the commencement of a benchmarking activity. This helps us to determine capacities of the local business in our sector, whilst promoting responsible operating standards (see Social and Economic Benefit). This will continue in 2018.

**Contracting in new licences**
In 2017 we acquired new acreage in Mexico and secured operatorship of the Ekland block in the UK from the previous operator. Planning is key to ensuring we select contractors who share and implement the principles and standards we support.

Following successful acquisition of Block 9 In Mexico as operator we selected contractors to help us understand potential liabilities and risks associated with acquiring the licence, both in respect of social impact and environmental baseline conditions. This is part of compliance with the Mexican regulations on taking over from the previous operator. We identified an experienced contractor ensuring they understood our

Case Study:

## Senegal Contractor Workshops and Initiatives

**Workshops**
We reinstated and extended our contractor workshop programme in Senegal for 2017. This allows all our contractors to present and discuss issues, and share best practice. A wider variety of topics were covered this year including among others:

- General campaign HSE/CR briefings and monthly safety themes
- Importance of Cairn Life Saving Rules
- Contractor led sessions
- Lessons learnt for good performance
- Troubleshooting activities
- Incident and near miss reviews
- Plant and equipment hazards
- Rig, vessel, aviation and service contractor procedures
- Water management
- Waste management
- Oil spill response
- Modern slavery

**Initiatives**
Key initiatives were safety programmes using consistent Hazard Observation Systems across our offshore and onshore contractors, and we maintained a reward scheme for exceptional observations. We continued to test our contractor audit programmes and implement our own audits to check agreed standards were being met. We held a modern slavery assessment of one of our close contractors for the first time (see Human Rights).

We continued emphasis on leadership with visits to our contractors and workshops by our senior management to reinforce the importance of maintaining high standards and vigilance in their application.

### Health and safety triangles, Senegal operations, December 2016 – September 2017

**10**
Management Visits To Rig

**535**
HSE Audits

**1,213**
Safety Drills & Training

**13,979**
Job Risk Assessments
Time Outs for Safety | Toolbox Talks

**36,478**
Safety Observations

**Number of preventative health and safety actions**

**0**
Fatalities

**0**
Lost Work Day Cases

**2**
Restricted Work Day Cases/
Medical Treatment Cases

**6**
First Aid Cases

**8**
Near Misses

**Number of health and safety incidents**

requirements and allowed us to develop a cost-effective approach to delivering environmental surveys. This meant partnering with other operators in a similar position to use a single vessel to undertake surveys over multiple blocks.

For the UK Ekland block, planning and selection of contractors commenced in anticipation of an exploration well in Q2/3 2018. We will follow our contracting procedures which are aligned with our Code of Ethics and CRMS requirements, ensuring a streamlined approach.

Our rig contractor for this UK operation will need to conform to our standards and be compliant with the UK Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015 at the outset to expedite the programme. We are working with the UK regulators to ensure our contractor relationships are clear and conform to all UK regulatory and our Cairn CRMS requirements. We continue to apply lessons learned from successive drilling programmes.

**Our CR Objectives 2018**

**Ensure Cairn Life Saving Rules and drilling lessons learned are implemented in the Ekland drilling campaign**

**Develop integrated contractor audit plan**

# **Working Responsibly** continued
## **Our Corporate Responsibility Priorities** continued

## **Business Relationships** continued
### Material issue 3 of 9: **Ethics, Anti-bribery and Corruption and Transparency**

Success in this area directly contributes to deliver against the following
**Strategic Objectives**

**Maintain licence to operate**

**Deliver a sustainable business**

Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these
**Principal Risks**
Shown below

**Health, safety, environment and security**

**Fraud, bribery and corruption**

**Political and fiscal uncertainties**

**Access to debt markets**

Read more: Risk Management on P40-47

How we performed against our
**CR Objectives 2017**

We integrated our Business Principles into the Code of Ethics

The new Code of Ethics (the Code) was published for the first time

We delivered targeted training on ABC in 'high risk' countries

The ABC content of our due diligence process was revised

We revised the gifts and hospitality register

**The Code**
Since inception Cairn has maintained a strong stand on ethical matters, which is the key to delivering value and maintaining our licence to operate. Back in 2004, we established our HSE Guiding Principles that have been updated annually ever since. The HSE Guiding Principles evolved into our Corporate Responsibility Business Principles in 2006 introducing our core values of Respect, Relationships and Responsibility: the '3Rs'. The principles were further enhanced in 2010 with the establishment of Cairn's ten Business Principles.

In 2017 we combined our Business Principles with the Code of Business Ethics to produce an integrated Group Code of Ethics (the Code). This retains our 3Rs and ten Business Principles and combines them with our ethical position. It also aligns them to our four Corporate Responsibility themes of: Business Relationships; Society and Communities; People; and Environment; against which we report. In order to improve transparency, the Code is published in full and is now available on our web site for the first time.

Read more information at
https://www.cairnenergy.com/investors/corporate-governance/

The Board's audit committee remains responsible for appointing an internal auditor to regularly conduct internal audits of Cairn's compliance with the Code. All levels of management at Cairn, including executive and non-executive directors, regional directors, general managers and heads of departments, are responsible for ensuring consistent application of the Code. Personnel must abide by the Code and promote its use in all business activities, and all employees are required to sign up to the Code as part of their employment conditions.

Our position on ethical matters continues to grow in importance with interest from investors, funding institutions and a wide variety of stakeholders. Poor performance in this area could precipitate inability to access opportunities and funding (see Economics and Funding), loss of reputation and negative impacts on people and communities.

Measuring performance

**0**

Incidents of non-compliance with the Code.

Measuring performance

**0**

Employee dismissals for non-compliance with the Code.

**Anti-bribery and corruption**
We continued to improve our ABC management system in 2017, including a review and upgrade of our gifts and hospitality register along with a revision of our due diligence procedures. In addition, we targeted further training for staff working on projects in 'high risk' countries.

Employees are encouraged to report any incident they believe may compromise our Code of Ethics. They can do this in a number of ways, including using a confidential phone line or speaking directly to their regional director. Where appropriate, the procedures can also facilitate an independent investigation of any matters raised. The Group's whistleblowing procedure was also highlighted for use in the event of suspected issues relating to modern slavery.

Cairn is registered with the whistleblowing charity Public Concern at Work, which offers staff an alternative way of reporting an issue if they are not comfortable using internal procedures.

Read more information at
https://www.cairnenergy.com/working-responsibly/business-relationships/ethics-and-transparency/

> "In 2017 we also reviewed the position of some of our shareholders on material issues such as climate change, given the rising profile of this topic."

**Measuring performance**

**17%**

Employees trained in Cairn's anti-corruption policies and procedures.

### Ethical issues and our assets

During 2017 we maintained our efforts to track emerging ethical issues of importance to us and our broader stakeholders. Particular attention has been paid to the requirements of the Modern Slavery Act. This is discussed in our section on Human Rights. We also tracked requirements under the Equality Act, although we do not fall under the current provisions (see Human Rights).

During 2017, our assets included a 20% non-operated interest in Boujdour Maritime block in offshore Western Sahara. Western Sahara has been classified as a 'Non-Self-Governing Territory' by the United Nations since 1961. Both Morocco and the Saharawi Arab Democratic Republic claim Western Sahara as their sovereign territory. Following withdrawal of the operating partner Cairn decided not to continue to pursue this opportunity and subsequently also relinquished this block at the year end. We continued to fulfil our commitment by completing the 3D seismic programme initiated in 2017.

We hold a wide portfolio of operated and non-operated assets in Norway, some of which are in the Barents Sea. There is some stakeholder debate about exploration in the Barents Sea, mainly in relation to potential environmental impact (in Arctic waters) and climate change (see Climate Change, Emissions and Discharges). Our assets are in parts of the Barents Sea that have ice-free operating conditions similar to the Norwegian shelf, and in this respect drilling is technically no different to drilling on the Norwegian shelf. Norwegian HSE requirements are among the highest in the world and with our track record of high standards of well design and offshore operations we believe activities in the Barents Sea can be delivered in accordance with them.

Read more information at
www.cairnenergy.com

### Transparency

We continued to engage in and report on our business activities in a transparent and open manner in 2017. As in previous years we have been proactive in engaging with investors and shareholders through investor roadshows and regular and routine market updates. We maintain an investor area on our web pages that provides relevant up-to-date information. In addition, in 2017 we published the Group Tax Strategy on our website.

Read more information at
www.cairnenergy.com/investors

We also worked with potential investors in Senegal to demonstrate our position on working responsibly across our operations and to our commitment that our partners should do the same.

We responded to multiple requests for information from investor analysts, shareholder representatives and other concerned stakeholders regularly, always endeavouring to answer as completely transparently as possible. The Board remains fully briefed on engagement programmes and inbound requests. Our investor relations database is continuously updated in order to manage the communication process effectively.

In 2017 we also reviewed the position of some of our shareholders on material issues such as climate change, given the rising profile of this topic as a business and investor issue (see Climate Change, Emissions and Discharges). This was used to understand potential engagement requirements and improve our reporting processes.

### Transparent reporting

As a listed public company we continue to report annually in line with regulations. We completed responses to all queries associated with our Annual Report and Accounts 2016 including closing-out final requests from the Financial Reporting Council (FRC) received in Q1 2017 arising from the ClientEarth referral regarding the reporting of climate change risk. As part of our material issue identification in 2017 we initiated a stakeholder review which is discussed on page 49.

Team at Cairn supply base in Dakar port.

# **Working Responsibly** continued
## **Our Corporate Responsibility Priorities** continued

## **Business Relationships** continued
### Material issue 3 of 9: **Ethics, Anti-bribery and Corruption and Transparency** continued

We are committed to responsible and transparent reporting and have been recognised for the quality of our work in this area. In 2017, we were shortlisted for 'Best Use of Digital Communications' which recognised the investor, strategic and reporting content of our company website which was re-launched in May.

In the analysis of FTSE 250 Corporate Trends 2017 by PwC, Cairn was one of the few companies specifically commended for integration of information in the front-end of accounts.

We apply global standards to ensure our reporting is of the highest quality including the Global Reporting Initiative[5] Sustainability Reporting Standards at a 'Core' level. We follow the content principles of materiality, stakeholder inclusiveness, sustainability context and completeness; and its quality principles of balance, comparability, accuracy, timeliness, clarity and reliability. See our Responsibility webpages.

**Payments to governments**
In 2017 we continued to participate in the Extractive Industries Transparency Initiative (EITI) which commits those involved to the transparent reporting of tax contributions and other payments to governments by oil and gas companies. We have participated in EITI since 2013. As in previous years, we have disclosed our payments to governments. These disclosures include both payments to governments included in our EITI reporting, such as corporate income tax, licence fees and withholding tax suffered, and additional payments made including VAT, payroll taxes and social security costs.

We also reported on payments to governments under the EU Accounting Directive on a country-by-country basis for the second time in 2017.

Measuring performance

**$36.1 M[6]**

Payments to governments.

**Our CR Objectives 2018**

Ensure the Code is rolled out to all new and existing personnel

Conduct ABC risk assessment for Mexico operations

5 GRI is an international independent organisation that helps businesses, governments and other organisations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others.
6 Refunds from governments in 2017 were US$37.6 million.

The team on the Stena Drillmax.

# Society and Communities

## Material issue 4 of 9: **Social and Economic Benefits**

Success in this area directly contributes to deliver against the following

**Strategic Objectives**

**Maintain licence to operate**

04 Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these

**Principal Risks**

Shown below

**Health, safety, environment and security**

**Delay in Senegal Development Plan**

40 Read more: Risk Management on P40-47

How we performed against our

**CR Objectives 2017**

Our Impact Benefit Plan for Senegal was updated, matching it more clearly to the UN Sustainable Development Goals (UNSDGs)

**Delivering social and economic benefit**

Our strategy continues to be delivery of value for our stakeholders through the oil and gas life cycle by generating social and economic benefit through our activities. Our stakeholders are diverse and there are many ways in which we can deliver value for them, both economic and social.

Whilst economic and social policy is the remit of governments, Cairn recognises that it has a role in adding value to society. In 2015, world leaders committed to the UN Sustainable Development Goals (UNSDGs) which set out targets across 17 prioritised areas ranging from ending poverty, ensuring access to energy, protection of ecosystems, addressing climate change and decent work.

Although not all the UNSDGs are relevant to Cairn, there are expectations of companies to look across the value chain to where both positive and negative impacts can occur and to identify actions that can be taken.

We are now assessing our activities for contributions we can make to the UNSDGs to develop our plans to minimise the impacts and maximise the benefits of our activities for host countries.


**"Economic and social policy is the remit of governments, Cairn recognises that it has a role in adding value to society."**

**Working Responsibly** continued
**Our Corporate Responsibility Priorities** continued

# Society and Communities

## Material issue 4 of 9: **Social and Economic Benefit** continued

In Senegal, we have developed an Impact Benefit Plan that concentrates on seven of the 17 UN SDGs where we can have the most beneficial impact.

| | | |
|---|---|---|
| **Ensure healthy lives and promote well-being for all at all ages** | Through our social investment activities with The Hunger Project* (THP) for clean water and sanitation, nutrition, maternal health and community health. | **8**<br>Number of rural community development centres being supported to self-reliance through our partnership with THP*. |
| **Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all** | To help the current and future Senegalese workforce develop skills to enhance their ability to find work in the developing oil industry and other sectors, through:<br>• Support of English language training.<br>• Working with government and other oil and gas companies on educational support. | **29**<br>Number of students receiving English language training. |
| **Achieve gender equality and empower all women and girls** | Through our social investment activities with The Hunger Project for women's empowerment in rural and coastal communities by:<br>• Enabling greater access to finance.<br>• Mobilising and organising women-led groups.<br>• Building skills and entrepreneurship. | **Over 700**<br>Number of women participating in THP training activities in fishing communities through our partnership with THP. |
| **Ensure access to affordable, reliable, sustainable and modern energy for all** | Through:<br>• Our contribution to affordable energy for Senegal through the discovery, appraisal and delivery of oil and gas to meet energy demands. | **75k-125k**<br>Barrels of oil per day targeted for phased development. |
| **Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** | Through:<br>• Payments to our contractors and suppliers including locally and internationally based companies.<br>• Payments to our local employees.<br>• Payments to government which include licence fees, taxes, duties and training allowances.<br>• Application of our Policies and Principles and respect for human rights and through the requirement and mentoring of our suppliers to apply the same. | **18%**<br>Contractors that were national (%).<br>**24%**<br>Total proportion of spending on local suppliers (%). |
| **Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation** | Through:<br>• Provision of training and mentoring for suppliers on best industry practices.<br>• Developing a recycling business through our social investment programme.<br>• Upgrading of existing infrastructure at the supply base.<br>• Working with other oil companies on promoting access to local suppliers to oil and gas contracts. | **72**<br>Number of contractors in Senegal receiving training/mentoring from Cairn. |
| **Build effective, accountable and inclusive institutions at all levels** | Through:<br>• Upholding high standards of governance, ethics and anti-corruption through, for example, our commitment to the UN Global Compact.<br>• Provision of English language and oil industry awareness training to institutional stakeholders. | **38**<br>Number of institutional stakeholders participating in English language training assisting in building good practice. |

* The Hunger Project is a global, non-profit, strategic organisation committed to the sustainable end of world hunger. Its mission is to end hunger and poverty by pioneering sustainable, grassroots, women-centred strategies and advocating their widespread adoption in countries throughout the world.

The launch of octopus pots – a project in Senegal to increase the stocks of high-value octopus. As part of the project octopus pots have been donated to the community committee who will manage their distribution and replacement in future years.

Case Study:

## Supporting Mobilisation of Fishing Communities in Yenne, Senegal

Based on decades of experience, THP, via integrated programmes that combine confidence building with tools and training, has empowered communities to positively take the lead in their own development. Ultimately, communities are able to take the necessary steps to end their own hunger and poverty using an established and successful model known as the Epicentre Strategy.

There are four broad phases through which epicentre communities progress: Mobilisation, Construction, Programme Implementation and Transition to Self-reliance. In the last phase communities are able to fund their own activities and no longer require external financial investment.

Over time, epicentres follow an integrated plan that includes the development of social infrastructure, for formation of elected committees and physical infrastructure in the form of the epicentre building. This new infrastructure supports sustainable synergy among programmes in health, nutrition, education, adult literacy, empowerment of women, improved farming and food storage methods, income generation, water and sanitation, and microfinance.

In 2015 Cairn carried out a 3D seismic survey in its nearer shore licence areas. A seismic survey interprets seismic energy to assess the composition, fluid content, extent and geometry of rocks in the subsurface. Through the Environmental and Social Impact Assessment (ESIA) and the operational activities we had significant interaction with artisanal fishermen from the coastal areas of Senegal. Subsequently, Cairn asked THP to carry out an exploratory mission to better understand the challenges faced by these communities to assess how oil and gas activities may impact them or be perceived to impact them. The study identified vulnerable communities along the coast managing threats to their artisanal fishing way of life, fishing stocks and food security.

Considering the potential significance of these communities to ongoing and potential future oil and gas activities, Cairn asked THP to consider whether their epicentre strategy could be transposed to a coastal community. It was agreed that a pilot programme could be developed and in April 2017 Cairn signed a third Memorandum of Agreement with THP. The aim of this 30-month programme is to support seven fishing village communities, around Yenne, south of Dakar.

The programme seeks to develop strong leadership skills and build capacity by providing knowledge and training, particularly for women and girls. The programme training and capacity building, covers health and nutrition, education, hygiene, environment and microfinance and credit opportunities.

Ultimately, the proposed project aims to catalyse community-led development by identifying leaders, and to enable advocacy for their own community needs. This strategy will contribute to the economic and social development of the community, via the key components, as identified by the fishing communities themselves.

The project will support approximately 22,450 people from across seven coastal fishing village communities, based in the southern peninsula of Cap Vert, near Dakar.

**Our CR Objectives 2018**

Review developments to integrate UNSDGs into Company strategy

Review social investment criteria and guidance

**Working Responsibly** continued
**Our Corporate Responsibility Priorities** continued

# Society and Communities

## Material issue 5 of 9: **Human Rights**

Success in this area directly contributes to deliver against the following

**Strategic Objectives**

**Maintain licence to operate**

04 Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these

**Principal Risks**

Shown below

**Health, safety, environment and security**

40 Read more: Risk Management on P40-47

How we performed against our

**CR Objectives 2017**

- We evaluated potential modern slavery risks in our supply chain and in our investment planning
- We developed a mechanism to assess modern slavery issues during contractor selection
- We developed training packs on human rights and modern slavery which were rolled out to our staff and key contractors in Senegal
- We commenced auditing of our key contractors in Senegal on modern slavery issues
- A statement as required under the Modern Slavery Act was developed and posted on our web site
- Improvements to our contract terms and conditions were identified by our internal audit programme
- Our People Management Manual was revised and released

**Protecting people in our supply chain**
Our new Code of Ethics and CSR Policy uphold our long standing support for the United Nations' Universal Declaration of Human Rights. Human rights are particularly important to some of our key stakeholders including our employees and the communities in which we operate.

Following the introduction of the UK Modern Slavery Act in 2016, we identified the likelihood of falling within the provisions of the Act in 2017 as turnover increased. As a consequence, we set CR objectives in 2017 to improve our position regarding these requirements, including building on our understanding gained in 2016. This included attending a briefing session at the Institute of Directors, Scotland, to gain further knowledge and proof our approach. Despite production commencing in both Kraken and Catcher at the end of 2017 our turnover did not reach the threshold specified in the Act. However, we progressed as planned as we will fall under the provisions of the Act in 2018.

In general terms, the approach developed followed a similar track to that used in our ABC management system. Primary actions conducted were to carry out a risk assessment covering all countries where we operate including potential vulnerabilities to modern slavery within the supply chain. We tend to use specialist international contractors with well-developed employment practices. However, they may have a subcontracting chain using agencies and other sources with unclear practices, particularly in locations with less strict or weaker human rights regulations especially for less skilled tasks. Our influence diminishes the further we travel along the supply chain but we will continue to press our contractors to apply good practice.

We also use local suppliers directly and it is important to ensure they understand our requirements on human rights, implement zero tolerance towards any form of modern slavery behaviour and protect the rights of their workforce. A summary of our actions on modern slavery in 2017 appears on the following page.

Our Modern Slavery statement appears on our web pages – https://www.cairnenergy.com/working-responsibly/

**Company**
Ensuring the human rights of employees are respected

**Partners/Contractors**
Using influence or management controls to make sure partners/contractors/suppliers are not engaged in human rights abuses such as child labour, forced labour, modern slavery

**Community**
Ensuring the Company does not have a negative impact or legacy in the communities where projects/sites are located

**Society**
Using influence to develop policy that supports and rewards responsible behaviour

**Cairn's reducing ability to control and influence →**

## Our key actions on modern slavery in 2017:

Two training packages were developed. The first was a general human rights and modern slavery pack rolled out to all our employees; the second a more focused session which was presented to our key Senegal contractors at the July contractor workshop in Dakar.

Our procedure for the Selection of Services Providers was revised to incorporate assessment for modern slavery during the selection process. This followed a similar approach to that applied for ABC assessment.

Our assessment of human rights as part of due diligence processes, including country entry, now includes a review of key indicators including status under international classification indices.

An internal audit made recommendations for improving our contracting arrangements.

The standard terms and conditions within our contracts were modified to specify zero tolerance of modern slavery and likewise requirements of sub-contracting parties, and we also strengthened our right to audit.

We developed a modern slavery statement as part of our 2017 reporting; it is available on our website.

We identified some irregularities in the terms of employment of personnel working for our key contractor in Senegal which were addressed. A modern slavery assessment of the contractor was conducted subsequently.

Preparations are in hand for an integrated assessment of potential contractors that we may use in 2018 for drilling in the UKCS, Senegal activities, as well as to support contractors in Mexico.

Our whistleblowing policy has been extended to cover modern slavery issues and the mechanisms for reporting. The general Human Resources Group whistleblowing policy is supported by training.

**Measuring performance**

**0**

Total grievances and incidents of discrimination.

We have not identified any significant risk of forced or compulsory labour in our supply chain in 2017.

**Protecting our employees**

In July 2017 our People Management Manual was released following comprehensive review. It contains our Group People Policy and all employee-related policies and procedures. This manual includes our requirements for personnel employment including: general employment terms; recruitment and selection; diversity; health and well-being; work and life balance; training and deployment; employee relations; rewards and benefits; facilities management; and other policies such as whistleblowing (See our Human Resources section). We expect our contractors to treat their employees in the same way with a clear mechanism in place. We respect the rights of freedom of association and collective bargaining.

We continue to consult our workforce on organisational and performance issues through a variety of means. We respect those contract employees who work with us and their membership of unions.

In addition, we have identified the specific risks and requirements around unions in certain locations such as Mexico.

**Protecting communities**

Our position on human rights in the communities where we operate continues to be an important element of what we do. This means applying our CRMS which includes the International Finance Corporation's (IFC) Performance Standard[7]. As in 2016, our activities remained largely offshore with limited potential impact from our shore base activities in Senegal, and no physical displacement occurred as our shore base is within the curtilage of Dakar port. The same is likely to apply for any potential activities in Senegal for 2018 and in the UKCS Ekland well. Moreover, in 2017 we looked at locations for shore based operations in Mexico and these too will have limited impact.

We built on our programmes to protect and enhance support for local communities, achieving substantial progress in our initiative with fishing communities in Senegal. The work which is ongoing with NGO The Hunger Project (THP) is captured in our Impact Benefit Plan for Senegal and is further discussed under **Social and Economic Benefit**.

7 IFC Environmental and Social Performance Standard 5 – Land Acquisition and Involuntary Resettlement. January 1, 2012.

**Working Responsibly** continued
**Our Corporate Responsibility Priorities** continued

# Society and Communities

## Material issue 5 of 9: **Human Rights** continued

The requirements and tools to support implementation of our human rights policy across the business are laid down in our CRMS and Human Rights Guidelines. This includes continued commitment to a 'rights aware approach' which means identifying potential human rights issues in our activities, assessing if we have influence over the issues and defining appropriate action. This applies across the life cycle of the business.

We have not identified any interaction between our operations and indigenous peoples in 2017.

**Addressing grievances**
Grievances where they do occur are taken very seriously, whether arising from the employees or associated with a project in the communities where we operate. Complaints and grievances are reported to the Management Team and the Board when they arise. They are investigated and actions identified.

Our Group whistleblowing procedure is contained within the People Management Manual and has been in place since 2009. It details responsibilities within the Company, safeguards in place, mechanisms for raising concerns and the investigation process.

Separate grievance mechanisms in operating locations are provided in local languages and published to allow communities access. Some locations may also have specific external mechanisms for reporting concerns such as in the UK including 'Public Concern at Work' **www.pcaw.org.uk/individual-advice/guidance** or hotlines for specific issues such as the Gangmaster Licensing and Labour Authority and UK Slavery Helpline.

### Our CR Objectives 2018

- Include our Modern Slavery Act requirements in all contract terms and conditions
- Define a human rights and modern slavery audit programme for 2018
- Enhance due diligence for human rights and modern slavery risks in new venture evaluations

More information about our Approach to protecting Human Rights is available at **https://www.cairnenergy.com/working-responsibly/society-and-communities/human-rights/**

Members of the local community at The Hunger Project Epicentre in Mpal.

Members of the local community at the Epicentre in Sam Contor.

# People

## Material issue 6 of 9: **Major Accident Prevention and Safety**

Success in this area directly contributes to deliver against the following

**Strategic Objectives**

**Maintain licence to operate**

04 Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these

**Principal Risks**

Shown below

**Health, safety, environment and security**

40 Read more: Risk Management on P40-47

How we performed against our

**CR Objectives 2017**

- Our crisis and emergency team were fully trained to support our operation and exercises were performed quarterly
- We developed a Corporate Major Accident Prevention Policy
- We implemented a series of successful safety campaigns
- No Lost Time Injuries
- No Restricted Work Day Cases (RWDCs)
- Two Medical Treatment Cases (MTCs)
- A single spill to sea of 34 litres of hydraulic oil

**Prevention of major accidents – operated assets**

Our operated and non-operated activities continued without major incidents in 2017 and this is attributable to a number of factors, but in no small part to ensuring preventative measures are integrated into the projects during the planning and operational phases.

In our operations in Senegal we applied our Well Engineering and Construction Management System (WECMS) including: well engineering and construction standards; well design, barrier and casing standards; well control manual; and management of change standard.

The rig was selected and accepted in late 2016 using defined criteria to meet the WECMS and CRMS major hazard prevention requirements and those of the regulations in Senegal. These specific engineering and management control barriers were set in place as part of the planning process under the Project Delivery Process, which is a requirement of the Cairn Operating Standards (COS). This included acceptance and readiness assessments, operational contractor bridging procedures, regular contractor engagement (see Contractors and Supply Chain) and ongoing monitoring and assurance.

Our well design, planning and inspection procedures are applied wherever we operate in conjunction with existing legislation. Consequently, planning commenced in September 2017 for our UK Ekland well due to be drilled in 2018 on this basis, employing the same rigorous approach and in accordance with UK Continental Shelf (UKCS) regulations. As part of our commitment to high standards of prevention we also developed a Corporate Major Accident Prevention Policy in 2017 to conform to the requirements of the Offshore Installations (Offshore Safety Directive)

## Project Delivery Process

Our Project Delivery Process (PDP) is the well-established method defined in the Cairn Operating Standards (COS) which ensure we understand and can control risks at key stages in our projects. During the oil and gas life cycle the PDP helps us maintain focus on what is important to the Company and apply good practice through the application of local and international standards.

We also use the Cairn PDP to manage CR issues and apply these standards for all operated projects under our control.

Specific project types (e.g. seismic, drilling) must meet defined criteria at designated 'stage gates'. Each stage gate has defined actions and deliverables, which must be available and signed off by a 'project gatekeeper' who is independent of the project. In this way, project integrity and performance are reviewed throughout the process and, where they deviate from standards, corrective actions are identified and implemented.

| Why | How | Ready | Finished | Learn |
|---|---|---|---|---|
| **Identify** | **Assess** | **Define** | **Execute** | **Evaluate** |
| **Why** are we doing this project? | **How** could we do this project? | Are we **ready** to sanction the work? | Have we **finished** all we needed to do? | What do we **learn** and achieve? |

# Working Responsibly continued
## Our Corporate Responsibility Priorities continued

## People continued
### Material issue 6 of 9: Major Accident Prevention and Safety continued

Measuring performance

**34 litres**

Spills (hydraulic oil) in 2017.

(Safety Case etc.) Regulations 2015. These commitments reinforce the existing requirements set out in our WECMS, CRMS and COS (see Economics and Funding).

**Prevention of major accidents – non-operated assets**

In our UKCS non-operated asset Kraken, first oil production commenced in June following successful commissioning and receipt of all approvals. This included fulfilling all major accident hazard prevention requirements of the enhanced Safety Case regulations for offshore installations. Similarly the Catcher Floating Production Storage and Offloading vessel (FPSO) arrived in the UK during October following approval of its Safety Case in July with production commencing in December 2017. The importance of developing robust Safety Cases is underlined by the need to ensure major accident 'Safety and Environmental Critical Elements' (SECEs) of the equipment are identified, properly assessed, maintained and controlled.

We continued to support our operating partners in the UK providing challenge and lessons learned to assist in meeting our commitments to prevention of major accidents. In our Norway non-operated activities we continued to manage our 'see to' duties which require the licensee to supervise the operator in a systematic manner and our management system in Norway is designed to help us do so.

**Continuous improvement of crisis and emergency response capability**

At the beginning of 2017 our Crisis and Emergency Response Team (CERT) based in Edinburgh and our Dakar-based Incident Management Team (IMT) were fully briefed on Senegal activities and their duties in the event of a major accident or incident. We tested their combined readiness in our set-piece Q1 and Q2 exercises. In addition, we ran weekly desktop briefings and exercises to continue to broaden exposure to operational drilling scenarios. We also refreshed oil spill training for our shore base and our Emergency Response and Rescue Vessels crews during the campaign.

Over recent years, and 2017 was no exception, we have continued to train and reinforce responsibilities of our CERT staff over a wider range of crisis and emergency response scenarios in order to expand their experience. In 2017 our training and exercise plan set out exercises and planned training for the year. In addition to those exercises for Senegal, our other quarterly exercises

Kraken FPSO.

“We focus on preventing and avoiding all accidents.”

examined our capability to support our personnel in the event of specific security situations (Q3) and during a business continuity event (Q4). We will continue to test a wide range of scenarios with our 2018 plan, taking into account activities planned in Senegal, the UK and Mexico.

Oil spill risk continues to be of high concern to stakeholders, and we remain committed to applying the IPIECA- IOGP Joint Industry Practice[8]. We are an associate member of Oil Spill Response Limited (OSRL) with a number of supporting memberships. We were also a West Africa Central Africa Aerial Surveillance and Dispersant Spraying service (WACAF) member during our Senegal campaign (see http://www.oilspillresponseproject.org/).

We continued to improve our oil spill preparedness in relation to: Oil Spill Contingency Plans (OSCPs); equipment logistical arrangements and deployment planning; and identification of capabilities of support contractors.

**Future planning**

In 2018 we will be working as an operator in the UKCS for the first time in several years. To do so, we are planning to ensure we conform to the UK regulatory requirements for the Ekland campaign. Our CERT will remain in place and IMT duties for the UK will be provided by a very experienced service provider commonly used to support UK-based operators. In advance we will ensure all roles and responsibilities are clear, including crisis and emergency approvals, readiness assessment, and a pre-drilling exercise will be undertaken.

8 The IPIECA-IOGP Oil Spill Response JIP (OSR-JIP) was set up to implement learning opportunities in respect of oil spill preparedness and response following the April 2010 well control incident in the Gulf of Mexico. As part of this effort, the OSR-JIP has produced more than 20 good practice guides. IPIECA is the global oil and gas industry association for environmental and social issues.

In the UK we are required to develop an Oil Pollution Emergency Plan (OPEP) defining our overall onshore-based response, and in the case of the selected rig a Temporary Operations Oil Pollution Emergency Plan (TOOPEP). We will maintain all relevant OSRL memberships and associated insurances required for operations in the UK.

Mexico emergency support providers will be assessed during late 2018 or early 2019 as part of planning for wells on our operated block.

**Occupational safety**

During 2017 we worked hard to apply our Safety System of Work (SSW) at our operational base in Senegal along with continued engagement with our contractors in our operational activities. The shore base SSW was linked to a series of safety campaigns which included among others: dropped objects; quayside safety; fire prevention and fire-fighting; manual handling; and pinch points. This built on previous themes of: team working; lifting operations, tubular handling; traffic management and authority to stop work. We also ensured our Life Saving Rules were clearly understood and promoted during the campaign.

We maintained emphasis on management visits, audits, permit to work, tool-box talks, safety drills and training which are monitored through our leading safety indicators. Our key contractors, both onshore and offshore, showed excellent leadership in participating fully in our CR programmes and supported their staff to achieve no Lost Time Injuries (LTI) during the year.

Our base team maintained their commitment to managing occupational safety risks surpassing 500 days without an LTI by the end of August. Our overall lagging indicators are given overleaf.

10 Read more: **Our Culture** on **P10-11**

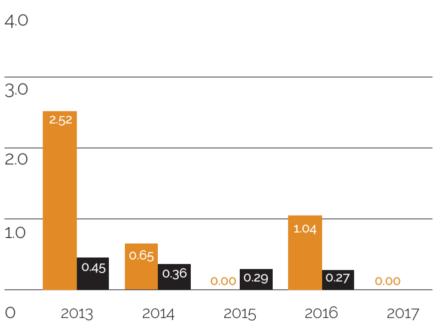
Our web pages discuss Health and Well-Being; Security; Equality & Diversity; and Employees **https://www.cairnenergy.com/working-responsibly/**

Operations on the Stena Drillmax.

# **Working Responsibly** continued
## **Our Corporate Responsibility Priorities** continued

## **People** continued
### Material issue 6 of 9: **Major Accident Prevention and Safety** continued

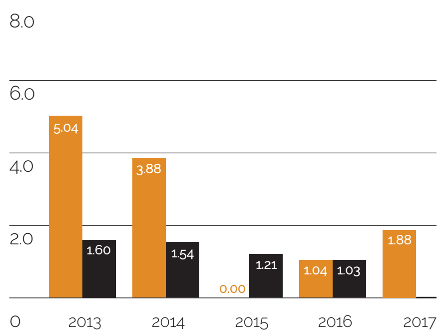
**Lost Time Injury Frequency (LTIF)**
(Lost time injuries per million hours worked)




Cairn total for employees and contractors
IOGP benchmark

Notes:
IOGP is the International Association of Oil and Gas Producers. We have included overall IOGP benchmark figures (average of onshore and offshore for employees and contractors). IOGP benchmark figures are not yet available for 2017.

**Total Recordable Injury Rate (TRIR)**
(Total recordable injuries per million hours worked)




Cairn total for employees and contractors
IOGP benchmark

Cairn TRIR and LTIF statistics can be higher than the IOGP benchmark after only one incident, or a small number of incidents, because our exploration activities often last for only a short time period, so there are relatively few hours worked compared with ongoing production and other long-term operations.

**Our CR Objectives 2018**

- Implement requirement of the CMAPP to conform to UK requirements
- Ensure Crisis and Emergency Response Team and Incident Management Teams' readiness, they maintain function and capabilities including quarterly exercises
- Update all emergency and oil spill plans to meet operational activities
- Roll out our Safe System of Work in our directly controlled shore bases

Operations on the Stena Drillmax.

> **"We continued to do all we can to evaluate threats to personnel and assets."**

# Material issue 7 of 9: **Security**

Success in this area directly contributes to deliver against the following
**Strategic Objectives**

**Maintain licence to operate**

Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these
**Principal Risks**
Shown below

**Health, safety, environment and security**

Read more: Risk Management on P40-47

How we performed against our
**CR Objectives 2017**

We trained our senior managers and CERT on high impact security scenarios including an emergency exercise

We continued to improve our support for those of the country and travelling on business

**Security landscape**
The worldwide security environment continues to be dynamic, and Cairn recognises the need to adapt and innovate in order to address identified and emerging threats and provide a duty of care to our people, assets, investments, reputation and data. There have been a number of well-publicised security incidents during 2017 and the general security threat level in the UK rose to its highest level for a period. Such incidents continue to represent a risk to our personnel and business, demonstrating that they are of global concern. It is clear that our focus should not be directed at locations with known or high risks, but also must take into account the more wide-scale threats to all our personnel.

During 2017 we continued to improve the support and advice given at an organisational level and to individuals, against this challenging security situation. It involved tracking changes in threats across our current locations and providing advice as necessary to all staff. We use targeted online training packages designed with the business traveller in mind, and robust bespoke risk assessments carried out for individual non-routine travel to countries with a medium risk or above. We continued to do all we can to evaluate threats to personnel and assets, and we assess risks on a routine basis so that appropriate training, mitigation and advice can be provided.

**New country entry and location threats**
In addition to monitoring the security situation in our existing locations we look at threats in potential new business locations as part of our due diligence process and new country entry requirements.

For example, as part of our evaluation of the Mexico opportunity, we reviewed the security information thoroughly to identify the key risks we could expect and be required to mitigate. Country visits and our new country entry procedure require us to deepen our understanding of security risks as a matter of course. Our initial security works were completed in Mexico during 2017 in terms of office and other locations we may use for operational purposes. We also develop location specific procedures, which are designed to mature and evolve with the circumstances, to allow us to support our personnel both locally and from our head office.

Cairn supply base in Dakar.

# **Working Responsibly** continued
## **Our Corporate Responsibility Priorities** continued

## **People** continued
### Material issue 7 of 9: **Security** continued

In Mexico the earthquake in September 2017, tragically resulted in a significant number of fatalities and widespread damage in Mexico City and elsewhere outside the capital. Vulnerable personnel either in-country or visiting were provided with earthquake briefings to ensure they were aware how to react in the event of a major seismic event. In 2018 we will continue to develop our presence in Mexico and support personnel including development of security and business continuity arrangements.

We continue to have a large number of personnel travelling on a daily basis, and consequently we have implemented and improved a number of mechanisms to assess before travel risks they may face including health, safety and security. A travel information area has been placed on our intranet and this is available to all staff. We support our people during their travel and in certain instances specific travel security and management plans are set in place to address heightened concerns.

Operations in Senegal continued to be supported by a local security consultancy that provides assistance in the event of an emergency or serious threat, as well as by specialist support in Head Office. We continued to assess all operational areas including UK and Senegal for emerging threats during 2017. Where intelligence was received we took a precautionary approach and acted upon advice quickly, notifying all personnel with potential to be affected. Such advice received from embassies, civil authorities and our support contractors allowed us to advise on security arrangements rapidly. Low-level crime advice was provided and extra security measures were also implemented in Senegal during 2017 following the targeting of some accommodation.

**Cyber security**

This year also saw examples of cyber attacks on organisations and software across the globe, in some cases with significant impacts on the businesses involved. Although we experienced no cyber security breach from the malware incidents this year, and despite robust cyber security plan being in place, we reviewed arrangements to ensure there were no residual issues or gaps following these incidents. Specifically our IS department acted swiftly in response to the breaking news of the worldwide cyber attack (Wannacry ransomware) and quickly imposed extra countermeasures to ensure we continued to safeguard our IT infrastructure.

We continue to monitor developments in this area and participate in active industry bodies to ensure we are aware of potential threats and measures to prevent security breaches and risks which would result from data loss.

**Our CR Objectives 2018**

- Develop security and business continuity plans for our Mexico operation
- Streamline our Security Guidance documentation
- Review current cyber security systems and follow industry good practice to mitigate risks

Operations on the Stena Drillmax.

# Environment

## Material issue 8 of 9: **Climate Change, Emissions and Discharges**

Success in this area directly contributes to deliver against the following

**Strategic Objectives**

**Maintain licence to operate**

04 Read more: **Business Model & Strategy** on **P04-05**

These issues have the potential to impact our mitigation of these

**Principal Risks**

Shown below

- Health, safety, environment and security
- Catcher and Kraken operational and project performance
- Access to debt markets

40 Read more: **Risk Management** on **P40-47**

How we performed against our

**CR Objectives 2017**

- We completed our annual review of COP21 and 22 related risks for the business including a review of the position taken by key investors and peers
- Our phase three Senegal exploration and appraisal programme reduced landfill waste substantially

### Climate change risk and reporting

We continued to monitor and assess developments in relation to climate change in 2017 and will do so on an ongoing basis. This included understanding positions taken by significant contributors such as the USA and China as well as those countries in which we have activities. We conducted a review which looked at our risks in the context of the position taken by our key investors and peer companies in order to benchmark our own (see also Economics and Funding). The review was discussed with members of the Board and shared with other senior personnel. This included announcements by some financial institutions to cease investing in oil and gas projects. As part of our annual review we continued to understand projection for energy consumption in the longer term and the expected contribution of oil and gas. (See our Industry Overview).

We responded to Financial Reporting Council (FRC) questions on our reporting of climate change risk in early 2017 and they concluded that our reporting was satisfactory. We also tracked and commented on climate change reporting proposals arising from recommendations to the G20 Finance Ministers from the Task Force on Climate-related Financial Disclosures (TCFD), which was formed in response to COP21. These recommendations covered governance; strategy; risk management; and metrics and targets. We took on board comments from others regarding TCFD recommendations such as FRC, analysts such as IHS Markit and oil and gas industry organisation for environmental and social issues IPIECA. Cairn will continue to monitor requirements in this area as they develop.

Overall the risk profile of climate change within the business and materiality assessment have left this issue unchanged since 2016. However, we remain conscious of the potential for this to increase risk associated with access to debt markets and funding (see Economics and Funding). We looked at risks overall and in new country entry situations including specific risk reviews in our Investment Proposal summaries to the Board. With our partners, we started to consider climate change issues which may arise for potential development in Senegal. This includes particular requirements in relation to gas management and funding.

In 2018 our focus will be to maintain our efforts to track and understand the risks and developments around climate change and we will perform a portfolio 'resilience' assessment.

### Emissions, discharges and wastes

Our phase three exploration and appraisal programme in Senegal was completed ahead of schedule for the wells drilled thereby reducing emissions on a per well basis from those estimated during the assessment and planning process, and submitted in our Environment and Social Impact Assessment.

Our operations in 2017 had relatively low emissions and discharges compared to a steady state production operation. Our sustained efforts for efficient management of our emissions, discharges and waste continued, and in Senegal our waste management planning continued to ensure minimisation of waste going to landfill. See Case Study on page 73.

# **Working Responsibly** continued
## **Our Corporate Responsibility Priorities** continued

## **Environment** continued
### Material issue 8 of 9: **Climate Change, Emissions and Discharges** continued

We experienced a single very minor spill of hydrocarbons in 2017, with a leak of 34 litres of mineral oil from an underwater remotely operated vehicle (ROV) which resulted in no discernible impact. This incident was included in our report to the Senegal regulators as part of our ongoing environmental and social management plan commitments.

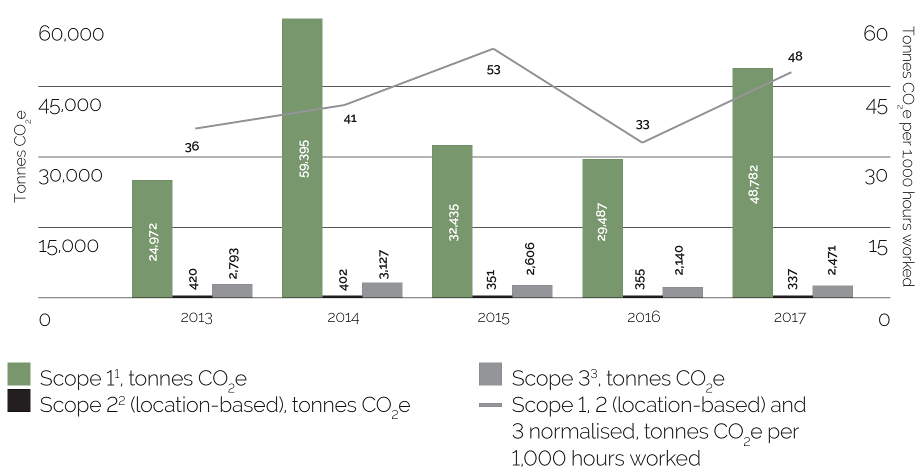
**Sound**
We had no major issues with sound in 2017 and management practices were in place during well perforation for the phase three drilling programme in Senegal. Seismic activities in Western Sahara waters were conducted by our partners without any reported issues.

Product stewardship and resource use are discussed in our CR report 2018 available on our website
https://www.cairnenergy.com/working-responsibly/

**Our CR Objectives 2018**

- Continue to assess climate change risks for the business including reporting
- Develop a climate change resilience review of the portfolio
- Promote high standard of design and performance in our developments

**Total and normalised GHG emissions (scopes 1, 2 and 3)**




We calculate our GHG emissions in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. We use the latest published 100-year Global Warming Potentials (GWPs) for $CO_2$, $CH_4$ and $N_2O$ from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). We report five years of data from a baseline of four years earlier.

1 For calculating Scope 1 (direct) GHG emissions we use emission factors from the API Compendium 2009 (fuel combustion), EEMS 2008 (flaring) and the GHG Protocol 2014 (waste incineration).
2 We report Scope 2 (purchased electricity) GHG emissions in line with GHG Protocol Scope 2 Guidance, i.e. in two ways: according to a location-based method and a market-based method. (Transmission and distribution losses are excluded.) For the location-based method we use emission factors from the IEA (International Energy Agency) (updated to IEA 2016 in 2017). These are grid average emission factors for each country. For district heating and cooling we use location-based emission factors from Defra (updated to Defra 2017 in 2017). For the market-based method we use emission factors, where available, in the following order of preference:
   a Supplier-specific emission factors – obtained from Cairn's offices' electricity suppliers.
   b Residual mix emission factors – obtained from the Association of Issuing Bodies (AIB) document 'European Residual Mixes 2016'.
   c Location-based emission factors. These are the same IEA and Defra emission factors that we use for calculating location-based emissions.
   We have provided location-based Scope 2 figures in this report. Our market-based Scope 2 figures, and further details about our GHG emissions data and calculations, are available on our website.
3 We report Scope 3 GHG emissions from two sources: 1) business travel (business travel well-to-tank emissions are excluded); and 2) electricity transmission and distribution losses.
   For calculating Scope 3 (business travel) GHG emissions we use the Defra methodology, including its recommendation to include an uplift for the influence of radiative forcing in air travel emissions. We updated to Defra 2017 emission factors in 2017 (see http://www.ukconversionfactorscarbonsmart.co.uk/).
   For calculating Scope 3 (electricity transmission and distribution losses) GHG emissions we use Defra 2017 emission factors.
4 Limited assurance of our 2017 GHG data (Scopes 1, 2 and 3 and normalised) has been provided independently by RPS which, within the scope of the limited assurance engagement, has found that the GHG emissions reported are materially correct and a fair representation of available information. A full assurance statement detailing the verification undertaken and its limitations is available on our website.

Case Study:

# Waste Management in Senegal

One of the success stories from our 2017 operations in Senegal has been the management of waste generated by our operations both onshore and offshore. Our operations over three phases of drilling with different rig contractors have generated specific hazardous wastes that cannot be disposed of locally due to the absence of suitable facilities to prevent significant adverse environmental impact. We have worked closely with our partners to ensure that we have been able to address these challenges in a responsible way, minimising impact and meeting and exceeding industry best practice.

**Company CRMS commitments**
The approach that Cairn takes to waste management is detailed in our Business Principles (now the Code), specifically 'Behaving Responsibly towards the Environment' by preventing, or where that is not possible, minimising discharges to land, sea and air. Our CRMS has specific requirements on how waste is managed including application of EU waste classification and management practices such as Duty of Care.

**Senegal and Dakar specific challenges**
There are a number of challenges specific to operating in Senegal which we have had to overcome to ensure robust application of these principles and procedures and establish a robust and effective waste management chain. The Mbeubeuss landfill, a 175 hectare site in a suburb of Dakar, receives nearly 500,000 tonnes of waste per annum including local hazardous wastes. There is little or no control of wastes sent to the site and thousands of local people make a living reusing materials from the site. The site is a very hazardous environment with risk to health and the environment. This landfill is one of a number of similar sites in Africa which has few recognisable management controls.

As a responsible operator, Cairn had to eliminate wherever possible any waste that may be disposed at the Mbeubeuss landfill and ensure that materials destined for it did not contribute to these health and environmental risks.

We also had to ensure that waste stored and transported prior to sorting, cleaning and disposal was controlled and secure in line with Duty of Care arrangements. Some materials such as oil filed items have potential resale value, particularly items such as plastic and metal drums and containers. These are classified as hazardous wastes given our intent to dispose of them. It was imperative that given the harmful nature of their original contents these did not inadvertently get repurposed for carrying water or food for human or animal consumption. In addition, seemingly benign waste such as wood and metal scrap also had to be tightly monitored to ensure it posed no harm through inappropriate reuse.

**Working with Partners**
To this end, Cairn employed the services of Veolia ES Field Services Limited to develop a secure waste management area within the confines of our supply base and work locally in Dakar to identify and build working relationships with existing waste management contractors and recycling facilities. In addition, we worked together to agree arrangements with a local cement kiln involved with waste to energy initiatives. Through Veolia and our local Cairn team we identified contractors who could treat and dispose of the majority of the waste generated during our operational activities. Those specialised or hazardous wastes which could not be treated in Senegal included waste electrical equipment, some batteries and fluorescent tubes. These were safely and securely stored and arrangements made to export them to dedicated treatment and disposal facilities in Europe in compliance with the Basel Convention.

Landfill waste

**0.6%**

In 2017 Cairn and its partners generated nearly 414 tonnes of waste during operational activities in Senegal. Of this, 0.6%, or 2.5 tonnes ended up in landfill and what did was ordinary domestic waste. For comparison the UK disposes over 50% of municipal waste to landfill.[9]

Recovered or reused waste

**16.3%**

Of the rest, 16.3% was recovered or reused, 28.2% was recycled, 25.1% was treated waste water, 20.8% was incinerated, 6.8% was stored pending treatment, 1.4% was composted and 0.8% was exported.

Recycled

**28.2%**

Wastes treated included domestic waste, filters, oily rags, plastic, metal scrap, wood, empty metal and plastic drums, waste water, drilling waste medical waste, waste electrical equipment, and hazardous chemicals.

9 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/593040/UK_statsonwaste_statsnotice_Dec2016_FINALv2_2.pdf

# Working Responsibly continued
## Our Corporate Responsibility Priorities continued

## Environment continued
### Material issue 9 of 9: Biodiversity

Success in this area directly contributes to deliver against the following
**Strategic Objectives**

**Maintain licence to operate**

04 Read more: Business Model & Strategy on P04-05

These issues have the potential to impact our mitigation of these
**Principal Risks**
Shown below

- Health, safety, environment and security
- Catcher and Kraken operational and project performance
- Access to debt markets

40 Read more: Risk Management on P40-47

How we performed against our
**CR Objectives 2017**

- We commissioned and/or completed baseline environmental surveys for blocks in Senegal, Mexico and the UK as part of environment impact assessments
- We assessed potentially sensitive areas as part our new venture Investment Proposals

**Awareness**
Global awareness of biodiversity has increased dramatically in recent years including its link with communities and livelihoods. As a result, there is more understanding of the many issues that threaten it. This places a greater onus on businesses like Cairn to recognise the impact that our activities may have on biodiversity, and to commit to protecting it in the regions where we operate. We also recognise the potential for climate change to impact biodiversity and livelihoods in local communities.

Oil and gas exploration and development activities have the potential to affect biodiversity both on land and in the marine environment. Our commitments and principles related to biodiversity are laid out in our Code of Ethics and our Environment Policy. For example, Cairn does not explore, develop or enter into joint ventures in UNESCO World Heritage sites. Moreover, we take a precautionary approach, believing that where there are threats of serious or irreversible damage, even where such damage is not scientifically certain, cost-effective damage-prevention measures should still be taken.

We take our responsibilities very seriously for all operations that may affect critical habitats, protected areas and/or the welfare of local communities relying on ecosystem services. We undertake extensive due diligence of potential biodiversity impacts, and engage with relevant technical specialists, government departments and non-governmental organisations (NGOs), along with local stakeholders. Such dialogue helps us by guiding our subsequent mitigation activities.

**Early assessment**
Cairn assesses potential biodiversity impacts early on and at all stages of project development, from asset acquisition through to decommissioning. We assess direct impacts as well as the potential cumulative and indirect impacts of operations on biodiversity, and we consider these impacts in the wider context (i.e. beyond the immediate physical footprint of the asset).

This entails an Environmental and Social Impact Assessment (ESIA) and includes consideration of the supply chain for primary products. Any project in which significant potential impacts on biodiversity are identified undergoes additional studies and a formal assessment. These are required to demonstrate how potential impacts will be managed effectively.

We develop asset and site-specific Environmental and Social Management Plans that integrate biodiversity. Cairn also develops Biodiversity Action Plans where there is a significant risk to biodiversity or a measurable benefit for targeted biodiversity conservation action. Cairn ensures appropriate resources and expertise to manage biodiversity risks and impacts, and commissions external specialists as necessary.

When identifying, assessing and managing biodiversity risks and impacts, we follow the requirements outlined in the IFC's Performance Standard 6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources), appropriate national legislation and other internationally accepted good industry practice.

Our Biodiversity Framework sets out a common approach, with processes and deliverables that apply to all Cairn's business and operations in accordance with our Cairn Project Delivery Process (PDP) (see Major Accident Prevention and Safety).

**Our assets**
In 2017 we completed an environmental baseline survey of the areas of interest being considered for well locations in the Rufisque and Sangomar Offshore blocks. Subsequently we commenced an Environmental and Social Impact Assessment using specialist consultants in Edinburgh and Dakar. During 2017 we also commenced planning for benthic surveys (seabed survey for sensitive locations) for projected operations in the UK for Ekland drilling in 2018, and for Mexico as part of the PSC commitment, again using specialist local contractors. This information will be used to support environmental impact work going forward, and in the case of Mexico is required for delineation of impact by previous operators.

Investment Proposals also consider key biodiversity sites before submission to the Board for approval. This helps define risk including the presence of sensitive sites and species well in advance of entry into a new licence or location.

## Our CR Objectives 2018

- Promote high standard of design and performance in our developments
- Complete environmental impact assessments for new operational programmes
- Revise our biodiversity guidelines

## Human Resources

# Helping people to deliver strategy

At Cairn, we believe that our people provide the foundation for our success and we are committed to providing the best possible employee experience. This includes providing a safe, collaborative, positive work environment, recognition of employee contributions, the provision of opportunities for growth and development, and access to the right systems and support to facilitate the delivery of our strategy and annual work programme. Our people initiatives provide a direct link to the achievement of business results and are driven by our High Performing Behaviours and Values of Respect, Relationships and Responsibility (the 3 Rs).

### The 3 Rs

Building **Respect**

Nurturing **Relationships**

Acting **Responsibly**

10 Read more: **Our Culture** on **P10-11**

### Equipping our people with the right systems, processes and skills to design and implement a new enterprise resource platform (ERP)

In 2016, Cairn embarked on a significant piece of work to change our Enterprise Resource Platform (ERP). This was underpinned by the need to move to a single, group-wide platform and a consistent, more efficient and streamlined approach to our practices in Finance, Human Resources and Procurement. Having completed the design work for the new system in December 2016, the focus moved to the system build and testing phases during the first half of 2017 and involved collaboration from across all parts of the business.

The new system went live on 1 August 2017 and initial feedback has been positive. From a human resources perspective, the system has increased the level of self-service capability, both from an employee and managerial perspective. Efficiencies are anticipated to be achieved through the new online processes that have been designed to manage our most common transactions, creating quicker processing times, less paperwork, more accurate record keeping and ease of reporting. From an end-user perspective, the system has an attractive and straightforward interface with added mobile functionality. Its design drives efficiencies in time-writing, expenses and absence management, and consequently reduces time spent on administrative transactions which in turn frees up greater time to focus on more value-add operational activity.

Sinead Uttley, Senior Joint Venture Accountant (North Atlantic)

**People Management Policy Refresh**
Another key project during 2017 was the refresh and re-design of our people management policies. Key to this was the development and roll-out of a new 'Group People Policy', which sets out our overarching people principles covering staff in all of Cairn's offices.

Our People Management Manual contains the individual people policies and procedures that underpin our Group People Policy and sets out how we deliver to the principles and standards to which we are committed.

To support the Group People Policy, we also reviewed and refreshed our individual people policies, for staff across our regional locations. As well as refreshing the existing policies to reflect updates in employment legislation and/or business practice, one of the key aims of the project was to create a single, harmonised framework where policies were applicable to all employees of the Cairn Group wherever they might live or work in the world. Whilst local legislation will prevail, overall, the refreshed policies are designed to ensure that employees have a consistent employment experience. Our aim was to ensure a clear, open and transparent approach to people management within Cairn, as well as equitable and consistent application and compliance with appropriate employment legislation. The policies also support and encourage consistent and good employment practices that help inform and guide day-to-day decisions that impact our people.

Eric Haller, Geological Adviser

**Management Development**
At Cairn, we believe good people management is the key to a high performance culture and to being a high performing organisation. We have high expectations of our people managers' skills in supporting and motivating teams to deliver optimum results.

To support individual and team success, in 2015 we commissioned a tailored personal development programme for our people managers – the 'Management Bootcamp'. This programme was designed to deliver our commitment to develop our people managers, providing them with the practical tools they need to successfully implement Cairn's business objectives through their teams.

By the end of 2017 over 70% of our people managers had participated in the programme, increasing to over 90% expected by the end of Q1 2018.

In terms of evaluation, participants remain enthusiastic with post-attendance feedback continuing to be very positive, as illustrated by the participant quotes in the box below.

While this feedback is encouraging in itself, we also wanted to evaluate and understand the Return on Investment from the programme and identify development areas to include in potential future phases of the programme. To do this, we sought evidence of its impact from a selection of the participating managers as well as a sample of staff across the business who report to them.

Results from both sample groups were overwhelmingly positive. In the survey of participating managers, 100% of participants agreed that the programme had been valuable in developing their management and leadership skills. Similarly, they all agreed that they had been able to apply the key learnings from the programme in their role.

In the survey of staff reporting to participating managers, the results were equally positive. All respondents agreed that their managers were able to build effective inter-personal relationships, work collaboratively, communicate effectively, effectively manage conflict, coach and develop their team, promote a one team culture, create an environment where people are empowered and motivated, and provide appropriate recognition and feedback.

Given the success of the programme, we are committed to progressing to a second phase of the Management Bootcamp during 2018.

**"Was the most useful programme I've ever attended."**

**"Very thought-provoking and enjoyable in an informal and relaxed setting."**

**"Great two days, allowing much needed time to reflect on my management style and how I can develop in this regard."**

**"Very positive. Fresh ideas to think about performance/ behaviours and how to develop team more."**

**"Some new approaches to existing themes. Well-presented and engaging."**

**"Very good refresher of good management practices."**

# **Human Resources** continued

### Training and development

Training and development continued to be encouraged across all parts of the business throughout 2017 and saw a variety of training initiatives undertaken at all levels across the organisation, up to and including Executive Directors. Training took the form of on-the-job assignments, overseas and domestic secondments, attendance at formal training courses and conferences, e-learning modules, coaching, field trips, team conferences, and education assistance to support the study towards formal qualifications.

"During my secondment year in Edinburgh I've been working as part of a large multi-disciplinary operational asset team which has enabled me to learn new skills and be involved in well operations. I have been mentored by experienced team members allowing the development of my geoscience skills, in particular, carbonate sedimentology. The opportunity to follow the drilling of the VR-1 well has given me valuable experience in well operations and post-well evaluation." Charlotte Moss, Geoscientist.

As well as developing a highly competent skills set across the business and supporting the effective delivery of the work programme, the training and development support provided and internal project opportunities afforded to staff have also acted as an aid to internal progression within the Company and have helped support our commitment to promoting from within:

"Cairn has been fantastic at progressing my professional development throughout my career here. As an HSE Advisor, Cairn supported me both financially and with study time in completing my City & Guilds Level 5 Diploma in Health and Safety. Additionally, I had expressed a desire to branch out of the HSE function to wider parts of the business and Cairn facilitated this by carefully planned development opportunities such as my appointment as the gatekeeper for the Unit 4 Enterprise Resource Planning (ERP) Management System implementation project and the appointment as project manager of our Mexico New Country Entry project. Cairn also encouraged and supported me in undertaking an MBA, which I am now almost half-way through. Subsequent to both this education support and internal opportunity provided, I have now been appointed as the Project Planning Manager, initially for the Mexico project. This ensures that projects are approached with a consistent methodology, in line with our internal operating standards, and ensures the team remains fully collaborative throughout the project lifecycle." Jamie Wallace, Project Planning Manager.

While training and development activity was undertaken across the business, it was identified through the Managing Talent Internal Audit in June (see below) that there had been a training budget underspend both for 2016 and 2017. There was also a recognition that greater efficiencies could be made in training needs identification, planning and evaluation across the Group. This will form an area of focus during 2018.

### Succession planning

During October 2017, our Succession Plans for key positions across the Group were presented to the Board of Directors.

We were able to demonstrate our people plans from 2016 had come to fruition as we strategically sourced key talent externally and appointed others internally. It was acknowledged that given the size of our business, succession risks for some specialised roles will exist and the mitigating strategies we have in place will be deployed should a risk materialise. There was unanimous support from the Board to adopt a more stimulating approach to managing our talent in 2018 through continued investment in our leadership and management capabilities and proactively identifying and creating opportunities for those with development aspirations and high potential.

## International Growth and Diversity

Growth in our International portfolio provided an exciting new challenge and opportunity for staff across the Group and this, combined with our ongoing Senegal operations, meant heightened international activity from an organisational and talent perspective.

### New country entry – Mexico

Having successfully applied for and been awarded Blocks 7 (non-operated) and 9 (operated) in the Mexico 2.1 licensing round, a key focus for the business was the related new country entry and establishment of a local presence in Mexico City.

A thorough review was undertaken in order to understand and apply the complex local labour legislation in establishing a Mexican operation. This ranged from the organisational design, identifying key stakeholders, and ensuring the organisational capability to recruit both national and foreign employees into the Mexican entities.

Work has subsequently led to the successful appointment of a Mexican General Manager and establishment of a local office from where operations will be managed.

To facilitate a successful integration into Mexico, Business Culture Awareness sessions were run for staff within the Edinburgh headquarters and several staff who will be closely involved in the Mexican asset going forward are undertaking business-focused Spanish lessons to enhance communications with our in-country team and other stakeholders.

### Local content building – Senegal

As part of our commitment to employing local nationals in the countries in which we operate and building local content capacity, we adjusted our talent management model for the Senegal operation. This involved a move away from a third party staffing model to the direct employment of a core team of national staff within our Dakar office, further enhancing the sense of collaboration and inclusion with the rest of the Cairn Group.

We have also worked in close partnership with our partners, Woodside, to create secondment opportunities in both Dakar and Edinburgh to successfully support the ongoing operations and plan for the future exploitation and development phase of the project.

Safia Alikparah, Finance Operations

## Janice Pentland – Group HR Manager

As Group HR Manager, Janice Pentland acts as overseer of all aspects of employment at Cairn, from the initial hiring phase to the moment a colleague leaves or retires.

"It's my job to ensure that the whole employment experience is as positive as it can be," she says. "From sourcing candidates, to inductions, to appraisals, to career development, we find the right people and provide an exciting and rewarding career experience that helps individuals and the company grow.

It starts with understanding the employment market and where we're likely to source candidates who will be our future employees and leaders. We are conscious of our location in Edinburgh with the major hubs for oil and gas being in Aberdeen or in London, yet the calibre of people that we attract is amazing. We offer exciting opportunities to those entering the industry recognising that technical assistants, for example, will be given opportunities to work alongside our senior and highly experienced geoscientists in a way that majors may not be able to offer.

Then there's induction, where everything from our history to our focus on health and safety, our total reward package and our people policies is discussed. Underpinning all of that, we also share how we do things in Cairn in terms of our values and culture. Our corporate values Respect, Relationships and Responsibility (the 3 Rs) form part of our psychological contract with our people."

Providing clear direction to their employees, Cairn's key performance indicators drive alignment and focus across the Group, departments, project teams and individuals. Janice explains: "We invest time to understand colleagues' training and development needs and source solutions to match. We're really proud that our Geoscientists, for example, typically go on 2 or 3 field trips together each year so that they continue to grow their expertise."

Cairn's employee turnover is relatively low within the industry, being stable at c. 5% – ensuring the company benefits from continued and long-lasting experience, even when colleagues move between roles.

Cairn currently employs around 170 people – although it is structured to enable it to scale up to an additional 150 contractors during major projects such as the drilling campaign in Senegal.

## Diversity Metrics (at year end 2017)

We are committed to equality, diversity and inclusion and understand the importance of a diverse and inclusive workforce in broadening our skill base, bringing different approaches, perspectives and ideas, challenging norms and encouraging creativity, all of which support the business in delivering its strategy.

**48%**

of Cairn staff were women, unchanged from the year before.

**13%**

of Cairn staff worked part-time, up from 10% in the prior year.

**46**

average age at Cairn, compared with age 43 in 2016.

**100%**

of staff returned to work following maternity/paternity/adoption leave; an increase from 88% in the prior year.

**17**

different nationalities were employed at Cairn, one more nationality than in 2016.

**3%**

of the workforce had a disability, compared with 4% in 2016.

**30%**

of management roles were held by women, down very slightly from 33% in the prior year.

**20%**

of the Board were women, compared with (11%) in 2016.

## Assessing our Effectiveness

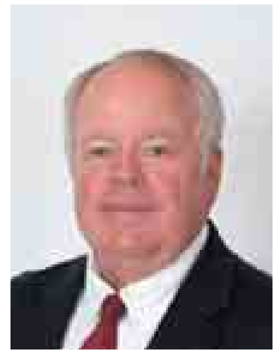
**Managing talent audit**

In June 2017, our internal auditors conducted an audit with the objective of assessing the effectiveness of the processes in place within Cairn to identify current and future key talent requirements and our ability to recruit and/or develop existing talent to meet those requirements. The review also considered processes in place to engage, support and incentivise the current workforce to maximise talent retention, including the effectiveness of knowledge management processes.
The review highlighted a number of positive observations, namely our strength in identifying talent requirements, our high level of geoscience technical competency and skills development, the alignment of our incentives with performance, management and leadership development, and staff engagement. The review also highlighted some recommended areas for improvement in relation to how we could enhance our approach to talent management. Fortunately these did not include any unexpected outcomes and there was no high risk exposure to the business. Of the lower risks identified, one has already been fully mitigated and others are currently being progressed.

This Strategic report has been approved by the Board and is signed on their behalf by.

**SIMON THOMSON**
Chief Executive
12 March 2018

# Board of Directors

| | Executive Directors | | Non-Executive Directors | | |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | **Simon Thomson**<br>Chief Executive<br>(53) | **James Smith**<br>Chief Financial Officer<br>(41) | **Ian Tyler**<br>Non-Executive Chairman<br>(57) | **Todd Hunt**<br>Non-Executive Director<br>(65) | **Iain McLaren**<br>Senior Independent Non-Executive Director<br>(67) |
| **Committee membership** | Senior Leadership Team – Chair<br>Nomination committee<br>Attends remuneration committee by invitation<br>Attends part of each audit committee by invitation<br>Group Risk Management committee | Senior Leadership Team<br>Governance committee<br>Attends audit committee by invitation<br>Group Risk Management committee – Chair | Nomination committee – Chair<br>Governance committee<br>Remuneration committee<br>Attends audit committee by invitation | Attends remuneration committee by invitation | Audit committee – Chair<br>Nomination committee<br>Remuneration committee |
| **Term of office** | Simon was appointed to the Board in November 2006 as Legal and Commercial Director and became Chief Executive in July 2011. | James was appointed to the Board in May 2014 as Chief Financial Officer. | Ian was appointed as an independent non-executive director in June 2013 and became non-executive Chairman in May 2014. | Todd was appointed as an independent non-executive director in May 2003. Given his length of tenure, he is no longer considered to be independent in terms of the UK Corporate Governance Code. | Iain was appointed as an independent non-executive director in July 2008. Iain will retire as a director following the AGM on 15 May 2018. |
| **Independent** | Not applicable | Not applicable | Yes | No | Yes |
| **Skills and experience** | LLB (Hons), Aberdeen University<br>Diploma in Legal Practice, Glasgow University | BA (Hons), University of Oxford | Bachelor of Commerce, Birmingham University | Bachelor of Business Administration, University of Texas | BA in Accountancy and Finance, Heriot Watt University |
| | Simon Thomson was appointed Chief Executive in July 2011 having been Legal and Commercial Director since 2006 and holding various posts across the organisation including head of assets. Simon originally joined Cairn in 1995. | James Smith joined Cairn in March 2014 from Rothschild where he was a director of the energy and power team with 15 years' experience advising E&P companies, oil majors and national oil companies on their M&A transactions and equity and debt market financing. | Ian Tyler qualified as a chartered accountant with Arthur Andersen in 1987, subsequently holding a number of senior finance and operational positions within listed companies before being appointed chief executive of Balfour Beatty plc from 2005-2013. During this time, he took the company from being primarily a UK construction business, to a global infrastructure services business. | Todd Hunt has more than 40 years' experience in the oil and gas industry. He is president and joint owner of Atropos Exploration Company and Atropos Production Company based in Dallas, Texas. | Iain McLaren is a chartered accountant and was formerly senior partner of KPMG in Scotland. He is also a past president of the Institute of Chartered Accountants of Scotland. |
| **Key external appointments** | **Public companies:**<br>None<br>**Non-public companies:**<br>Non-executive director of Graham's The Family Dairy Limited<br>Non-executive director of Edinburgh Art Festival | No external appointments | **Public companies:**<br>Non-executive director of BAE Systems plc<br>Non-executive chairman of Bovis Homes Group PLC<br>**Non-public companies:**<br>Independent chairman of AWE Management Limited<br>Non-executive chairman of Amey PLC (a wholly owned subsidiary of a Spanish listed company) | **Public companies:**<br>None<br>**Non-public companies:**<br>President and joint owner of Atropos Exploration Company and Atropos Production Company | **Public companies:**<br>Chairman of Investors Capital Trust plc<br>Non-executive director of Baillie Gifford Shin Nippon plc<br>Non-executive director of Edinburgh Dragon Trust plc<br>Non-executive director of Ecofin Water & Power Opportunities plc<br>Non-executive director of Jadestone Energy Inc<br>**Non-public companies:**<br>None |

## Alexander Berger

Non-Executive Director (52)

Audit committee

Governance committee

Alexander was appointed as an independent non-executive director in May 2010.

Yes

Masters in Petroleum Engineering, Delft University

MBA Rotterdam School of Management

Alexander Berger is chief executive officer of Oranje-Nassau Energie B.V., a private Dutch exploration and production company based in Amsterdam.

**Public companies:**

None

**Non-public companies:**

Chief executive officer of Oranje-Nassau Energie B.V.

Director of Oranje-Nassau Energie UK Limited

Director of Oranje-Nassau Energy Petroleum Limited

Non-executive director of Discover Exploration Limited

## M. Jacqueline Sheppard QC

Non-Executive Director (62)

Remuneration committee – Chair

Governance committee – Chair

Jackie was appointed as an independent non-executive director in May 2010.

Yes

BA, Memorial University of Newfoundland

BA and MA in Jurisprudence from University of Oxford

LLB, McGill University

Jackie Sheppard was executive vice president, corporate and legal at Talisman Energy Inc from 1993 to 2008 and appointed Queen's Counsel (QC) for the Province of Alberta in 2008.

**Public companies:**

Non-executive chair of Emera Inc.

Director of Seven Generations Energy Corporation

**Non-public companies:**

Founder and lead director of Black Swan Energy Inc.

## Keith Lough

Non-Executive Director (59)

Audit committee

Nomination committee

Governance committee

Keith was appointed as an independent non-executive director in May 2015.

Yes

MA Economics, University of Edinburgh

MSc in Finance, London Business School

Keith Lough is a fellow chartered certified accountant (FCCA) and was Finance Director of British Energy PLC from 2001 to 2004 before becoming a founder shareholder and Chief Executive of Composite Energy Ltd, a privately owned coal-bed methane focused business. He held this post until 2011, when Composite was divested to Dart Energy.

**Public companies:**

Senior independent non-executive director of Rockhopper Exploration PLC

Non-executive chairman of Gulf Keystone plc

**Non-public companies:**

Non-executive director of the UK Gas and Electricity Markets Authority

Chairman of Abacus Geoscience Ltd.

## Peter Kallos

Non-Executive Director (58)

Remuneration committee

Nomination committee

Peter was appointed as an independent non-executive director in September 2015.

Yes

B.Sc (Hons) Applied Physics, Strathclyde University

M.Eng Petroleum Engineering, Heriot Watt University

Peter Kallos has held a number of posts at Enterprise Oil including Head of Business Development, CEO Enterprise Italy and General Manager of the UK business before his appointment in 2002 as Executive Vice President International and Offshore at Petro-Canada. In 2010, Peter became Chief Executive of Buried Hill Energy.

**Public companies:**

Chief Executive of Buried Hill Energy

**Non-public companies:**

None

## Nicoletta Giadrossi

Non-Executive Director (51)

Remuneration committee

Nicoletta was appointed as an independent non-executive director in January 2017.

Yes

BA in Mathematics and Economics, Yale University

MBA, Harvard Business School

Nicoletta Giadrossi spent 10 years at GE where she became General Manager for GE's Oil and Gas, Refinery & Petrochemicals Division. Subsequently, she spent a number of years in private equity ahead of being appointed VP and General Manager, EMEA at Dresser-Rand. She later joined Aker for two years before taking up the role of President (Region A, Europe, Africa, Middle East, Russia & India) at Technip, a role she held from 2014-2016.

**Public companies:**

Non-executive director of Fincantieri S.p.A.

Non-executive director of Brembo S.p.A

Non-executive director of IHS Markit Ltd.

**Non-public companies:**

None

## Corporate Governance Statement

# Operating with integrity at all levels, at all times.

Dear Shareholder,

At Cairn, we operate with integrity at all times, recognising that in doing so the Company will maintain the trust of its many stakeholders. We are committed to working responsibly as part of our strategy to deliver value for all stakeholders and to engaging with our stakeholders on a regular basis, with a clear focus on working in a safe and secure, as well as environmentally and socially responsible manner.

The Cairn Board recognises its important role in promoting high standards of corporate governance and understands that an effective, challenging and diverse Board is essential to enable the Company to deliver its strategy in line with shareholders' and other stakeholders' long-term interests, whilst also generating confidence that the business is conducting itself in an ethical and responsible manner. Further information on our governance, culture, strategy and business model and commitment to working responsibly (including how we engage with our key stakeholders) can be found in the strategic report section of this Annual Report and Accounts.

We remain cognisant of the Financial Reporting Council's valuable work in relation to corporate culture and the important role of boards in influencing and shaping corporate culture. As a relatively small but long established company with fewer than 250 employees, we have a culture based on acting responsibly at all times. This means having the right values, principles and policies in place, that they are embedded throughout the organisation, and that the right people are in place to implement and uphold our values. At Cairn, our culture is underpinned by a core set of values which reflect how we do business and the behaviours expected of our people. We communicate these throughout the business as the three Rs, which stand for Building Respect, Nurturing Relationships and Acting Responsibly (see below).

During the year the Board has also placed much focus on operational delivery and risk management. An open and balanced review of our business performance has been covered in the strategic report on pages 02-79. During the year, the Board regularly discussed our strategic priorities, operational delivery and the associated key business risks and their ongoing management. We provide further information on these activities on pages 40-47 of this report.

### Our core values

**Building Respect**

We build respect by communicating openly with each other and our stakeholders, listening effectively and providing feedback and recognition in a constructive way.

10 Read more: **Our Culture** on **P10-11**

**Nurturing Relationships**

We work closely with our stakeholders – colleagues, local communities, contractors, suppliers, governments, regulators, non-governmental organisations, industry partners and shareholders.

10 Read more: **Our Culture** on **P10-11**

There has also been a continuing focus by both the Board and nomination committee in relation to succession planning, with the aim of assessing the executive, non-executive and senior succession pipeline at Cairn, and identifying what skills are needed to support our strategy and business for the long term. We provide further information in relation to our succession planning in the separate nomination committee report on pages 99-100. This will continue to be a key area of focus for the Board in future years. As reported in last year's corporate governance statement, we further strengthened and diversified our Board through the appointment of Nicoletta Giadrossi as an independent non-executive director in January 2017.

**IAN TYLER**
Chairman
12 March 2018

**"At Cairn, we operate with integrity at all times, recognising that in doing so the Company will maintain the trust of its many stakeholders."**

## Acting Responsibly

We act with honesty and integrity to ensure all our operations are carried out safely and empower our people to achieve their goals and contribute to the wider performance of the business in a responsible manner.

10 Read more: **Our Culture** on **P10-11**

# Corporate Governance Statement
continued

## Board diversity
The mix in our membership.

**Board diversity, by age (years)**

56
average


**Board diversity, by tenure (years)**

6
average


**Board diversity, by nationality**

6:4


**Board diversity, by gender**

8:2


**Compliance with the UK Corporate Governance Code**
As a company incorporated in the UK with a Premium Listing on the London Stock Exchange, Cairn is required to report against the UK Corporate Governance Code (as published by the Financial Reporting Council and available on its website at www.frc.org.uk). This statement reports compliance with the version of the Code published in April 2016.

Cairn is fully committed to achieving compliance with the principles and provisions set out in the Code and the Board is responsible for ensuring that an appropriate framework is in place to do so.

The information in this statement, together with the audit committee report, nomination committee report, directors' remuneration report and directors' report, describe the manner in which the Company has applied the main principles of governance set out in the Code and complied with the individual Code provisions. It is the Board's view that the Company has fully complied with the Code throughout 2017.

**The Board**
Cairn's business is international in scope and carries political, commercial and technical risks. Accordingly, particular attention is paid to the composition and balance of the Board to ensure that it has wide experience of the industry and regulatory environment in which Cairn operates, and appropriate financial, operational and risk management skills. In each Board appointment, whether executive or non-executive, objectivity and integrity, as well as skills, experience, ability and diversity, assist the Board in its key functions, and are prerequisites for appointment. This also applies to senior management appointments below Board level and to our succession planning.

Following the appointment of two non-executive directors in 2015 and one new non-executive director in 2017, the Board currently comprises the Chairman, two executive directors and seven non-executive directors. Iain McLaren will retire as a non-executive director immediately following the AGM to be held on Tuesday 15 May 2018.

The current directors of the Company as at the date of this report are set out in the table below and further information about our directors is included in the board of directors section on pages 80-81.

| Name | Role | Date of appointment (in current role) | Date of last re-election |
|---|---|---|---|
| Simon Thomson | Chief Executive | July 2011 | 19 May 2017 |
| James Smith | Chief Financial Officer | May 2014 | 19 May 2017 |
| Ian Tyler | Non-executive Chairman | May 2014 | 19 May 2017 |
| Todd Hunt | Non-executive director | May 2003 | 19 May 2017 |
| Iain McLaren | Non-executive director | July 2008 | 19 May 2017 |
| Alexander Berger | Non-executive director | May 2010 | 19 May 2017 |
| Jackie Sheppard | Non-executive director | May 2010 | 19 May 2017 |
| Keith Lough | Non-executive director | May 2015 | 19 May 2017 |
| Peter Kallos | Non-executive director | September 2015 | 19 May 2017 |
| Nicoletta Giadrossi | Non-executive director | January 2017 | 19 May 2017 |

The Company considers ongoing refreshment of the non-executive directors on the Board to be positive as it brings new thinking to the Company as well as ensuring there is a healthy level of independent challenge to management and that the Board's collective skills and experience equip it to direct the Company's strategy and meet its business needs as they evolve over time.

The Board is also mindful, however, that an appropriate balance between directors who can bring a new perspective and those who provide continuity is essential for a business like Cairn's. Further information on succession planning at Cairn is included in the nomination committee report on pages 99-100.

Diversity is a key element of the Cairn Board, with emphasis placed not only on gender but also on culture, nationality and experience. The Board currently has two female non-executive directors and continues to demonstrate diversity in a wider sense, with directors from the Netherlands, the USA, Canada, and Italy as well as the UK, bringing a range of domestic and international experience to the Board. The Board's diverse range of experience and expertise covers not only a wealth of experience of operating in the oil and gas industry but also extensive technical, operational, financial, governance, legal and commercial expertise. Further information on diversity within Cairn is included in the nomination committee report on page 100 and in the strategic report section of this Annual Report and Accounts.

**Division of responsibilities between Chairman and Chief Executive**

The Company has a clear division of responsibilities between the Chairman and the Chief Executive, which is set out in writing and agreed by the Board.

| Chairman: key responsibilities | Chief Executive: key responsibilities |
|---|---|
| Leading the running of the Board in an ethical manner and promoting effective Board relationships. | Managing the business and proposing and developing the Company's strategy and overall objectives in consultation with the Board. |
| Ensuring that the Board plays a full and constructive part in the determination and development of the Company's strategy. | Driving the successful and efficient achievement of the Company's KPIs and strategic objectives. |
| Building a well-balanced Board, considering Board composition and Board succession. | Leading the Senior Leadership Team in ensuring the effective implementation of decisions of the Board and its committees. |
| Ensuring the effectiveness of the Board and individual directors. | Providing strong and coherent leadership of the Company and effectively communicating the Company's culture, values and behaviours internally and externally. |
| Overseeing the annual Board evaluation and acting on its results. | Engagement with shareholders and other stakeholders. |
| Ensuring appropriate induction and development programmes for directors. | |
| Setting the Board agenda, chairing Board meetings and overseeing implementation of the Board's decisions. | |
| Engagement with shareholders and other stakeholders when appropriate. | |

**Senior independent director**

Iain McLaren continues to be Cairn's senior independent non-executive director and Peter Kallos will take over this role following Iain McLaren's retirement from the Board in May 2018. The main responsibilities of the senior independent non-executive director are as follows:

- to provide a sounding board for the Chairman and to serve as an intermediary with other directors when necessary;
- to be available to shareholders and other stakeholders if they have concerns which contact through the normal channels of Chairman, Chief Executive or Chief Financial Officer has failed to resolve or for which such contact is inappropriate; and
- to meet with the other non-executive directors without the Chairman present, at least annually, in order to appraise the Chairman's performance.

**Performance evaluation**

The Board continually strives to improve its effectiveness and recognises that the performance evaluation process represents an annual opportunity to enhance overall Board effectiveness.

The Company conducted externally facilitated Board performance evaluations in 2012 and 2015 and plans to conduct the next externally facilitated evaluation in 2018. In 2016, an internal Board performance evaluation was conducted and implementation of the recommendations arising from this have resulted in some efficiency improvements to Board and committee meetings and Board strategy sessions.

This year, in view of the externally facilitated evaluation planned in 2018, it was agreed that another internal Board performance evaluation would be most beneficial to the Company. The Chairman and Company Secretary subsequently discussed how best to facilitate this and it was decided that the Company Secretary should prepare a questionnaire for this purpose.

The questionnaire was approved by the Chairman and this was subsequently completed by all directors to evaluate the performance of the Board, each of its committees, and individual Board members. A separate questionnaire in respect of the Chairman's performance was prepared by the Company Secretary and approved by the senior independent non-executive director.

Following completion of the questionnaires, the Chairman held a series of one-to-one meetings with each of the directors in late November and early December 2017 in order to discuss the outcomes of the evaluation. In addition, the senior independent non-executive director met with the non-executive directors (excluding Ian Tyler) in order to discuss and appraise the performance of the Chairman.

The main action points arising from the 2017 performance evaluation include the following:

| Key actions | Implementation |
|---|---|
| Wider analysis as part of the Board's strategic review. | The Board will consider a broader range of factors influencing Group strategy, such as long-term trends, wider market influences, and different stakeholder interests. |
| Continual improvement of risk management process. | As part of its ongoing responsibility to continually review and improve the Group's risk management process, the Board will look at ways in which it can enhance the quality of its risk assessments. |

As explained above, some improvements have been identified and have already been implemented or will be addressed during 2018.

Following the Board performance evaluation process conducted in 2017, the Board and the Board committees are satisfied that they are operating effectively and that each director has performed well in respect of that director's role on the Board and its committees. The Board believes that all of the directors' performance continues to be effective and that they each demonstrate commitment to their role.

# Corporate Governance Statement
continued

The executive directors also have their performance reviewed by the remuneration committee against the Group KPIs which are set annually (further details of the KPIs can be found in the KPI section on pages 30-32). The 2017 bonuses payable to the executive directors under the Company's cash bonus scheme (described further in the directors' remuneration report on pages 101-127) were linked directly to the Group's performance against these KPIs. As the KPIs set out our strategic objectives, this ensures that executive performance is directly linked to Group strategy.

**Independence of non-executive directors**
The Board considers the independence of each of the non-executive directors on an ongoing basis, taking into account their integrity, their objectivity and their contribution to the Board and its committees. The Board is of the view that the following behaviours are essential for a director to be considered independent:

- provides an objective, robust and consistent challenge to the assumptions, beliefs and views of senior management and the other directors;
- questions intelligently, debates constructively and challenges rigorously and dispassionately;
- acts at all times in the best interests of the Company and its shareholders and other stakeholders;
- has a detailed and extensive knowledge of the Company's business and of the market as a whole which provides a solid background against which they can consider the Company's strategy objectively and help the executive directors develop proposals on strategy; and
- has no close ties or material relationships with the Company, either directly or indirectly.

Having reviewed the independence of each of the non-executive directors against these criteria, the Board concluded that all non-executive directors demonstrated each of the required competencies to a high level and are, therefore, each considered independent by the Board.

The Board recognises that, in view of the characteristics of independence set out in the UK Corporate Governance Code, length of service is an important factor when considering the independence of non-executive directors and that directors having served for longer than nine years may not be considered independent. The Board is, however, satisfied that Todd Hunt's judgement has remained independent and that he has consistently displayed all of the behaviours expected of our independent non-executive directors. Moreover, the Board is of the view that Mr Hunt brings an extremely valuable level of insight and challenge to Board discussions and that his extensive industry experience continues to be of significant benefit to the Company.

**Re-election of directors**
In accordance with the UK Corporate Governance Code, all of the Company's directors are subject to annual re-election by shareholders. As such, each of the directors, other than Iain McLaren, will seek re-election at the AGM to be held on 15 May 2018.

**Induction and development**
New directors receive a full and appropriate induction on joining the Board. This involves meetings with other Board members (in particular the Chairman), senior management and the Company's principal advisers. In addition, new directors are provided with a comprehensive induction pack which contains a wide range of materials including:

| | |
|---|---|
| Board | Board papers and minutes of previous meetings; schedule of matters reserved to the Board; financial delegations of authority; list of Board and committee members and dates of appointment; and schedule of dates for Board and committee meetings. |
| Committees | Terms of reference for all Board committees. |
| Risk | Terms of reference for Risk Management Committee and minutes of last meeting; current Group Risk Matrix and Risk Appetite Statement; FRC Guidance on Risk Management, Internal Control and Related Financial and Business Reporting. |
| Key policies | Cairn Operating Standards, Group Corporate Responsibility Business Principles; Group Code of Ethics; Anti-Bribery-and-Corruption (ABC) Management System; ABC Business Partner Due Diligence Procedure; Dealing Code; Procedures, Systems and Controls for Compliance with the Market Abuse Regulation, the Listing Rules and the Disclosure Guidance and Transparency Rules. |
| Organisation | Group Structure Chart; latest Annual Report and Accounts. |
| Governance | UK Corporate Governance Code; all supporting FRC Guidance; FRC Feedback Statement on UK Board Succession Planning and FRC Report Corporate Culture and the Role of Boards; GC100 Directors' Remuneration Reporting Guidance, ICSA and Investment Association Report on the Stakeholder Voice in Board Decision Making. |
| Legal/regulatory | Memorandum for directors on their responsibilities and obligations as directors. |
| Insurance | Full details of directors' and officers' liability cover. |

The Company also provides, on an ongoing basis, the necessary resources for developing and updating its directors' knowledge and capabilities. In particular, the Company is committed to the provision of continuing professional development training for its directors. In 2017, the Company continued with its practice of providing a directors' education programme consisting of a number of seminars for Board members, which are presented by the Company's external advisers/guest speakers/members of senior management, on subjects appropriate to the Company's business, including changes to legislation, regulation and market practice. During 2017, the subjects covered by these seminars included:

- corporate governance updates from the company secretarial team;
- a 'deep dive' on HSE and the Company's Operating Standards;
- an anti-bribery and corruption update and presentation on the new offence of 'failure to prevent the facilitation of tax evasion' delivered by Pinsent Masons; and
- various asset presentations by senior management.

These seminars are normally held prior to Board meetings and are attended by all directors present at such meetings as well as the Chief Operating Officer and Director of Exploration (the Company keeps a record of attendance). Any director may request that a particular subject is covered in a seminar. In addition, all media articles relating to the Company and all analyst reports relating to the Company are distributed to all directors.

**Information and support**
The Board has full and timely access to all relevant information to enable it to discharge its duties. Under the direction of the Chairman, the Company Secretary is responsible for ensuring good information flows within the Board and its committees and between management and non-executive directors, as well as facilitating induction and assisting with professional development as required. The Company Secretary ensures the presentation of high quality information to the Board and its committees and that all papers and information are

delivered in a timely fashion. Board and committee papers are delivered securely through an electronic platform.

The Company Secretary and Deputy Company Secretary are responsible for advising the Board, through the Chairman, on all corporate governance matters, and each director has access to the advice and services of the Company Secretary and Deputy Company Secretary. The governance committee also supports the Board in relation to corporate governance matters and further information on the role of this committee is provided on page 90.

There is also a procedure agreed by the Board for directors, in furtherance of their duties, to take independent professional advice if necessary, at the Company's expense.

**Conflicts of interest**

The Board has in place a procedure for the consideration and authorisation of conflicts or possible conflicts with the Company's interests. All directors are aware of the requirement to submit details to the Company Secretary or Deputy Company Secretary of any current situations (appointments or otherwise) which may give rise to a conflict, or potential conflict, of interest. The Board will continue to monitor and review potential conflicts of interest on a regular basis.

**Matters reserved to the Board and delegation of authority**

The Board has a formal schedule of matters specifically reserved to it for decision, which is divided into categories covering different types of decisions, including: corporate; Board/directors; financial/operational; and legal/regulatory.

By way of example, some of the matters which the Board considered and/or approved during 2017 and Q1 2018 were:

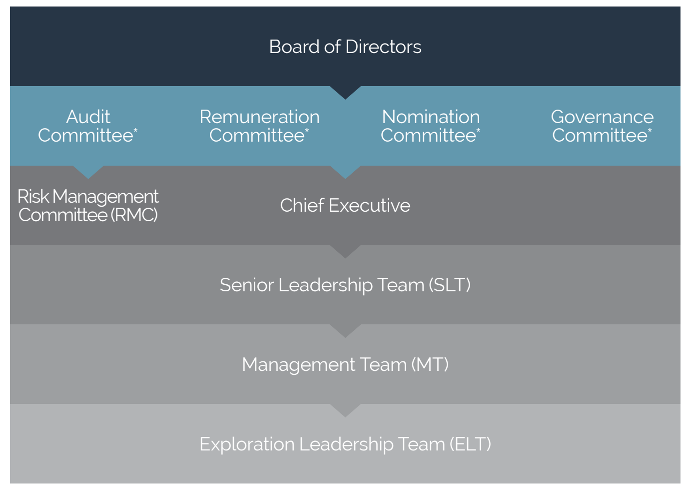
| Corporate | Board/Directors |
|---|---|
| The Company's 2016 Annual Report and Accounts and 2017 Half Yearly Report | The appointment of a new non-executive director |
| The Company's 2017 AGM circular | Appointments to Board committees |
| The Company's Risk Appetite Statement | Detailed review of succession planning |
| **Financial/Operational** | **Legal/Regulatory** |
| The appropriateness of the Group going concern sign-off for the 2016 full year accounts and 2017 interim accounts | Oversight of the arbitration process seeking resolution of the Indian tax issue |
| The Company's viability statement | |
| The Company's annual work programme and budget | |
| Group Reserves and Resources | |
| Senegal exploration and appraisal drilling | |
| New country entry to Mexico | |

In addition to the above, the Board conducts an annual review of the effectiveness of the Company's internal controls (with ongoing monitoring of this throughout the year); an annual detailed strategy meeting; and an annual 'deep dive' session on risk management.

The Board also has an approved set of financial delegations of authority to ensure clarity throughout the business concerning the distinction between financial matters which require Board approval and those that can be delegated to senior management.

The senior executive management structure at Board level and beneath remains unchanged from that disclosed in last year's corporate governance statement, with the Senior Leadership Team (SLT) and Management Team (MT) continuing to play a key role in supporting the Board.

**Board and Management Committee Structure**




* Further information on our Board committees is contained later in this statement and in the separate audit committee report, nomination committee report and directors' remuneration report.

The SLT comprises the Chief Executive, the Chief Financial Officer, the Chief Operating Officer (COO), the Director of Exploration, the Director, Corporate Affairs, the Company's two Regional Directors and the General Manager, Senegal. The SLT is chaired by the Chief Executive and meets six times per year with those meetings scheduled in advance of Board meetings.

Key elements of the SLT's role include the following:

- devise and generate the Company's strategy to be proposed to the Board for approval and implement and communicate this strategy across the business;
- implement the business plan, the key performance indicators and annual work programme and budget following their approval by the Board;
- consider business development and new venture projects prior to submitting these to the Board; and
- provide leadership and guidance to the Company on vision, strategy, culture, corporate governance, corporate responsibility and HSE matters.

The members of the SLT are also members of the RMC, which identifies and reviews key business risks – further information on the role of the RMC is contained in the internal control section of this statement on page 91.

The MT comprises the COO (chair), the Director of Exploration, the Deputy Finance Director, two Regional Directors, the General Manager, Senegal, the Group Well Engineering Manager and four functional managers (Human Resources Manager, Legal Manager, HSE Manager and Business Development and New Ventures Manager).

The MT meets formally six times per year with four of those meetings focusing on a quarterly performance review of the business.

# Corporate Governance Statement
continued

The key elements of the MT's role include the following:

- develop and implement a Business Plan, which will deliver the Company's strategic objectives (these will be reflected in annual KPIs, including HSE);
- critically assess and determine the mitigation plans for key business risks and ensure that all risks are captured and reviewed regularly in the Company's risk register;
- co-ordinate operations and licence management along with resource allocation and organisational alignment to ensure timely and cost-effective delivery against approved budgets;
- oversight of the company's commitment to working responsibly; and
- review and approve the Company's Operating Standards.

The Exploration Leadership Team (ELT), which is chaired by the Director of Exploration, comprises the Group Geoscience Manager, the Chief Geologist, the Chief Geophysicist, three regional Exploration Managers and a representative from new ventures/new business.

The ELT meets on a monthly basis to facilitate alignment, consistency, best practice and team work in the following areas:

- ensuring exploration, appraisal and new venture opportunities align with the Company's Business Plan;
- ensuring consistent screening and ranking of exploration opportunities prior to detailed assessment, thereby utilising the significant knowledge and experience of the ELT;
- developing and implementing new geosciences technology and techniques where appropriate for application within the Company to reduce subsurface uncertainty and/or risks; and
- ensuring appropriate representation at resource assessment reviews and other internal subsurface peer reviews.

**Board meetings**
During 2017, six scheduled meetings of the Board were held, with all of these meetings taking place over two consecutive days. The first day includes a Chief Executive's lunch with the non-executive directors and (when applicable) a Board education session, followed by a report from the CEO and CFO and a management presentation, both of which form part of the formal business of the Board meeting.

The CEO and CFO report and management presentation provide a detailed update from senior management on key projects, assets or matters to be considered at the Board meeting, allowing an excellent opportunity for a technically rigorous discussion. This information allows the Board to more fully understand any risks or challenges to the business plan and strategy and also provides good exposure to the executive pipeline of talent within the Company.

The full Board then meets for dinner at the end of the first day, and is often joined by other members of senior management, including the Exploration Director and COO.

Board committee meetings are normally held on the second day or, depending on the number of committee meetings required, on both days. All Board committee meetings take place prior to the main part of the Board meeting so that the chair of each committee can provide a report to the Board. These are followed by the formal business of the Board meeting and a Board lunch. The Chairman also holds a short meeting with the other non-executive directors (without the executive directors) at the end of each day.

Three of the Board meetings during 2017 were held at the Company's registered office in Edinburgh, and three were held at the Company's office in London. Details of attendance at each of those Board meetings, and at meetings of each of the Board committees, are set out in the table opposite. Any director who is physically unable to attend Board and committee meetings is given the opportunity to be consulted and comment in advance of the meeting by telephone or in writing. Video and telephone conferencing facilities are used in the unlikely event that directors are not able to attend meetings in person.

The annual timetable for Board and committee meetings is discussed at least 18 months prior to its commencement allowing the directors to plan their time accordingly. The Board and committees have agreed dates for all scheduled meetings in 2018 and 2019. This process ensures that the Chairman can be comfortable that each director is able to devote sufficient time and resources to their role on the Board and, where relevant, its committees.

The formal agenda for each scheduled Board meeting is set by the Chairman in consultation with the Chief Executive and the Company Secretary. The system for establishing agenda items means that the Chairman, the Board and each of the board committees have the confidence that all required items are included on their agenda at the most appropriate time of the year and that there is sufficient time allocated for discussion, allowing the directors to discharge their duties effectively.

Formal minutes of all Board and committee meetings are circulated to all directors prior to the next Board meeting and are considered for approval at that Board meeting. In addition, the members of the Board are in frequent contact between meetings to progress the Group's business, one example being an annual Board update call in January ahead of the scheduled Board meetings for the year. There is also a procedure in place to allow Board meetings to be convened at short notice where required to deal with specific matters which need to be considered between scheduled Board meetings.

As noted above, the non-executives have a practice of meeting informally after each Board meeting without executive directors being present. At these non-executive forums, the non-executive directors are invited by the Chairman to bring forward any matter pertaining to the business of the Board that they believe would benefit from discussion in such forum. This practice also applies after Board committee meetings (in particular the audit, remuneration and nomination committees) to ensure that non-executive directors can discuss any relevant issues arising from those meetings without executive management being present.

**Directors' attendance at Board and committee meetings**

The table below sets out the attendance record of each director at scheduled Board and Board committee meetings during 2017.

| | Board | Audit Committee | Remuneration Committee | Nomination Committee | Governance Committee |
|---|---|---|---|---|---|
| Meetings held during 2017[1] | 6 | 4 | 4 | 2 | 2 |
| | Meetings attended | Meetings attended | Meetings attended | Meetings attended | Meetings attended |
| **Executive Directors** | | | | | |
| Simon Thomson (Chief Executive) | 6 | n/a[2] | n/a[2] | 2 | n/a |
| James Smith (CFO) | 6 | n/a[3] | n/a | n/a | 2 |
| **Non-Executive Directors** | | | | | |
| Ian Tyler (Chairman) | 6 | n/a[4] | 4 | 2 | 2 |
| Iain McLaren (Senior Independent Director) | 6 | 4 | 4 | 2 | n/a |
| Todd Hunt | 6 | n/a | n/a | n/a | n/a |
| Alexander Berger | 6 | 4 | n/a | n/a | 2 |
| Jackie Sheppard | 6 | n/a | 4 | n/a | 2 |
| Keith Lough | 6 | 4 | n/a | 2 | 2 |
| Peter Kallos | 6 | n/a | 4 | 2 | n/a |
| Nicoletta Giadrossi | 6 | n/a | 4 | n/a | n/a |

Notes:

n/a not applicable (where a director is not a member of the committee).

(1) During 2017, certain directors who were not committee members attended meetings of the audit committee, remuneration committee, nomination committee and governance committee by invitation. These details have not been included in the table.

(2) Simon Thomson is not a member of the remuneration committee but attends its meetings by invitation (other than parts of meetings where he would be conflicted). Mr Thomson also attends part of each audit committee meeting by invitation (to participate in discussions on risk and internal control only).

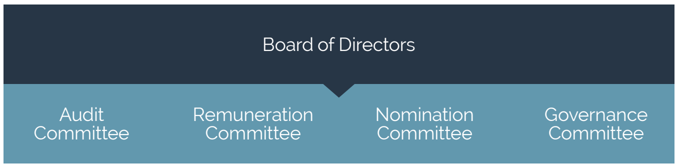
(3) James Smith is not a member of the audit committee but attends its meetings by invitation.

(4) Ian Tyler is not a member of the audit committee but attends its meetings by invitation.

# Corporate Governance Statement
continued

## Board committees

### Board committee structure




The Board has established an audit committee, a remuneration committee, a nomination committee and a governance committee, each of which has formal terms of reference approved by the Board. Copies of the terms of reference, which satisfy the requirements of the UK Corporate Governance Code, are available on the Company's website.

Each of the Board committees is provided with all necessary resources to enable them to undertake their duties in an effective manner. The Company Secretary acts as secretary to all Board committees with the exception of the audit committee, where the Deputy Company Secretary undertakes this role. The minutes of all committee meetings are circulated to all directors.

In line with best practice, more detailed reports from the audit and nomination committees are presented as separate reports (on pages 94-100) rather than including these in the corporate governance statement. In addition, full details of the Company's remuneration policy are given in the separate directors' remuneration report on pages 101-127.

### Audit committee

The members of the audit committee during the year were as follows:

- Iain McLaren (Chair);
- Alexander Berger; and
- Keith Lough.

The audit committee met four times during 2017 and currently comprises three independent non-executive directors. The Chairman is not a member of the committee but attends its meetings by invitation. Further information on the role, responsibilities and work of the audit committee is included in the audit committee report on pages 94-98.

### Remuneration committee

The members of the remuneration committee during the year were as follows:

- Jackie Sheppard (Chair);
- Iain McLaren;
- Ian Tyler;
- Peter Kallos; and
- Nicoletta Giadrossi.

The remuneration committee met four times during 2017 and currently comprises five independent non-executive directors. The Chief Executive is not a member of the committee but attends its meetings by invitation. The committee's remuneration advisers, New Bridge Street, also attended some of the committee's meetings. None of the members of the committee, nor the Chief Executive nor the Chairman, participated in any meetings or discussions relating to their own remuneration. The committee has established a practice of meeting informally without any executive directors or advisers present after each committee meeting to allow the non-executives to discuss any matter which has arisen in the meeting (or relating to the duties of the committee) which they believe would benefit from discussion in such forum.

Further information on the role, responsibilities and work of the remuneration committee is included in the directors' remuneration report on pages 101-127.

### Nomination committee

The members of the nomination committee during the year were as follows:

- Ian Tyler (Chair);
- Iain McLaren;
- Simon Thomson;
- Keith Lough; and
- Peter Kallos.

The nomination committee met twice in 2017. The Chairman and three of the Company's independent non-executive directors are members of the committee. In addition, to ensure continuing executive input on nomination matters, the Chief Executive is also a member of the committee.

Further information on the role, responsibilities and work of the nomination committee is included in the separate nomination committee report on pages 99-100.

### Governance committee

The members of the governance committee during the year were as follows:

- Jackie Sheppard (Chair);
- Alexander Berger;
- Ian Tyler; and
- James Smith.

The governance committee met twice in 2017 and is comprised of a majority of non-executive directors. In addition, to ensure continuing executive input on governance matters, the CFO is also a member of the committee.

The role of the governance committee includes:

- reviewing and approving changes to the Board's corporate governance practices and policies;
- monitoring the Company's compliance with the UK Corporate Governance Code and with all applicable legal, regulatory and listing requirements; and
- reviewing developments in corporate governance generally and advising the Board periodically with respect to significant developments in the law and practice of corporate governance.

## Relations with shareholders

Communications with shareholders are given high priority by the Board. The Company has implemented the provisions of the Companies Act 2006 regarding electronic communication with its shareholders, in order to give shareholders more choice and flexibility in how they receive information from the Company. Cairn responds promptly to correspondence from shareholders and launched a new Company website during 2017, which contains a wide range of information on the Company, including a dedicated investor relations section.

In order to ensure that the members of the Board develop an understanding of the views of major shareholders, there is regular dialogue with institutional shareholders, including meetings with executive management after the announcement of the year-end and half-yearly results. The Chairman is available to attend a number of these meetings. The Board is kept informed of any issues raised by shareholders both as a standing agenda item in Board papers and through feedback at Board meetings and following results or other significant announcements. In addition, the Company maintains an

| AGM Details (2017 and 2018) | Overview |
|---|---|
| 2017 AGM: held on Friday 19 May 2017<br>The Caledonian Waldorf Astoria Hotel, Edinburgh | • Full director attendance.<br>• At least 96.70% of votes received for the re-election of all directors.<br>• Highest votes in favour: 99.99% for five resolutions.<br>• Lowest votes in favour: 96.46% to approve the directors' remuneration report. |
| 2018 AGM: to be held on Tuesday 15 May 2018<br>The Caledonian Waldorf Astoria Hotel, Edinburgh<br>(full details in Notice of AGM) | • Full director attendance expected<br>• 15 Ordinary Resolutions and 4 Special Resolutions being proposed to shareholders. |

investor relations database which details all meetings between the Company and its investors or other related stakeholders. All analyst reports relating to the Company are also distributed to the Board.

A list of the Company's major shareholders can be found in the Directors' Report on page 130. The Company recognises that the success of the comply-or-explain approach under the UK Corporate Governance Code depends on an ongoing and open dialogue with shareholders, and remains committed to communicating with shareholders, as well as proxy voting agencies, on any matter which they wish to discuss in relation to the Company's governance.

**Annual General Meeting (AGM)**
The Board uses the AGM to communicate with private and institutional investors and welcomes their participation. It is policy for all of the directors to attend the AGM. Whilst this may not always be possible for business or personal reasons, in normal circumstances the chair of each of the Board committees will be available to attend the AGM and be prepared to answer questions.

As part of our commitment to transparency we look to involve shareholders, as one of our key stakeholders, fully in the affairs of the Company and to give them the opportunity at the AGM to ask questions about the Company's performance and activities. Details of resolutions to be proposed at the AGM on 15 May 2018 can be found in the Notice of Annual General Meeting which is contained in the shareholder circular posted with this Annual Report and Accounts. Further explanation of each of the resolutions can also be found in the circular.

The proxy votes for and against each resolution, as well as abstentions, will be counted before the AGM and the results will be made available following the meeting after the shareholders have voted in a poll on each resolution. Both the Form of Proxy and the poll card for the AGM include a "vote withheld" option in respect of each resolution, to enable shareholders to abstain on any particular resolution. It is explained on the Form of Proxy that a "vote withheld" is not a vote in law and will not be counted in the calculation of the proportion of the votes "for" or "against" a resolution.

**Information pursuant to the Takeover Directive**
The Company has provided the additional information required by the Disclosure and Transparency Rules of the UK Listing rules (and specifically the requirements of DTR 7.2.6 in respect of directors' interests in shares; appointment and replacement of directors; powers of the directors; restrictions on voting rights and rights regarding control of the Company) in the Directors' Report.

**Internal control**
The Board has overall responsibility for the Group's system of internal control, which includes all material controls, including financial, operational and compliance controls and related risk management, and for regularly reviewing its effectiveness. The system of internal control is designed to identify, evaluate and manage significant risks associated with the achievement of the Group's objectives. Because of the limitations inherent in any system of internal control, Cairn's system is designed to meet its particular needs and the risks to which it is exposed, with a focus on managing risk rather than eliminating risk altogether. Consequently it can only provide reasonable and not absolute assurance against material misstatement or loss.

The Company has in place an Integrated Internal Control and Assurance Framework (the "framework"), which plays a critical role in setting out how the Company manages and assures itself that the risks relating to the achievement of corporate vision, strategy and objectives are effectively controlled. The framework is based on the Committee of Sponsoring Organisations (COSO) framework and its five key components, which is a commonly used and recognised framework for considering internal control systems. The COSO framework, which was first released in 1992 and updated in 2013, seeks to help organisations develop systems of internal control which help facilitate the achievement of business objectives and improvements in Company performance. The framework also supports organisations in adapting to increasingly complex business environments and managing risks to acceptable levels with the aim of safeguarding shareholders' interests and Company assets.

The framework has been in place for the 2017 financial year and up to the date of approval of the annual report and accounts. The Board, supported by the audit committee, has carried out a review of the effectiveness of the system of internal controls during 2017 and will ensure that a similar review is performed in 2017. In so doing, the Board and audit committee took into account the assurance provided by the Chief Executive in respect of the effectiveness of the Group's system of internal control. The Board is accordingly satisfied that effective controls are in place and that risks have been mitigated to a tolerable level across the Group in 2017.

Cairn seeks to create value through oil and gas exploration and production while at the same time safeguarding the environment and respecting and contributing to the communities it is a part of. In order to achieve this, Cairn's core values of building respect, nurturing relationships and acting responsibly are at the core of the business, informing how the Company operates. These values are promoted to Cairn's employees, partners and contractors. Cairn's licence to operate depends on transparent relationships and active stakeholder engagement programmes with our many stakeholders including governments, communities, partners, shareholders and suppliers globally. The directors believe that this commitment to strong governance generates trust and ensures consistent global standards and is critical to the Company's success.

# Corporate Governance Statement
continued

Particular attention has been placed by the Company's management during 2017 on ensuring that an effective system of internal control has been maintained during the year in relation to the key risks in the Company's business activities. Enhancements have been made during 2017 to the following key controls, business processes and procedures:

- the Group Code of Business Ethics and Group Business Principles were combined to form one document. The new 'Code of Ethics' communicates the principles and standards of business ethics and conduct which we expect from all staff and those who work with Cairn;
- the suite of policies and procedures which form the Group's Corporate Responsibility Management System (CRMS) were enhanced to achieve continued alignment with the Cairn Operating Standards and the latest International Association of Oil and Gas Producers (IOGP) guidance;
- the Group's anti-bribery and corruption standards and procedures were enhanced to reflect current best practice and lessons learned from prior operations. Training on this was rolled out to selected staff by e-learning in Q4 2017;
- the Group Business Continuity Plan was revised in 2017 to capture some lessons learned from a business continuity test exercise which was completed in Q4 2017; and
- a new Enterprise Resource Planning (ERP) solution was implemented across the Group in Q2 2017. The new ERP solution provides a single global ERP platform for Cairn, facilitating consistent, transparent processes in Edinburgh, Stavanger, Dakar and London.

The following describes the key elements of the framework and the processes used by the Board during 2017 to review the effectiveness of the system and the approach to be taken in 2018.

**1. Strategic Direction**
The Company's strategy and business plan are proposed by the SLT and approved by the Board. The Chief Executive is responsible for managing the Company's business and implementing the Company's strategy and overall commercial objectives in consultation with the Board and SLT. The Chief Executive is also responsible for implementing the decisions of the Board and its committees and driving performance against the Company's KPIs.

**2. Operating Management**
The Company operates three regional units covering different countries and assets and with various partners on both an operated and non-operated basis. The assets within each region are the principal focus for our regional managers, who are tasked with delivering the strategic objectives for their particular region, with a combination of operational and technical teams as well as functional departments providing support to each of the assets. The implementation of the Cairn Operating Standards supports this process, providing assurance, standards and consistency in the delivery of our strategic objectives.

The executive directors continue to be supported by the SLT as well as by the MT and ELT. Further information on the composition of these teams and their remit can be found earlier in this statement on pages 87-88. There are also a number of functional department heads whose roles include providing expert input and challenge to the Company's work programmes, budgets and business plans; and supplying the directors with full and accurate information with which to make statements on the adequacy of internal control.

The Company refreshes its Business Plan, work programme and budget on an annual basis in line with its overall strategy. These documents start at asset level before being consolidated at regional and Company levels. The Business Plan sets out detailed objectives and KPIs for each asset and supporting functional departments, and is consolidated into the Company's strategic planning. After an iterative process, the annual Business Plan, work programme and associated budget are presented to the Board for approval.

The asset management teams then have the required authority to implement the Business Plan and to deliver the agreed work programmes within the approved budget and delegations of authority, and in accordance with the internal control framework.

**3. Risk Management**
The Board is responsible for maintaining sound risk management and internal control systems across the Cairn Group. The Board must satisfy itself that the significant risks faced by the Group are being managed appropriately and that the system of risk management and internal control is sufficiently robust to respond to internal or external changes in the Group's business environment.

The RMC continues to be responsible for the development of risk management strategy and processes within the Company and for overseeing the implementation of the requirements of this strategy. It does this by ensuring that the framework for the identification, assessment, mitigation and reporting on all areas of risk is fit for purpose and that appropriate assurance arrangements are in place in relation to these risks to bring them within the Risk Appetite Statement agreed by the Board.

To supplement the role of the RMC, the Group Risk Management Procedure defines the processes through which Cairn seeks to systematically identify, analyse, assess, treat and monitor the business risks faced by the Group. The Group Risk Management Procedure also identifies the risk management organisational structure through which business risks are managed and regularly reviewed at operating, asset, country and Company levels. Asset, project, country and functional level risk registers are used to capture, assess, monitor and review risks before the principal risks are consolidated into the Group Risk Register.

In 2017, risk management updates were presented at each Board meeting and as part of an annual process, the Board undertook a strategic risk workshop which analysed the key threats and opportunities which could impact on achievement of the Group's strategic objectives. The focus of the 2017 workshop was current and future threats and opportunities in Senegal. This was completed in November 2017.

The RMC, which meets on a quarterly basis, is currently chaired by the CFO and comprises the executive directors and senior functional management. The internal auditor also attends RMC meetings, in order to ensure internal audit's integration with the risk management process. Regular MT risk meetings were also held during 2017 to manage and facilitate the assessment and treatment of business risks that may affect the Company's ability to deliver its strategy.

Enhancements to our approach to risk management during 2017 included the following:

- with the support of the Group's internal auditor, extensive risk management training was rolled out to key staff across all assets and functions. The training covered all elements of the Cairn risk management framework;
- enhancements were made to the process for identifying and assessing risks, with a greater focus on the means by which risks are managed to an acceptable level; and
- a new share-point risk management solution was developed and implemented across the Group, with all risk management registers now readily accessible through this.

The RMC reports on the Company's risk profile to both the audit committee and the Board. Additionally, the audit committee and the Board receive internal reviews of the effectiveness of internal controls relative to the key risks. The conclusion of the Board following these reviews during 2017 is that the internal controls in respect of key risks are effective.

**4. Assurance**

The "three lines of defence" framework adopted by the Board provides three levels of assurance against the risks facing the Company: first of all at the operational level; secondly through overview by functional management and the RMC; and thirdly through internal, external or joint venture audits.

The integrated internal control and assurance framework document includes a description of the Company's business and assurance models and of its organisation and committee structure, and defines the relevant roles and responsibilities. The framework defines the key policies and procedures which govern the way in which Cairn conducts its business and is therefore a core part of its system of internal control.

During 2017, the directors reviewed the effectiveness of the Company's system of financial and non-financial controls, including operational and compliance controls, risk management and high-level internal control arrangements through the completion of internal control self-assessment questionnaires. These questionnaires, which are tailored to each region or function, are designed to provide an internal assessment of the effectiveness of key controls for the Group's principal risks.

Additionally, assurance maps for the principal risks are being developed, which outline the key sources of assurance across the three lines of defence. The three lines of defence model is a method of assessing different sources of assurance the Group can rely on when analysing key risks and controls. Assurance is gained through the application of the business management system which directs the day-to-day running of the business (first line), the oversight functions within Cairn which provide challenge to the risk and control environment (second line) and any third party reviews the Group instructs to assess the status of a risk/control (third line). The assurance maps help identify potential areas of control weakness and/or ineffective use of assurance resources across the Group, which has influenced the topics included in the 2017 Internal Audit Plan.

The Directors derived assurance from the following internal and external controls during 2017:

- a regularly updated schedule of matters specifically reserved for a decision by the Board;
- implementation of policies and procedures for key business activities;
- an appropriate organisational structure;
- control over non-operated joint venture activities through delegated representatives;
- specific delegations of authority for all financial transactions and other key technical and commercial decisions;
- segregation of duties where appropriate and cost-effective;
- business and financial reporting, including KPIs;
- functional management reviews;
- an annual "letters of assurance" process, through which asset and functional managers review and confirm the adequacy of internal financial and non-financial controls and their compliance with Company policies, and report any control weaknesses identified in the past year and actions taken in respect of weaknesses identified in the prior year;
- a "letter of assurance" from the Chief Executive confirming the adequacy of internal controls within the Company in line with its policy, and reporting of any control weaknesses identified in the past year and actions taken in respect of weaknesses identified in the prior year;
- an annual internal audit plan, which is approved by the audit committee and Board and is driven by risks and key controls;
- reports from the audit committee and RMC;
- reports from the external auditor on matters identified during its statutory audit;
- reports from audits by host governments and co-venturers;
- independent third party reviews; and
- the skills and experience of all employees.

**IAN TYLER**
Chairman
12 March 2018

# Audit Committee Report

## The Audit Committee

### Members and meetings in 2017

The audit committee continued to support the Board in its responsibilities which include setting the Company's strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship.

| Members and meetings in 2017 | Member since | Meetings attended |
|---|---|---|
| Iain McLaren (Chair) | 07/08 | |
| Alexander Berger | 03/12 | |
| Keith Lough | 05/15 | |

Dear Shareholder,

With production commencing in the North Sea and the completion of the latest exploration and appraisal programme in Senegal, the committee's fulfilment of its responsibilities, which include the integrity of the Group's financial statements, the effectiveness of the Group's risk management and internal assurance processes and related governance and compliance matters, focused on the key areas impacting the business in the year.

**Composition and summary of audit committee meetings during the year**

During the year under review, I served as Chair of the audit committee alongside two of my fellow non-executive directors; Alexander Berger and Keith Lough. Both Alexander and Keith are considered by the Board to be independent. Ian Tyler also attended meetings in his capacity of Chairman of the Cairn Energy PLC Board but is not a member of the committee.

The members of the committee have been chosen to provide the wide range of financial and commercial experience needed to fulfil these duties. Keith and I are qualified accountants with recent and relevant financial experience. Alexander brings comprehensive industry knowledge to the committee. Keith will take over as Chair in May 2018 as my nine-year membership of the committee concludes following the 2017 year end.

At our request, the CFO, the Chief Executive (in his capacity of Chair of the Group's Risk Management Committee) and senior members of the Finance and Risk and Compliance departments attended each of these meetings. Additionally, both internal and external auditors also attended each meeting. I also regularly met privately with the external audit partner to discuss matters relevant to the Group throughout the year.

The audit committee met four times in 2017, with meetings arranged around the key external reporting dates. The first meeting in March 2017 focused on the 2016 year-end external audit process (reported in the 2016 Annual Report and Accounts). Meetings in June and August both centred on the Group's half-year reporting and a December meeting focussed on planning for the 2017 year end cycle and external audit process and internal work programme for 2018. Subsequent to the year end, a further meeting was held in March 2018 to conclude on the 2017 audit and significant issues.

At each meeting the committee receives an updated report from the external auditors which either explains their plans and scope for a forthcoming audit or review, or contains the conclusions from that audit or review. The audit committee also receives a report on the internal audit process, tracking the progress of internal audits and reviewing their output and recommendations.

The audit committee also closely monitors Cairn's Risk Management system, reviewing the activities of the Group's Risk Management Committee and the Group's risk management project plan with further reviews and challenges of the Group's risk registers and opportunity matrix at each committee meeting.

Other business covered by the committee includes the annual approval of corporate assumptions and annual review of, the Group's policy on non-audit services and the Group's Whistleblowing Policy. The latter two were refreshed during the current reporting cycle.

**FRC Corporate Reporting Review**

As explained in my report last year, the FRC's Conduct Committee raised a number of points on the Company's 2015 Annual Report. At the time of writing last year, the committee was aware of continuing communication with the FRC seeking additional detail on the Company's assessment on the impact of climate change and further clarification regarding the Group's tax disclosures in that year. I am pleased to report that, following further clarification from the company, the FRC's review was subsequently concluded, with no further action required by the Company. The Company did undertake to consider the level of tax disclosure required to understand the key issues impacting the Group's tax position and enhanced disclosures are included in this year's financial statements.

**Responsibilities and activities during the year**

The Terms of Reference of the committee take into account the requirements of the UK Corporate Governance Code and are available for inspection on the Group's website. A summary of the committee's principal responsibilities and activities during the year is set out below.

| | Principal responsibilities of the committee: | Key areas formally discussed: |
|---|---|---|
| **Financial statements** | • Monitoring the integrity of the financial statements of the Group and formal announcements relating to the Group's financial performance;<br>• reviewing any significant financial reporting judgements; and<br>• reviewing the appropriateness of accounting policies, their consistent application and disclosures in financial statements. | • Going concern conclusions and linkage to the viability statement;<br>• significant accounting issues at the interim and year end (see below); and<br>• approval of the Group's corporate assumptions (those impacting impairment testing are summarised in section 2 of the financial statements). |
| **External audit** | • Overseeing the Group's relationship with the external auditors, including:<br>– making recommendations to the Board as to the appointment or reappointment of the external auditors;<br>– reviewing their terms of engagement and engagement for non-audit services; and<br>– monitoring the external auditors' independence, objectivity and effectiveness. | • Reviewing the external auditor's scope and audit plan for the 2017 year-end;<br>• discussing the materiality levels set by the auditors;<br>• approval of the auditor's remuneration;<br>• consideration of the results of the external audit with the auditors and management; and<br>• assessment of the effectiveness of the external audit (see below). |
| **Internal risk management and assurance** | • Reviewing the Group's internal financial controls and internal control and risk management systems and oversight of the Group's Risk Management Committee; and<br>• monitoring and reviewing the effectiveness of the Group's internal audit function. | • Reviewing the Group's corporate and operational risk register;<br>• reviewing reports on the activities of the Risk Management Committee;<br>• selection of internal audit work planned for 2018 and consideration for future years; and<br>• assessment of key findings raised from internal audits conducted in the year. |
| **Whistleblowing procedures** | • Reviewing the Group's whistleblowing procedures and ensuring that arrangements are in place for the proportionate and independent investigation of possible improprieties in respect of financial reporting and other matters and for appropriate follow-up action. | • Reviewing and approving of the Group's updated whistleblowing procedures. |
| **Other matters** | • Reviewing the Group's policy for approval of non-audit work to the Company's auditors; and<br>• reviewing booking of Group reserves and resources. | • Review and approval of the Group policy for approval of non-audit work to the Company's auditors; and<br>• classification of reserves and resources for disclosure in the Annual Report. |

The review of the Annual Report and Accounts for fair, balanced and understandable presentation and disclosure, while considered by the Audit Committee, is formally performed and approved by the full Cairn Energy PLC Board.

**External audit**

The current version of the UK Corporate Governance Code states that FTSE 350 companies should put the external audit contract out to tender at least every ten years. Cairn complied with this provision before it came into force and completed an external audit re-tendering process in 2013. PricewaterhouseCoopers LLP (PwC) were subsequently appointed as external auditor of the Group, on our recommendation. The 2017 year-end audit therefore represents the fifth year of PwC's tenure as Group auditor.

After five years serving as PwC's lead audit partner on the Cairn engagement, Michael Timar has come to the end of his rotation period. Keith and I have met with PwC and agreed on a replacement audit partner to take over from Michael with effect from the June 2018 committee meeting.

# Audit Committee Report
continued

### 2017 year-end significant accounting issues

The significant accounting issues impacting the Group during 2017 arose from the commencement of production from the Group's North Sea assets, the continuing exploration and appraisal programme in Senegal and exploration drilling and new country entry within the Group's International portfolio. There were also developments in the ongoing India tax dispute, which is currently subject to international arbitration proceedings. The key accounting issues summarised below are those that are, or have the potential to be, material to the Group's results for the year and closing Balance Sheet position.

### New accounting issues arising in the year

#### Accounting for production in the North Sea

| Audit committee action | Audit committee conclusions |
|---|---|
| The committee reviewed the proposed accounting for production arising from the Group's Kraken and Catcher assets, including the proposed classification and disclosure in the financial statements. | After challenging management, the committee was satisfied on the accounting proposed for the Group's production in North Sea, including revenue recognition policies and classification of inventory. |
| The committee also considered the accounting for the FlowStream transaction, given this type of streaming agreement is relatively uncommon in the oil and gas sector. The committee queried whether accounting as deferred revenue rather than a financial liability was the correct treatment. | The committee noted that expert accounting advice had been obtained with regard to accounting for the FlowStream transaction and were satisfied with the explanations provided and that the cash received was properly recorded as deferred revenue. The committee therefore approved the accounting treatment adopted by the company. |

#### Accounting for FPSO lease agreements in the North Sea

| Audit committee action | Audit committee conclusions |
|---|---|
| Accounting for the Group's interests in the two FPSOs which became operational on the Kraken and Catcher fields during 2017 was considered in detail by the audit committee. | The audit committee were satisfied that appropriate and consistent assumptions had been applied by management in reaching conclusions on lease classification and measurement. |
| Specifically, the committee reviewed the key assumptions that management used to determine both the classification of the lease as either finance or operating and, for the former, the measurement of the lease at inception and on subsequent amendments to the lease agreement. | The committee also noted judgemental differences raised by the auditors on certain adjustments to the lease subsequent to initial recognition but were satisfied that these did not impact the measurement or either asset or liability at the year end and approved the accounting treatment adopted by management. |

#### Accounting for Vedanta Limited shares and related dividends

Although the Indian tax dispute has been ongoing for a number of years, there were two related developments during 2017; the execution of the Cairn India Limited merger with Vedanta Limited and the seizure of dividends due to Cairn from Cairn India (now Vedanta Limited) by the Indian Tax Department.

| Audit committee action | Audit committee conclusions |
|---|---|
| The committee reviewed the accounting arising from the merger of Cairn India with Vedanta, specifically the gain on disposal of the financial asset disclosed in the accounts. | The audit committee received a full explanation of the computation of the gain on disposal and were satisfied with both the quantum of the gain and its disclosure in the financial statements. |
| Further, the committee also reviewed the provision made against dividends receivable and considered the need for provision against the Vedanta Limited shares held as a financial asset. | The committee agreed with management's provision in full against dividends receivable and were re-assured by both management and the auditors that the seizure did not necessitate any further provision against the Vedanta Limited shares. |

### Recurring accounting issues

#### Carrying value of exploration assets

| Audit committee action | Audit committee conclusions |
|---|---|
| The committee considers in detail management's review for indicators of impairment across the Group's exploration portfolio and the subsequent impairment tests performed on the Group's key exploration assets in the Senegal and UK & Norway regions, noting and challenging the key assumptions included with the fair value models. | The committee was satisfied that the impairment tests performed by management were conducted in accordance with Cairn's accounting policy, using appropriate assumptions. Further, the committee is satisfied that exploration costs remaining in the Group's exploration and appraisal assets are appropriately capitalised. |

**Impairment testing on oil and gas assets and goodwill**

| Audit committee action | Audit committee conclusions |
|---|---|
| The committee reviews and approves the Group's corporate assumptions set by management, which include short and longer-term oil prices. In challenging those assumptions, the committee benchmarks against market trends, observed independently by the Group's auditors, seeking assurance that the assumptions used by management are comparable with those applied in the sector. These assumptions are key inputs into the impairment testing of the Group's oil and gas related assets, which remains a significant accounting issue in the current year. The committee also considers asset-specific assumptions applied by management in impairment models, including reserve volumes and production commencement dates, challenging management as to whether those assumptions remain appropriate. | The audit committee was satisfied that appropriate corporate assumptions were adopted by management, as key inputs into financial models used in the impairment calculations. The committee continues to monitor these assumptions at each meeting. The committee was also satisfied with the reserve volumes booked by management, taking assurance from independent reserve reports which support management's approach. The committee was satisfied that assumptions used in impairment testing were consistent with the latest performance indicators observed from the Group's assets and updated operator profiles. |
| The committee reviewed management's conclusion on the impairment test and the impairment reversal subsequently recorded in the income statement. The committee considered management's recommendation and sought assurance from the auditors that the impairment reversal was justifiable, correctly computed and disclosed appropriately. | The committee was satisfied that the correct impairment charge was recorded in the financial statements and that this was appropriately disclosed by category of asset. The committee approved the reversal of impairment recorded in the financial statements. |

In addition to the accounting issues identified above, the audit committee monitored the implementation of a new Group-wide ERP system installed by company during the year. At the request of the committee, additional work was performed by the auditors in advance of the system go-live to provide comfort that the processes and controls operated by the project team were suitably robust, and that the system was designed and operating as intended. This work was concluded in advance of the go-live decision, which then proceeded as planned.

**Going concern and viability**

At each reporting date, management considers the factors relevant to support a statement of going concern included in note 1 to the financial statements. The audit committee reviews and challenges management's conclusions so that we may, in turn, provide comfort to the Board that management's assessment has been considered, challenged and is appropriate.

Given the continuing low price environment facing the oil and gas industry, the audit committee carefully reviewed management's going concern conclusion based on the Group's latest net cash position and the forecast exploration and appraisal spend in the period ending 31 March 2018. This confirmed that the Group is fully funded to meet its work programme and firm commitments over the period of 12 months from the date of signing the financial statements. The audit committee subsequently recommended to the Board that the Group continues to use the going concern basis in preparing its financial statements.

With the viability statement now in its third year, the audit committee continued to monitor best-practice developments in this area of reporting and what improvements the Company could make in preparing the viability statement for the 2017 Annual Report and Accounts. At the March 2018 meeting the committed reviewed and queried management on the sensitivity analysis prepared to support their conclusions reached. Following this review, the committee recommended approval of the viability statement to the Board. Our updated viability statement is included in the Strategic Report on page 41.

**Assessment of external audit process**

The committee has an established framework to assess the effectiveness of the external audit process. This comprises:

| Audit committee action | Audit committee conclusion |
|---|---|
| A review of the audit plan including the materiality level set by the auditors and the process they have adopted to identify financial statement risks and key areas of audit focus (summarised in the Independent Auditor's Report on pages 132-137). | The committee agreed with the level of materiality set by the auditors. |
| A review of the Audit Quality Inspection (AQI) Report on our auditors published by the FRC with particular emphasis on any key messages applicable to Cairn. | There were no matters raised in the AQI report that caused concern for the audit committee. |
| A review of the final audit report, noting key areas of auditor judgement and the reasoning behind the conclusions reached. | The audit committee reviewed findings on the key audit issues identified. The committee was satisfied that appropriate challenge had been made of management and that the audit process was robust. |
| Regular communications through formal papers submitted and presentations to the committee and meetings between myself as Chair of the audit committee and the lead audit engagement partner. | The audit plan for the year ending 31 December 2017 was presented to the audit committee in June 2017 and is summarised in the Independent Auditor's Report on pages 132-137. |
| A formal questionnaire issued to all audit committee members and senior Cairn management who are involved in the audit covering the robustness of the audit process, the quality of delivery, the quality of reporting and the quality of the auditor's people and service. | No matters of significance were reported. |

# Audit Committee Report
continued

Of particular focus for the committee is the assessment of the judgement applied by PwC during each stage of the audit process including setting audit materiality, identifying the risks to the financial statements, evaluating audit findings and communicating those areas of judgement to the committee.

The audit committee noted the level of planned materiality and agreed on the levels of misstatements to be reported to the committee. The final audit report was presented to the audit committee in March 2018. After thorough discussion, the committee agreed with the conclusions reached by the auditors, noting the degree of judgement around areas of significant audit risk.

**Auditor independence and provision of non-audit services**

We have a long-established policy in relation to the supply of non-audit services by the external auditors. The Group will engage an external advisor to provide non-audit services on the basis of the skills and experience required for the work, where benefit will be derived as a result of the third party's knowledge of the Group and at a reasonable cost. These advisors may include the Group's external auditors, under a restricted set of circumstances, although, before the engagement commences, Cairn must be satisfied that the auditor's objectivity and independence would not be compromised in any way as a result of being instructed to carry out those services.

The policy on approval of non-audit fees for the Group's auditors is re-approved annually. This year an update to the policy was made to reflect the FRC's "Revised Ethical Standards" applicable to audit firms, released last year. Following the revised guidelines, all non-audit fees should now be approved by the audit committee in advance of the engagement (previously the policy required fees in excess of £100k only to need pre-approval).

As a practical workaround rather than seeking full committee approval in advance, only approval from the committee Chair need be sought in advance for fees below an approved threshold. This approval will then be ratified at the next meeting of the committee. The amended policy is now as follows:

| Fee level | Quotes required? | Prior approval of full audit committee required? | Prior approval of audit committee chair only required? |
|---|---|---|---|
| Up to £25,000 | No | No | Yes |
| £25,001 to £50,000 | Yes (with exceptions) | No | Yes |
| £50,001 to £100,000 | Yes | No | Yes |
| Greater than £100,000 | Yes | Yes | n/a |

During the year, PwC provided other services including certification of the Group's EITI submission in Senegal and providing the accountant's report on the circular requesting approval for the sell-down of the Group's holding in Vedanta Limited should the current restriction be lifted. The committee noted that it had previously instructed the auditors to undertake a translation service, converting financial statements of a non-material subsidiary into its local language. The auditors have subsequently identified this service as a breach of the FRC's revised Ethical Standard and this service has now ceased. A full analysis of remuneration paid to the Group's external auditor in respect of both audit and non-audit work is provided in note 6.4 to the financial statements.

**Internal audit**

Following a competitive tender process, Ernst & Young LLP (EY) was appointed as the Group's internal auditor with effect from July 2013. Prior to the beginning of each year, an internal audit plan is developed by the internal auditor, in consultation with senior management, based on a review of the outcome of the previous year's internal audits, the outcome of the annual assessment of effectiveness of internal control (refer to page 91), the results of historical audits of fundamental business processes and the significant risks in the Group Risk Matrix and identified mitigation measures. The plan is then presented to the audit committee for review and approval. The internal auditor also participates in meetings of the Group Risk Management Committee to maintain an understanding of the business activities and associated risks and to update the Group Risk Management Committee on the internal audit work plan. The audit committee also receives updates on the internal audit work plan on an ongoing basis. The external auditors do not place any reliance on the work undertaken by the Group's internal audit function due to the nature of the scope and the timing of their work. The external auditors do, however, attend all committee meetings where internal audit updates are given and meet separately with the internal auditors to discuss areas of common focus in developing their audit plan.

**Working responsibly – whistleblowing and related policies**

The Group is committed to working responsibly as part of its strategy to deliver value for all stakeholders. This means delivering value in a safe, secure, environmentally and socially responsible manner.

As part of this the audit committee is responsible for ensuring the Group has a robust Whistleblowing Policy in place and this policy is reviewed annually by the committee. The Group's current policy was presented to, and approved by, the audit committee at the March 2018 meeting. The committee is also responsible for and is satisfied that arrangements are in place for the proportionate and independent investigation of possible improprieties in respect of financial reporting and other matters and for appropriate follow-up action.

The Group has in place a comprehensive Anti-Bribery-and-Corruption Management System and Code of Ethics. Regular training updates are provided to all employees and long-term contractors in addition to the training that is provided to all new staff joining the company. As Cairn enters new countries, further monitoring is undertaken and training is refreshed. Further information regarding these policies can be found on the Group's website.

**IAIN MCLAREN**
Chair of the audit committee
12 March 2018

# Nomination Committee Report

## The Nomination Committee

### Members and meetings in 2017

Cairn recognises that the role of its nomination committee, working together with the Board as a whole, is key to promoting effective board succession and the alignment of board composition with the Company's culture, values and strategy. The Company has reviewed the results of the work undertaken by the Financial Reporting Council in relation to UK Board succession planning and revisited the role of the Board and nomination committee in this context to ensure it remains appropriate.

| Members and meetings in 2017 | Member since | Meetings attended |
|---|---|---|
| Ian Tyler (Chair) | 05/14 | |
| Simon Thomson | 03/13 | |
| Iain McLaren | 03/13 | |
| Keith Lough | 05/15 | |
| Peter Kallos | 09/15 | |

The membership of the committee is set out in the table opposite and comprises a majority of independent non-executive directors; the Chief Executive is also a member of the committee.

The role of the nomination committee includes:

- evaluating the balance of skills, knowledge, experience, diversity and independence on the Board;
- supporting the process for Board appointments and making recommendations to the Board in respect of new appointments;
- working with the Board to address any performance evaluation outcomes linked to board succession planning; and
- oversight of the executive pipeline of talent beneath Board level.

**Board changes**

The Company appointed two new non-executive directors (Keith Lough and Peter Kallos) during 2015 and one new non-executive director (Nicoletta Giadrossi) in early 2017. The process for these appointments was fully explained in the 2015 and 2016 annual reports.

Iain McLaren will step down as a non-executive director immediately after the AGM on 15 May 2018, following which the nomination committee will commence a search for one additional new non-executive director. Following Mr McLaren's retirement from the Board, Keith Lough will assume the role of chair of the audit committee and Peter Kallos will assume the role of senior independent non-executive director.

**Succession planning and development of executive pipeline**

The nomination committee regularly evaluates the balance of skills, experience, independence and knowledge of the Company on the Board and makes recommendations to the Board as appropriate. In so doing, the committee fully supports the principle that any new appointments to the Board should be made on merit, against objective criteria, and with due regard for the benefits of diversity on the Board, including gender and ethnicity.

The Board and nomination committee work together with the aim of maintaining a comprehensive succession plan for appointments to the Board and to senior management, so as to maintain an appropriate balance of skills and experience within the Company and on the Board and to ensure progressive refreshing of the Board. The Company's succession planning also includes contingency plans for the sudden or unexpected departure of executive directors and other senior managers.

The Board has also carefully considered the significance of succession planning and human resource management to the Company's strategy and annually reviews this at Board level.

The key positions covered in our succession plan include the executive directors, regional directors and a number of other senior functional and technical managers. The Board considered succession planning for each of the key positions, analysed any succession gaps or risks identified and considered how best to continue to develop the succession pipeline of executive talent. As a result, the Board has a deep understanding of succession planning across the Company and the range of measures being used to continue to develop and recruit talented senior employees.

During 2017, the Board's review of succession planning covered an executive summary, a review of the process used by the Company for succession planning, key achievements since the previous review, analysis of the succession plan for each key position over various time horizons, an organisational capability assessment and 'health-check', and actions being undertaken to address any succession risks or challenges identified.

# Nomination Committee Report
continued

**Diversity**
The nomination committee very much takes into account the benefits of diversity on the Board, including gender and ethnic and cultural diversity. Following the appointment of Nicoletta Giadrossi, the Company currently has two female non-executive directors (representing 20% of total membership) and the Board is diverse in terms of the range of culture, nationality and international experience of its members. The directors' diverse range of experience and expertise covers not only a wealth of experience of operating in the oil and gas industry but also extensive technical, operational, financial, governance, legal and commercial expertise. The committee will further monitor and consider diversity for future Board appointments, whilst continuing to recruit on merit.

Beneath Board level, the Company also aims to develop and increase the number of women in senior management roles across the Group, although Cairn does face particular challenges in achieving this given the industry within which it operates. There is currently one woman on the Senior Leadership Team (representing 14% of total membership) and there are two women on the Management Team (representing 20% of total membership). Cairn has also participated fully in the submission of gender performance data to the UK Government as part of the Hampton-Alexander review aimed at improving the representation of women in leadership positions in the FTSE 350.

The Company continues to operate a range of measures which support diversity at Cairn, including recruitment and succession planning, training and development, and flexible working policies. The pipeline of younger talent within the Group is also diverse and bodes well for the future.

**Board and committee performance evaluation**
The Board retains overall responsibility for implementation of its annual performance evaluation and the process and outcomes of the 2017 evaluation are described in the corporate governance statement on page 85. The process included a review of all Board committees and it was concluded that the relationship between the Board and its committees was functioning well, with all committees fully meeting their remit. The nomination committee works together with the Board in seeking to address any performance evaluation outcomes relating to Board composition and succession planning.

**IAN TYLER**
Chair of the nomination committee
12 March 2018

## The Remuneration Committee
Members and meetings in 2017

| Members and meetings in 2017 | Member since | Meetings attended |
|---|---|---|
| Jackie Sheppard (Chair) | 10/11 | |
| Iain McLaren | 05/10 | |
| Ian Tyler | 06/13 | |
| Peter Kallos | 09/15 | |
| Nicoletta Giadrossi | 01/17 | |

## Part 1 – Annual statement from the Chair of the committee

Dear Shareholder,

As the Chair of Cairn's remuneration committee, I am pleased to present our Directors' Remuneration Report for 2017.

At last year's Annual General Meeting, shareholders were asked to vote separately on our "Annual Report on Remuneration" for the year to 31 December 2016 and a new "Directors' Remuneration Policy" to be applied in 2017 and later years. The committee was delighted by the strong support for both resolutions shown by the Company's members.

The overall executive remuneration framework that was approved at the meeting on 19 May 2017 was subsequently applied throughout the remaining part of the year and the committee continues to believe that it remains fit for purpose for 2018. As a consequence, shareholders are not being asked to approve a new Directors' Remuneration Policy at the 2018 AGM. However, for ease of reference, the substantive provisions of the approved policy are repeated in Part 2 of this report. Part 3, which contains this year's Annual Report on Remuneration, then goes on to explain how these provisions were actually applied in 2017 and how they will be operated in 2018. The Annual Report on Remuneration will be subject to an advisory vote at the AGM to be held on 15 May 2018.

**Summary of 2017 business context and key remuneration decisions**

The work of the committee in 2017 was conducted against a backdrop of a year in which the Company fulfilled its objective of operating with a focus on safety, building a business with appropriate exposure to material frontier and mature basin exploration whilst maintaining balance sheet strength and financial flexibility.

The key remuneration-related decisions made by the committee in 2017 are described in more detail in the Annual Report on Remuneration contained on pages 111-127 and can be summarised as follows:

# Directors' Remuneration Report
continued

| | |
|---|---|
| **Base salary increases** | At its meeting in November 2017, the committee agreed that, with effect from 1 January 2018, a base salary increase of 1% would be applied to both the Company's executive directors (being Simon Thomson and James Smith).<br><br>The above increase was consistent with the level of standard annual salary increase awarded to other employees at that time. |
| **2017 annual bonus** | Based on an assessment of the extent to which the relevant targets were achieved during 2017, awards made under the annual bonus scheme to the executive directors during the year (as a percentage of annual salary) were 96.24% for both Simon Thomson and James Smith.<br><br>Under the Company's policy that was approved at the 2017 AGM, any part of an executive director's bonus that is in excess of 100% of the individual's base salary is deferred into Cairn shares for three years. Given that this threshold was not reached by the above bonuses, they were paid out wholly in cash.<br><br>Further details of the way in which these awards were determined and paid are set out on pages 116-119 of the Annual Report on Remuneration. |
| **Long Term Incentive Plan (LTIP) – vesting of 2014 awards** | The performance period applicable to the LTIP awards granted in 2014 came to an end during 2017. Over this period, the Company's Total Shareholder Return was sufficient to place it between the second and third positions in a group of 18 comparator companies with the result that these awards vested in respect of 90.82% of the shares over which they were granted.<br><br>As part of the above vesting process, the LTIP's rules also required the committee to review the Company's overall performance over the three years from the grant of the awards. After due and careful consideration, the committee concluded that there had been a sustained improvement in such overall performance during that time. |
| **Long Term Incentive Plan – adoption of new arrangement and grant of 2017 awards** | Following receipt of the necessary shareholder approvals at the 2017 AGM, the committee formally adopted the Company's new long term incentive plan (the 2017 LTIP) and, on 23 May 2017, granted the initial awards pursuant to its rules.<br><br>Details of the grants made to executive directors are set out in the Annual Report on Remuneration. In particular, page 120 explains the performance conditions that must be satisfied over the period of three years from grant before any part of these awards vest and highlights the fact that, thereafter, a two year "holding period" will normally be operated before the individuals are entitled to acquire any of their vested shares (i.e. in the ordinary course, executive directors will normally have to wait a minimum of five years before receiving any benefits from their participation in the 2017 LTIP). |
| **Non-executive directors' fees and Chairman's fee** | During 2017, the committee reviewed the Chairman's annual fee in the context of market data and the time commitment for the role. Following this review it was decided that the fee should be increased by 1% from £175,000 to £177,000 effective 1 January 2018.<br><br>The fees paid to non-executive directors were also reviewed during the year by the Board (excluding non-executive directors). Following this review it was determined that, with effect from 1 January 2018, the basic annual fee would be increased from £74,900 to £75,500. However, no change was made to the additional fee payable for chairing the audit and/or remuneration committees. |

**Applying the policy in 2018**
An overview of the way in which the current remuneration policy will be applied in 2018 is set out on pages 126-127 in the Annual Report on Remuneration. In summary:

- on 1 January 2018, the above noted increases to the base salaries of the Chief Executive and CFO and the fees of the Chairman and non-executive directors came into effect;
- the Group KPI measures used for the annual bonus scheme (and their respective weightings) have been reformulated for 2018 in order to reflect appropriately the Company's strategic priorities for the period;
- the proportion of the Chief Executive's and CFO's annual bonus for the year that will be determined by reference to the above Group KPI measures has been increased to 100% (from the 90% level that applied in 2017); and
- no material changes have been made to the manner in which the LTIP will operate in 2018.

The committee is aware that the remuneration landscape for listed companies is likely to evolve over the next year (as a result, for example, of the ongoing discussions around gender pay issues and the market reaction to the UK Government's August 2017 proposals on reforming corporate governance) and will continue to monitor developments, and consider their implications for Cairn, as they arise.

**Feedback on Directors' Remuneration Report**
We welcome questions and feedback from all those interested on both the content and style of this report.

**M. JACQUELINE SHEPPARD QC**
Remuneration Committee Chair
12 March 2018

## Part 2 – Directors' Remuneration Policy

**Introduction**
At the AGM held on 19 May 2017, shareholders overwhelmingly approved a new Directors' Remuneration Policy for the Company. This policy, which specifies the various pay structures operated by the Company and summarises the approach that the committee will adopt in certain circumstances such as the recruitment of new directors and/or the making of any payments for loss of office, became effective immediately on receipt of that approval and was applied by the committee during 2017. This policy will also be operative throughout 2018.

Although not required by the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended) (the "Regulations"), the substantive terms of the above Directors' Remuneration Policy are repeated in this Part 2 for ease of reference. However, any details that were specific to 2017 or earlier years (including, for example, any disclosures relating to named directors and the illustrative remuneration scenarios set out on page 109) have, where applicable, been updated to reflect the current position. The policy as originally approved by shareholders can be found on pages 101-110 of the 2016 Annual Report and Accounts, a copy of which is available on the Company website.

**Purpose and role of the remuneration committee**
The remuneration committee determines and agrees with the Board the overall remuneration policy for the executive directors and the Group's PDMRs (Persons Discharging Managerial Responsibilities). Within the terms of this agreed policy, the committee is also responsible for:

- determining the total individual remuneration package for each executive director and the PDMRs;
- determining the level of awards made under the Company's LTIPs and employee share award schemes and the performance conditions which are to apply;
- determining the KPIs used to measure performance for the annual bonus scheme;
- determining the bonuses payable under the Company's annual bonus scheme;
- determining the vesting levels of awards under the Company's LTIPs and employee share award schemes; and
- determining the policy for pension arrangements, service agreements and termination payments for executive directors and PDMRs.

The committee also reviews and approves the overall remuneration levels of employees below senior management level, but does not set individual remuneration amounts for such individuals. This oversight role allows the committee to take into account pay policies and employment conditions within the Group as a whole when designing the reward structures of the executive directors and PDMRs. For example, the committee considers the standard increase applied to basic pay across the Group when setting executive directors' base salaries for the same period.

The committee operates within written terms of reference agreed by the Board. These are reviewed periodically to ensure that the committee remains up-to-date with best practices appropriate to Cairn, its strategy and the business and regulatory environment in which it operates. The terms of reference of the remuneration committee are available on the Company's website.

**Consultation with relevant stakeholders**
The committee is always keen to ensure that, in carrying out its mandate, it takes into account the views and opinions of all the relevant stakeholders in the business.

During the early part of 2017, the committee continued to engage with a selection of the Company's larger institutional investors and their representative bodies in relation to the new Directors' Remuneration Policy that was approved at the AGM held on 19 May 2017. A number of the features highlighted by shareholders during this process (including bonus deferral, extended holding periods for LTIP awards and increased shareholding guidelines) were incorporated into the final proposals.

Historically, the committee has not undertaken a formal consultation exercise with employees in relation to the Group's policy on senior management remuneration. Members of staff are, however, regularly given the opportunity to raise issues on a variety of matters, including executive pay, via a number of mechanisms and, during 2018, the committee will explore the possibility of introducing additional procedures that will facilitate a greater degree of engagement with the wider workforce on the Company's pay policies and practices.

# Directors' Remuneration Report
continued

### Overview of current remuneration policy
Cairn's current policy on executive directors' remuneration, which became effective on 19 May 2017 and which is set out below, is to ensure that it appropriately incentivises individuals to achieve the Group's strategy to deliver value for stakeholders by building and maintaining a balanced portfolio of exploration, development and production assets, whilst offering a competitive package against the market.

A description of each of the elements comprised in the pay packages for Cairn's directors under its remuneration policy is as follows:

### Policy Table – elements of directors' remuneration package

| Remuneration element | Purpose and link to strategy | Operation | Opportunity | Framework for assessing performance |
|---|---|---|---|---|
| **Base salary** | Helps recruit and retain employees.<br>Reflects individual experience and role. | Normally reviewed annually (with changes taking effect on 1 January) and/or when otherwise appropriate, including when an individual changes position or responsibility.<br>Aim is to provide a competitive base salary relative to the market (although the committee does not place undue emphasis on benchmarking data and exercises its own judgement in determining pay levels).<br>Decision influenced by:<br>• role and experience;<br>• average change in broader workforce salaries;<br>• individual performance; and<br>• remuneration practices in companies of a broadly similar size and value and relevant oil and gas exploration and production companies. | Whilst the committee has not set a monetary maximum, annual increases will not exceed the level of standard increase awarded to other employees except that more significant increases may be awarded at the discretion of the committee in connection with:<br>• an increase in the scope and responsibility of the individual's role; or<br>• the individual's development and performance in the role following appointment; or<br>• a re-alignment with market rates. | None |
| **Benefits** | Helps recruit and retain employees. | Directors are entitled to a competitive package of benefits. For UK executives, the major elements include a company car, permanent health insurance, private health insurance, death-in-service benefit and a gym and fitness allowance.<br>The committee reserves the right to provide further benefits where this is appropriate in the individual's particular circumstances (for example costs associated with relocation as a result of the director's role with the Company). Executive directors are also eligible for other benefits which are introduced for the wider workforce on broadly similar terms. | Company cars up to a value of £70,000 (or, as an alternative, an annual car allowance of up to £8,771) may be provided. Whilst the committee has not set a monetary maximum for other benefits, they will be in line with the market as determined by the committee. | None |

| Remuneration element | Purpose and link to strategy | Operation | Opportunity | Framework for assessing performance |
|---|---|---|---|---|
| **Annual bonus** | Rewards the achievement of annual KPIs and/or other objectives linked to the Company's strategic goals. | Bonuses are awarded by reference to performance against specific targets measured over a single financial year.<br><br>Any amounts awarded to an individual under this arrangement up to 100% of salary are paid out in full shortly after the assessment of the performance targets has been completed. The remainder of the bonus will be deferred into an award of shares for a three year period, or such other period as determined by the committee.<br><br>Annual bonuses may be subject to clawback, and the extent to which deferred share awards vest may be reduced, where, in the period of three years from the end of the relevant financial year, the committee becomes aware of a material misstatement of the Company's financial results or an error in the calculation of performance targets which, had it been known at the relevant time, would have reasonably been expected to have resulted in a lower award being made. | Maximum % of salary: 125%. | The measures and targets applicable to the annual bonus scheme (and the different weightings ascribed to each of them) are set annually by the committee in order to ensure they are relevant to participants and take account of the most up-to-date business plan and strategy.<br><br>All, or a significant majority, of the bonus opportunity will normally be determined by reference to performance against demanding Group KPIs such as:<br>• exploration and new venture objectives;<br>• development and production targets; and<br>• HSE.<br><br>Any remaining part of a director's bonus will normally be based on the achievement of personal objectives relevant to that individual's role within the business.<br><br>A payment scale (ranging from 0% to 100% of the opportunity) for different levels of achievement against each KPI and/or other objective is specified by the committee at the outset of each year.<br><br>The committee has discretion to vary the measures and weightings during the year if events arise which mean that it would be inappropriate to continue with the originally prescribed structure. The committee expects that this discretion will only be exercised in exceptional circumstances and not to make the bonus scheme for that year less demanding than when it was originally set.<br><br>In addition, the committee has discretion to ensure that the ultimate bonus payment for a financial year is fair and reasonable and properly reflects performance over that period. |

# Directors' Remuneration Report
continued

| Remuneration element | Purpose and link to strategy | Operation | Opportunity | Framework for assessing performance |
|---|---|---|---|---|
| **2017 Long Term Incentive Plan (or 2017 LTIP)** | Incentivises executive directors to deliver long-term performance for the benefit of shareholders, thereby aligning the interests of the directors with those of the Company's investors. | The 2017 LTIP was established by the Company following receipt of the necessary shareholder approvals at the 2017 AGM.<br>Awards will normally be made annually with vesting dependent on achievement of performance conditions chosen by the committee that are measured over a period of at least three years.<br>All awards which vest will normally be subject to a holding period in terms of which the relevant shares will only be released/become exercisable after a further period of at least two years has expired from the vesting date.<br>The committee reviews the quantum of awards annually, taking into account factors such as market rates and overall remuneration.<br>Awards may be subject to clawback where, in the period of three years from the end of the relevant performance period, the committee becomes aware of a material misstatement of the Company's financial results or an error in the calculation of performance conditions which, had it been known at the relevant time, would have reasonably been expected to have resulted in a lower vesting being determined. | Normal total maximum % of salary: 250%. | Vesting of awards granted under the 2017 LTIP will be determined by the growth in Total Shareholder Return (TSR) of Cairn over a performance period of at least three years.<br>Awards up to 200% of salary (the "core award") will be subject to TSR performance measured relative to a comparator group selected by the committee, with no more than 25% vesting at median and 100% for at least upper quartile performance.<br>In order to focus on exploration success which leads to a material increase in the share price, once performance for the "core award" has been fully achieved, an additional element of up to 50% of salary can be earned if absolute TSR growth over the same performance period equals or exceeds 100% (the "kicker award").<br>No part of any award will vest unless the committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.<br>Although the committee's intention is that the above conditions will be applied to LTIP awards granted in 2018, it may decide to impose different (but equally challenging) conditions in future years. The committee will consult with major shareholders prior to making any such decision and will ensure that the vesting of at least 50% of all awards granted under the LTIP continues to be determined by reference to the Company's TSR performance. |
| **2009 Long Term Incentive Plan (or 2009 LTIP)** | Incentivises executive directors to deliver superior levels of long-term performance for the benefit of shareholders, thereby aligning the interests of the directors with those of the Company's investors. | It is not proposed that further awards will be granted to executive directors under this plan.<br>Awards vest dependent on achievement of performance conditions measured over a three-year period.<br>On vesting of an award, 50% of the shares to which the holder has become entitled are released/ become exercisable immediately, with the remaining 50% normally being released/ becoming exercisable after a further period of one year.<br>Awards may be subject to clawback where, in the period of three years from the end of the relevant performance period, the committee becomes aware of a material misstatement of the Company's financial results or an error in the calculation of performance conditions. | Normal maximum % of salary: 300% (400% including multiplier).<br>Exceptional circumstances maximum % of salary: 400% (532% including multiplier). | Vesting is determined by comparing the growth in Total Shareholder Return ("TSR") of Cairn over a performance period of three years from grant with the TSR of a comparator group of international oil and gas companies that is selected by the committee prior to each grant, with 20% vesting at median, 100% at upper decile and on a straight line sliding scale in between.<br>In order to encourage exceptional performance, the above condition provides that, at upper decile levels, a multiplier of up to 1.33 is applied if absolute TSR growth is between 50% and 100% (or more). It also states that no part of any award will vest unless the committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period. |

| Remuneration element | Purpose and link to strategy | Operation | Opportunity | Framework for assessing performance |
|---|---|---|---|---|
| **Share Incentive Plan (or SIP)** | Encourages a broad range of employees to become long-term shareholders. | The Company established an HM Revenue and Customs approved share incentive plan in April 2010. It allows the Company to provide eligible employees, including the executive directors, with some or all of the following benefits:<br>• partnership shares acquired using deductions from salary;<br>• matching shares awarded to those employees who purchase partnership shares on the basis of a ratio specified by the Company; and<br>• free shares.<br>Matching and free shares awarded under the SIP must normally be held in the plan for a specified period. | Participation limits are those set by the UK tax authorities from time to time. These limits are currently as follows:<br>• Partnership shares: up to £1,800 per tax year can be deducted from salary.<br>• Matching shares: up to two matching shares for every one partnership share purchased.<br>• Free shares: up to £3,600 worth in each tax year. | None |
| **Pension** | Rewards sustained contribution. | The Company operates a defined contribution group personal pension plan in the UK. The scheme is non-contributory and all UK permanent employees, including the executive directors, are eligible to participate.<br>The Company contributes a specified percentage of basic annual salary for senior employees, including executive directors.<br>Where an executive director has an individual personal pension plan (or overseas equivalent), the Company pays its contribution to that arrangement.<br>If an executive director's pension arrangements are fully funded or applicable statutory limits are reached, an amount equal to the Company's contribution (or the balance thereof) is paid in the form of additional salary. | Company contributes 15% of basic salary on behalf of executive directors or pays them a cash equivalent. | None |
| **Non-executive directors' fees** | Helps recruit and retain high-quality, experienced individuals.<br>Reflects time commitment and role. | Non-executive directors' fees are considered annually and are set by the executive members of the Board and the Chairman taking into account a range of relevant factors including:<br>• market practice;<br>• time commitment; and<br>• responsibilities associated with the roles.<br>Additional fees are payable to the Chairs of the audit and remuneration committees.<br>Expenses incurred in the performance of non-executive duties for the Company may be reimbursed or paid for directly by the Company, including any tax due on the expenses. | Company's Articles of Association place a limit on the aggregate annual level of non-executive directors' and Chairman's fees (currently £900,000). | None |

# Directors' Remuneration Report
continued

| Remuneration element | Purpose and link to strategy | Operation | Opportunity | Framework for assessing performance |
|---|---|---|---|---|
| **Chairman's fees** | Helps recruit and retain the relevant individual.<br>Reflects time commitment. | The Chairman's fee is considered annually and is determined in light of market practice, the time commitment and responsibilities associated with the role and other relevant factors.<br>Expenses incurred in the performance of the Chairman's duties for the Company may be reimbursed or paid for directly by the Company, including any tax due on the expenses. | Company's Articles of Association place a limit on the aggregate annual level of non-executive directors' and Chairman's fees (currently £900,000). | None |

Notes:
(1) A description of how the Company intends to implement the policy set out in this table during the financial year to 31 December 2018 is provided on page 126-127.
(2) The following differences exist between the Company's above policy for the remuneration of directors and its approach to the payment of employees generally:
- Participation in the LTIP is typically aimed at the executive directors and certain selected senior managers. Other employees are eligible to participate in the Employee Share Award Scheme (details of which are provided on pages 162-163).
- Under the Company's defined contribution pension scheme, the Company contribution for less senior employees is 10% of basic annual salary.
- A lower level of maximum annual bonus opportunity applies to employees other than the executive directors and certain PDMRs.
- Benefits offered to other employees generally comprise permanent health insurance, private health insurance, death-in-service benefit and gym and fitness allowance.

In general, these differences arise from the development of remuneration arrangements that are market competitive for the various categories of individuals. They also reflect the fact that, in the case of the executive directors and PDMRs, a greater emphasis is placed on variable pay.
(3) The TSR performance conditions applicable to the 2017 LTIP and 2009 LTIP (further details of which are provided on pages 119-120) were selected by the committee on the basis that they improve shareholder alignment and are consistent with the Company's objective of delivering superior levels of long-term value to shareholders. Under the terms of these performance conditions, the committee can specify the basis on which TSR for any company is calculated and has the discretion to make adjustments to this methodology to take account of exceptional circumstances, including share capital variations. Where any company becomes unsuitable as a member of the comparator group as a result of, for example, a change of control or delisting, the committee has the discretion to treat that company in such manner as it deems appropriate (including replacing it with another organisation).
(4) Where a nil-cost option award under the 2009 LTIP or 2017 LTIP becomes exercisable, it will generally remain so until the 10th anniversary of the date on which it was granted.
(5) The choice of the performance metrics applicable to the annual bonus scheme reflect the committee's belief that any incentive compensation should be tied to appropriately challenging measures of both the overall performance of the Company against its strategic KPIs and (where appropriate) those areas that the relevant individual can directly influence.
(6) The legislation applicable to the SIP does not allow performance conditions to be applied in relation to partnership or matching shares and, given that the SIP is an 'all-employee' arrangement, the Company has decided that it is currently not appropriate to apply performance conditions to free shares awarded under it, although the committee retains the discretion to apply performance conditions to future awards.

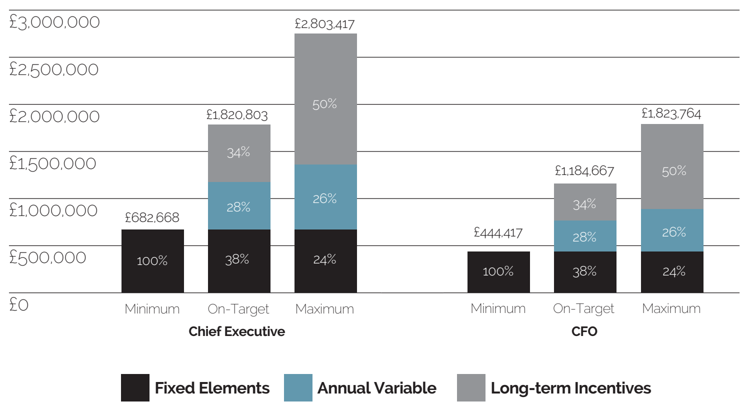
**Common terms of share awards**
Awards under any of the Company's discretionary share plans referred to in this report may:

- be granted as conditional share awards or nil-cost options or in other such form that the committee determines has the same economic effect;
- have any performance conditions applicable to them amended or substituted by the committee if an event occurs which causes the committee to determine an amended or substituted performance condition would be more appropriate and not materially less difficult to satisfy;
- incorporate the right to receive an amount (in cash or additional shares) equal to the value of dividends which would have been paid on the shares under the award that vest up to the time of vesting (or, where the award is subject to a holding period, release). This amount may be calculated assuming that the dividends have been reinvested in the Company's shares on a cumulative basis;
- be settled in cash at the committee's discretion; and
- be adjusted in the event of any variation of the Company's share capital or any demerger, delisting, special dividend or other event that may affect the Company's share price.

**Legacy awards**
The committee reserves the right to make any remuneration payments and/or payments for loss of office (including exercising any discretions available to it in connection with such payments) notwithstanding that they are not in line with the policy set out above where the terms of the payment were agreed (i) before 15 May 2014 (the date the Company's first shareholder-approved directors' remuneration policy came into effect); (ii) before the policy set out above came into effect, provided that the terms of the payment were consistent with the shareholder-approved directors' remuneration policy in force at the time they were agreed; or (iii) at a time when the relevant individual was not a director of the Company and, in the opinion of the committee, the payment was not in consideration for the individual becoming a director of the Company. For these purposes "payments" includes the committee satisfying awards of variable remuneration and, in relation to an award over shares, the terms of the payment are "agreed" at the time the award is granted.

**Remuneration scenarios relating to the above policy**

Cairn's pay policy seeks to ensure that the overall package of the executive directors is generally weighted more towards variable pay and, within such variable pay element, that greater emphasis is placed on the delivery of long-term performance through the award of long-term incentives. In the chart below, we show the make-up of remuneration of the current executive directors in 2018 under minimum, on-target and maximum scenarios.




In developing the above scenarios, the following assumptions have been made:

- The "minimum" columns are intended to show the fixed level of remuneration to which the executive directors are entitled in 2018 irrespective of performance levels, namely base salary (at current rates), benefits (using the details set out in the 2017 single-figure table provided on page 113) and pension (calculated by applying the percentage entitlement set out in the policy table against latest confirmed salary).
- The "on-target" scenario seeks to illustrate the remuneration the executive directors would receive if performance was in line with expectation. In addition to the fixed elements summarised above, it assumes a specified level of payout/vesting under the annual bonus scheme and 2017 LTIP. Given that neither of these incentive arrangements explicitly stipulate an "on-target" amount, the assumed levels for this scenario are:
  - in the case of the LTIP, for on-target performance the "kicker" element of the award would not vest. Therefore the illustration is based on 55% vesting of the "core award" of 200% of salary. This vesting level is broadly equal to the percentage applied in determining the grant date "fair value" of an LTIP award for the purposes of the Company's share-based payment charge; and
  - in the case of the annual bonus, a payout of 73% of maximum opportunity (being the approximate average of such payouts for all executive directors over the five years up to and including 2017).
- The "maximum" columns demonstrate total remuneration levels in circumstances where the variable elements pay out in full, namely an annual bonus payment of 125% of salary (with 100% of salary paid in cash and the balance delivered in the form of a deferred share award) and 100% vesting of LTIP awards to be granted in 2018 over shares worth 250% of salary.
- For the purposes of valuing the LTIP and deferred bonus awards, any post-grant share price movements have been ignored.
- The executive directors are entitled to participate in the SIP on the same basis as other employees. The value that may be received under this arrangement is subject to legislative limits and, for simplicity, has been excluded from the above chart.

**Recruitment policy**

**Base salaries**

Salaries for any new director hires (including internal promotions) will be set to reflect their skills and experience, the Company's intended pay positioning and the market rate for the role. Where it is appropriate to offer a below-market salary initially, the committee will have the discretion to allow phased salary increases over time for newly appointed directors, even though this may involve increases in excess of the rate for the wider workforce and inflation.

**Benefits**

Benefits and pensions for new appointees to the Board will normally be provided in line with those offered to other executive directors and employees taking account of local market practice, with relocation expenses/arrangements provided for if necessary. Tax equalisation may also be considered if an executive is adversely affected by taxation due to their employment with Cairn. Legal fees and other reasonable costs and expenses incurred by the individual may also be paid by the Company.

**Variable pay**

For external appointments, the committee will ensure that their variable remuneration arrangements are framed in accordance with the terms of, and are subject to the limits contained in, the Company's existing policy.

The committee may however, in connection with an external recruitment, offer additional cash and/or share-based elements intended to compensate the individual for the forfeiture of any awards under variable remuneration schemes with a former employer. The design of these payments would appropriately reflect the value, nature, time horizons and performance requirements attaching to the remuneration foregone. Shareholders will be informed of any such arrangements at the time of appointment.

Where an individual is appointed to the Board, different performance measures may be set for the year of joining the Board for the annual bonus, taking into account the individual's role and responsibilities and the point in the year the executive joined.

For an internal appointment, any variable pay element awarded in respect of the prior role may be allowed to pay out according to its terms, adjusted as relevant to take into account the appointment.

# Directors' Remuneration Report
continued

### Chairman and non-executive directors
On the appointment of a new Chairman or non-executive director, the fees will be set taking into account a range of relevant factors including market practice, time commitment and the responsibilities associated with the role. Where specific cash or share arrangements are delivered to non-executive directors, these will not include share options or other performance-related elements.

### Executive directors' service contracts
The current executive directors' service contracts contain the key terms shown in the table below:

| Provision | Detailed terms |
|---|---|
| **Remuneration** | • Salary, pension and benefits.<br>• Company car or cash allowance.<br>• Permanent health insurance.<br>• Private health insurance for director and dependants.<br>• Death-in-service benefits.<br>• 30 days' paid annual leave.<br>• Participation in annual bonus plan, subject to plan rules.<br>• Participation in deferred bonus, LTIP and SIP, subject to plan rules. |
| **Notice period[1]** | • 12 months' notice by the director or by the Company. |
| **Termination payment** | • See separate disclosure below. |
| **Restrictive covenants** | • During employment and for 12 months after leaving. |

Note:
(1) The committee believes that this policy on notice periods provides an appropriate balance between the need to retain the services of key individuals who will benefit the business and the need to limit the potential liabilities of the Company in the event of termination.

The executive directors' service contracts are available for inspection, on request, at the Company's registered office.

### Exit payment policy for executive directors
Executive directors' contracts allow for termination with contractual notice from the Company or termination with a payment in lieu of notice, at the Company's discretion. The contracts also allow for phased payments to be made on termination with an obligation on the individual to mitigate loss. Neither notice nor a payment in lieu of notice will be given in the event of gross misconduct. The committee's approach when considering payments in the event of termination is to take account of the individual circumstances including the reason for termination and the contractual obligations of both parties as well as the relevant share plan and pension scheme rules.

In the event of termination by the Company, an executive director would be entitled to receive an amount representing base salary and the value of benefits and pension contributions due under the individual's service contract for the notice period. Directors are not entitled to participate in any additional redundancy scheme. The committee will have the authority to settle legal claims against the Group (e.g. for unfair dismissal, discrimination or whistleblowing) that arise on termination. The committee may also authorise the provision of outplacement services and pay reasonable legal expenses associated with the termination.

On termination of employment, the committee has discretion as to the amount of bonus payable in respect of the current year. The bonus paid would reflect the Company's and the individual's performance during that period. However, any bonus payable (in cash and/or share awards as determined by the committee) on termination would not exceed a pro-rated amount to reflect the period for which the individual had worked in the relevant year.

As a general rule, if an executive director ceases employment, all unvested share awards granted pursuant to the Company's deferred bonus arrangements will lapse immediately. However, if such cessation occurs by reason of death, injury, permanent disability, or because the individual's employing company or part of the business in which he/she is employed is transferred out of the Group, retirement with the agreement of the Company, or in any other circumstances determined by the committee other than where an individual has been summarily dismissed (in each case, a 'good leaver'), those awards will not lapse and will normally continue to vest at the end of the original vesting period. The committee may determine that a deferred bonus award should vest before the normal time in certain circumstances, for example where an individual has died. The committee also has the discretion to time pro-rate any awards held by such a good leaver.

As a general rule, if an executive director ceases employment, all unvested awards granted pursuant to the Company's long-term incentive arrangements under the 2009 LTIP and 2017 LTIP will lapse immediately. However, if such cessation occurs by reason of death, injury, permanent disability (or, for 2009 LTIP awards, redundancy), or because the individual's employing company or part of the business in which he/she is employed is transferred out of the Group, or in any other exceptional circumstances determined by the committee (in each case, a 'good leaver'), those awards will not lapse and will normally continue to vest at the end of the original performance period but only if, and to the extent that, the applicable performance conditions are satisfied. The committee may determine that an award should vest before the normal time in certain circumstances, for example where an individual has died. It is the remuneration committee's normal policy to time pro-rate any awards held by such a good leaver, although it retains the discretion to refrain from doing so in exceptional circumstances. Any holding period attached to the share awards would normally continue to apply.

If an executive director ceases employment, 2017 LTIP awards subject to a holding period will normally be released (or if structured as nil-cost options, become exercisable) on the original timescales. These awards will, however, lapse where cessation occurs due to the individual's gross misconduct, or if the committee considers it appropriate, the individual's bankruptcy. The committee has the discretion to accelerate the release of shares in certain circumstances, for example death. For 2009 LTIP awards subject to a holding period at the time an executive director ceases employment, awards will normally be released on cessation of employment.

On a change of control of the Company resulting in the termination of his employment, the current Chief Executive is entitled to compensation of a sum equal to his annual basic salary as at the date of termination of employment. As noted and explained in previous reports, the committee recognises that this provision is no longer in accordance with best practice. It was not included in the contract of the CFO that was entered into on his appointment in 2014, and will not be included in the contracts of other future appointees to the Board; however, it continues to apply to the current Chief Executive.

In the event of a change of control or winding up of the Company, treatment of share awards will be in accordance with the relevant plan rules. The committee has the discretion to disapply time pro-rating in the event of a change of control.

If there is a demerger or special dividend, the committee may allow awards to vest on the same basis as for a change of control.

**Non-executive directors' letters of appointment**

None of the non-executive directors nor the Chairman has a service contract but all have letters of appointment that set out their duties and responsibilities, the time commitment expected by the Company, and the basis on which their fees will be paid. These letters of appointment can be terminated with immediate effect by either the director concerned or the Company and are subject to the Company's Articles of Association, which provide for the annual election or re-election by shareholders of all of the Company's directors. There are no provisions for compensation payable on termination of appointment.

None of the non-executive directors nor the Chairman participates in any of the Company's share schemes and they are not entitled to a bonus or pension contributions.

The non-executive directors' letters of appointment are available for inspection, on request, at the Company's registered office.

## Part 3 – Annual Report on Remuneration

**Introduction**

This Annual Report on Remuneration provides details of the way in which the committee operated during the financial year to 31 December 2017 and explains how Cairn's approved Directors' Remuneration Policy that is described on pages 103-111 was implemented during that period. It also summarises how that policy will be applied in 2018.

In accordance with the Regulations, this part of the report will be subject to an advisory vote at the AGM to be held on 15 May 2018.

The Company's auditors are required to report to Cairn's shareholders on the "auditable parts" of this Annual Report on Remuneration (which have been highlighted as such below) and to state whether, in their opinion, those parts have been properly prepared in accordance with the Regulations and the Companies Act 2006.

**Operation of the remuneration committee during 2017**

**Members of the remuneration committee**

The members of the remuneration committee during the year were as follows:

- M. Jacqueline Sheppard QC (Chair of the committee);
- Iain McLaren;
- Ian Tyler;
- Peter Kallos; and
- Nicoletta Giadrossi (joined the committee on 10 January 2017).

The individuals who served on the committee, each of whom is an independent non-executive director of the Company, had no personal financial interest (other than as shareholders) in the matters decided, no potential conflicts of interest from cross-directorships and no day-to-day involvement in running the business. Biographical information on the committee members is shown on pages 80-81 and details of attendance at the committee's meetings during 2017 are shown on page 89.

**Internal assistance provided to the committee**

The Chief Executive is not a member of the remuneration committee but may attend its meetings by invitation and is consulted in respect of certain of its proposals. The Chief Executive is not involved in any discussions in respect of his own remuneration. During the year, the committee also received material assistance and advice on remuneration policy from the company secretary.

# Directors' Remuneration Report
continued

### External assistance provided to the committee
As and when the remuneration committee considers it appropriate, it takes external advice on remuneration from a number of sources. During the year, it received the following assistance:

| Adviser | Assistance provided to the committee during 2017 | Fees for committee assistance in 2017[1] | Other services provided to the Company during 2017 |
|---|---|---|---|
| **New Bridge Street**[2 3] | Appointed by the committee to give periodic advice on various aspects of the directors' remuneration packages. Also assisted with the preparation of the Directors' Remuneration Report and provided support on a number of miscellaneous remuneration related projects (including the formulation of the new policy approved at the 2017 AGM). | £19,455 | Provided advice on various aspects of remuneration practice across the Group. |
| **Deloitte LLP**[3] | Appointed by the Company's management team but provided assistance to the committee in relation to the design, communication and implementation of the new policy approved at the 2017 AGM. | £18,699 | Provided advice on various aspects of remuneration practice across the Group. |
| **Ernst & Young LLP** | Appointed by the Company to carry out an independent verification of its achievement against performance conditions applicable to the Company's LTIPs and share option schemes. | N/A – no advice provided to the committee | Internal auditors of the Company throughout the year. |
| **Shepherd and Wedderburn LLP** | Appointed by the Company to carry out regular calculations in relation to the LTIP performance conditions. Also assisted with the preparation of the Directors' Remuneration Report. | £24,213 | General legal services to the Group throughout the year. |

Notes:
(1) The bases for charging the fees set out in the table were agreed by the committee at or around the time the particular services were provided and, in general, reflected the time spent by the adviser in question on the relevant matter.
(2) "New Bridge Street" is a trading name of Aon Hewitt Limited, part of Aon plc.
(3) Both New Bridge Street and Deloitte LLP are members of the Remuneration Consultants Group and their work is governed by the Code of Conduct in relation to executive remuneration consulting in the UK.
(4) The committee reviews the performance and independence of all its advisers on a continuous basis.

### Statement of shareholder voting at general meetings
The table below shows the voting outcome at the last general meeting(s) at which shareholders were asked by the Company to approve a resolution relating to its Directors' Remuneration Report and Directors' Remuneration Policy:

| Description of resolution | Date of general meeting | Number of votes 'For' and 'Discretionary' | % of votes cast | Number of votes 'Against' | % of votes cast | Total number of votes cast | Number of votes 'Withheld'[1] |
|---|---|---|---|---|---|---|---|
| To approve the 2016 Directors' Remuneration Report | 19/05/17 | 462,856,515 | 96.46% | 17,004,082 | 3.54% | 479,860,597 | 2,796,549 |
| To approve Directors' Remuneration Policy | 19/05/17 | 465,933,235 | 97.96% | 9,688,508 | 2.04% | 475,621,743 | 7,035,403 |

Note:
(1) A vote withheld is not a vote in law.

The committee welcomed the endorsement of both the above resolutions that was shown by the vast majority of shareholders and gave due consideration to any concerns raised by investors who did not support the resolutions.

**Payments to past directors during 2017 (audited)**

Dr Mike Watts and Jann Brown stood down as executive directors on 15 May 2014 and subsequently ceased employment with the Group on 17 October 2014. As explained in the Annual Report on Remuneration for the year ended 31 December 2014, both of these individuals were treated as 'good leavers' for the purposes of the Company's incentive schemes and were, therefore, allowed to retain their outstanding awards under the 2009 LTIP (subject to time pro-rating). Details of these awards that vested and/or were exercised during 2017 have been included in the relevant sections of this part of the report.

No other payments were made to past directors during the year to 31 December 2017.

**Single total figure table for 2017 (audited)**

The tables below set out the remuneration received by executive directors and non-executive directors during the year in the following categories.

Salary + Benefits + Pension + SIP + Bonus + Long-Term Incentive = **Total Remuneration**

### Executive directors

| | Financial year | Fixed elements of pay | | | | |
|---|---|---|---|---|---|---|
| | | Salary and fees | Benefits[1] | Pension[2] | SIP[3] | Fixed element subtotal |
| **Directors** | | | | | | |
| Simon Thomson | **2017** | **£559,934** | **£32,305** | **£83,990** | **£7,199** | **£683,428** |
| | 2016 | £554,390 | £31,358 | £83,159 | £7,200 | £676,107 |
| James Smith | **2017** | **£364,185** | **£21,417** | **£54,628** | **£7,199** | **£447,429** |
| | 2016 | £360,579 | £25,119 | £54,087 | £7,196 | £446,981 |

| | Financial year | Pay for performance | | | | | |
|---|---|---|---|---|---|---|---|
| | | Annual bonus[4]... | | | | | |
| | | ...paid in cash | ...deferred into shares | ...total bonus | Long-term incentives[5] | Performance element subtotal | Total remuneration |
| **Directors** | | | | | | | |
| Simon Thomson | **2017** | **£538,880** | **£0** | **£538,880** | **£1,770,307** | **£2,309,187** | **£2,992,615** |
| | 2016 | £444,399 | £0 | £444,399 | £961,095 | £1,405,494 | £2,081,601 |
| James Smith | **2017** | **£350,492** | **£0** | **£350,492** | **£1,151,419** | **£1,501,911** | **£1,949,340** |
| | 2016 | £283,055 | £0 | £283,055 | – | £283,055 | £730,036 |

Notes:

(1) Taxable benefits available to the executive directors during 2017 were a company car/car allowance, private health insurance, death-in-service benefit and a gym and fitness allowance. This package of taxable benefits was largely unchanged from 2016.

(2) Additional disclosures relating to the pension provision for the executive directors during 2017 are set out on page 115.

(3) This column shows the face value (at date of award) of matching and free shares provided to the executive directors under the SIP during the relevant period. Further details on the way in which the SIP was operated during 2017 are set out on page 124.

(4) Under the Company's annual bonus scheme for 2017 and later years, any amounts awarded in excess of 100% of salary are delivered in the form of deferred share awards, which normally vest after a period of three years from grant. Further information in relation to the annual bonus scheme for 2017 is provided on pages 116-119.

(5) This column shows the value of shares that vested in respect of LTIP awards with performance conditions that ended during the period in question. Further details of the LTIP's operation during 2017 are provided on pages 119-124.

(6) Following the end of the year to 31 December 2017, the committee considered whether there were any circumstances that could or should result in the recovery or withholding of any sums pursuant to the clawback arrangements contained within the Company's remuneration policy. The conclusion reached by the committee was that it was not aware of any such circumstances.

# Directors' Remuneration Report
continued

## Non-executive directors

| | | Fixed elements of pay | | | | Pay for performance | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Financial year | Salary and fees[2] | Benefits | Pension[3] | Fixed element subtotal | Bonus[3] | Long-term incentives[3] | Performance element subtotal | Total remuneration |
| **Directors** | | | | | | | | | |
| Ian Tyler[1] | **2017** | **£175,000** | **–** | **–** | **£175,000** | **–** | **–** | **–** | **£175,000** |
| | 2016 | £160,000 | – | – | £160,000 | – | – | – | £160,000 |
| Todd Hunt | **2017** | **£74,900** | **–** | **–** | **£74,900** | **–** | **–** | **–** | **£74,900** |
| | 2016 | £74,900 | – | – | £74,900 | – | – | – | £74,900 |
| Iain McLaren[2] | **2017** | **£84,900** | **–** | **–** | **£84,900** | **–** | **–** | **–** | **£84,900** |
| | 2016 | £84,900 | – | – | £84,900 | – | – | – | £84,900 |
| Alexander Berger | **2017** | **£74,900** | **–** | **–** | **£74,900** | **–** | **–** | **–** | **£74,900** |
| | 2016 | £74,900 | – | – | £74,900 | – | – | – | £74,900 |
| M. Jacqueline Sheppard QC[2] | **2017** | **£84,900** | **–** | **–** | **£84,900** | **–** | **–** | **–** | **£84,900** |
| | 2016 | £84,900 | – | – | £84,900 | – | – | – | £84,900 |
| Keith Lough | **2017** | **£74,900** | **–** | **–** | **£74,900** | **–** | **–** | **–** | **£74,900** |
| | 2016 | £74,900 | – | – | £74,900 | – | – | – | £74,900 |
| Peter Kallos | **2017** | **£74,900** | **–** | **–** | **£74,900** | **–** | **–** | **–** | **£74,900** |
| | 2016 | £74,900 | – | – | £74,900 | – | – | – | £74,900 |
| Nicoletta Giadrossi[4] | **2017** | **£73,268** | **–** | **–** | **£73,268** | **–** | **–** | **–** | **£73,268** |
| | 2016 | – | – | – | – | – | – | – | – |

Notes:
(1) As disclosed in the 2016 Annual Report on Remuneration, the Chairman's fee was reviewed during 2016 and increased from £160,000 to £175,000 with effect from 1 January 2017.
(2) The annual fee for each of the non-executive directors (other than the Chairman) for 2017 was £74,900. In addition, a further annual fee of £10,000 was payable to both Iain McLaren and M. Jacqueline Sheppard QC for their roles as Chair of the audit committee and the remuneration committee respectively.
(3) The non-executive directors do not participate in any of the Company's long-term incentive arrangements and are not entitled to a bonus or pension contributions.
(4) Nicoletta Giadrossi was appointed as a non-executive director on 10 January 2017. Her fees for 2017 reflect the period from that date to the year end.

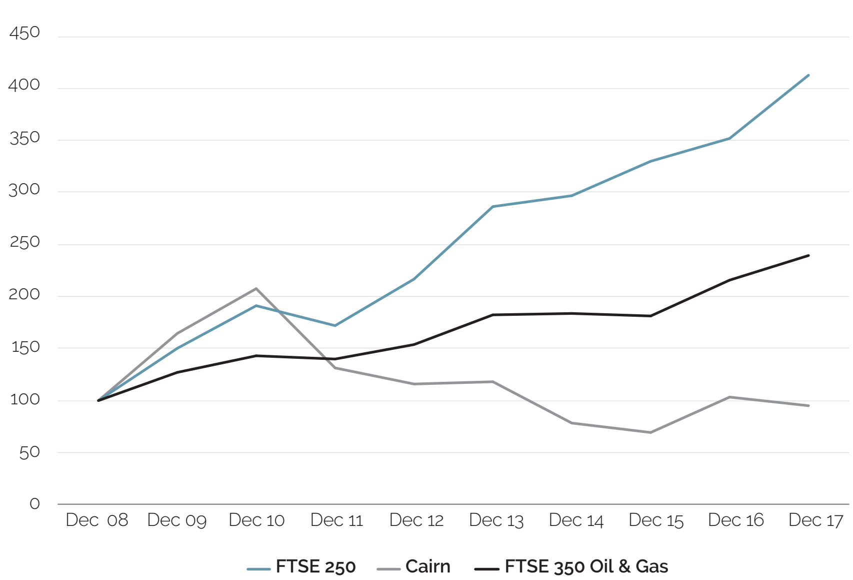
### TSR performance graph and further information on Chief Executive pay

#### Introduction

The following chart demonstrates the growth in value of a £100 investment in the Company and an investment of the same amount in both the FTSE 250 Index and the FTSE 350 Oil & Gas Producers Index over the last nine years. These comparisons have been chosen on the basis that: Cairn was a constituent member of the FTSE 250 Index for the whole of 2017; and the FTSE 350 Oil & Gas Producers Index comprises companies who are exposed to broadly similar risks and opportunities as Cairn.

The table beneath the graph illustrates the movements in the total remuneration of the Company's Chief Executive during the same nine-year period.

#### Performance graph – comparison of nine-year cumulative TSR on an investment of £100



### Total remuneration of Chief Executive during the same nine-year period

| Financial year | Chief Executive | Total remuneration of Chief Executive[1] | Annual variable element award rates for Chief Executive (as % of max. opportunity) | Long term incentive vesting rates for Chief Executive (as % of original award level) |
|---|---|---|---|---|
| 2017 | Simon Thomson | £2,992,615 | 76.9% | 90.8% |
| 2016 | Simon Thomson | £2,081,601 | 80.2% | 81.7% |
| 2015 | Simon Thomson | £1,292,167 | 75% | 23.4% |
| 2014 | Simon Thomson | £1,073,425 | 78.5% | 0% |
| 2013 | Simon Thomson | £962,765 | 63% | 0% |
| 2012 | Simon Thomson | £1,018,570 | 86% | 0% |
| 2011 | Simon Thomson | £3,405,719 | 82% | 121% |
| 2011[2] | Sir Bill Gammell | £4,053,822 | N/A | 106% |
| 2010 | Sir Bill Gammell | £7,302,533 | 58% | 113% |
| 2009 | Sir Bill Gammell | £962,757 | 54% | 0% |

Notes:
(1) The amounts disclosed in this column have been calculated using the same methodology prescribed by the Regulations for the purposes of preparing the single total figure table shown on page 113.
(2) Sir Bill Gammell stood down as Chief Executive on 30 June 2011 and was replaced by Simon Thomson (who had previously been Legal and Commercial Director) with effect from that date. Sir Bill Gammell's "total remuneration" for 2011 shown in the above table reflects the amount of salary, benefits and pension paid to him in respect of the period to 30 June 2011. However, during the year to 31 December 2011, Sir Bill Gammell also received, in connection with the termination of his employment and in settlement of his contractual entitlements, a payment of salary and benefits in lieu of his contractual notice period of one year (£770,000) and a cash bonus under the Company's annual bonus scheme (£625,000).

### Percentage annual change in Chief Executive's remuneration elements compared to all Group employees

The table below illustrates, for various elements of the Chief Executive's 2017 remuneration package, the percentage change from 2016 and compares it to the average percentage change for all the Group's employees in respect of that same period.

| | % change in base salary | % change in taxable benefits | % change in annual bonus |
|---|---|---|---|
| Chief Executive | 1% | 3.02% | 21.26%[1] |
| All Group employees | 1.93%[2] | 6.29%[3] | 14.97% |

Note:
(1) In terms of the directors' remuneration policy that was approved at last year's AGM and which was in force during 2017, the maximum bonus opportunity for executive directors (as a percentage of annual salary) was 125%. This represented an increase from the 100% salary limit that applied during 2016.
(2) The standard level of salary increase across the Group in 2017 was 1%. However, a small number of individuals received higher percentage increases which raised the average for all employees to 1.93%.
(3) This change in taxable benefits is primarily attributable to (i) increases in premium levels for certain insurance policies, and (ii) a higher level of relocation charges.

### Executive directors' base salaries during 2017

Based on a review carried out in December 2016, the following salary increases for executive directors became effective on 1 January 2017:

### 2017 Annual salary details

| | Job title | Annual salary as at 31/12/16 | **Annual salary as at 01/01/17** | % increase with effect from 01/01/17 |
|---|---|---|---|---|
| **Current directors** | | | | |
| Simon Thomson | Chief Executive | £554,390 | **£559,934** | 1% |
| James Smith | CFO | £360,579 | **£364,185** | 1% |

The increases shown in the above table for both Simon Thomson and James Smith were consistent with the level of standard annual salary increase awarded to other employees on 1 January 2017.

### Executive directors' pension provision during 2017 (audited)

As highlighted in the Directors' Remuneration Policy described on pages 103-111, the Company operates a defined contribution, non-contributory Group personal pension plan which is open to all UK permanent employees. The Company contributes 10% of basic annual salary (15% in respect of senior executives) on behalf of all qualifying employees. The Company also has a pension committee which meets on a regular basis to assess the performance and suitability of the Company's pension arrangements.

James Smith is a member of the Company scheme and, during the year, received Company contributions up to his statutory annual allowance. The balance of his 15% of basic salary entitlement was paid as additional salary.

During the year, Simon Thomson received an amount equal to 15% of his annual basic salary in the form of additional salary as his pension arrangements have already reached the relevant lifetime limit.

Details of the actual amounts of pension contributions/additional salary that were paid to the executive directors during 2017 are set out in the "pension" column of the single total figure table on page 113.

# Directors' Remuneration Report
continued

**Annual bonus – 2017 structure and outcome (audited)**
During 2017, Cairn operated an annual bonus scheme for all employees and executive directors. The maximum level of bonus award for executive directors and certain PDMRs for 2017 was 125% of annual salary (as at date of award).

For all participants other than the executive directors, 2017 bonus awards were based on individual, project-based and Company performance measures. Individual and project-based performance was measured through the Company's performance management system and Company performance conditions were based on annually defined KPIs.

As highlighted in last year's Annual Report on Remuneration, 90% of each executive director's bonus opportunity for 2017 was determined by reference to the extent to which certain Group KPIs were achieved, with the remaining 10% being dependent on the satisfaction of personal objectives. Taking into account commercial sensitivities around disclosure, a summary of the relevant targets, ascribed weightings and achievement levels is set out below.

### 2017 annual bonus scheme – Group KPI performance conditions (90% weighting) and achievement levels

| KPI measures and performance achieved in 2017 | | | | Weighting | Bonus awarded | KPI remuneration committee decision |
|---|---|---|---|---|---|---|
| Purpose | 2017 KPI | Measurement | 2017 performance | (as % of allocated proportion of maximum opportunity) | | |
| **Deliver exploration and appraisal success** | | | | | | |
| Grow the reserves and resources base to provide a basis for future growth. | Successfully drill, evaluate and flow test appraisal wells on the SNE field safely and cost effectively to allow preparation of the Evaluation Report and update estimate of resources and capital required to develop the field. | • Drill and test wells SNE-5 and 6 cost effectively and in a timely manner;<br>• Integrate data into subsurface models and refine the reservoir basis of design; and<br>• Update 1C, 2C and 3C resources estimate, phasing of capital and valuations. | • The SNE-5 and 6 wells were delivered safely, ahead of schedule and under budget (-20% versus AFE);<br>• All data was integrated and has defined the first phase of the development;<br>• A resources audit was carried out at year end 2017; and<br>• The final phase of appraisal on SNE resulted in a slight narrowing of the 3C/1C ratio and a slight reduction of the 2C resource. | 15% | 14.25% | Partially achieved |
| | Discover commercial hydrocarbons. | • Develop an acreage retention strategy for Senegal; and<br>• Efficiently discover commercial quantities of hydrocarbons through maturation and drilling of select exploration and appraisal wells across the portfolio. | • An acreage retention strategy was developed in Senegal. Board and JV support successfully obtained for additional contingent funds for drilling VR-1 exploration well, FAN South – 1 exploration/appraisal well, SNE North exploration well (all Senegal) and Druid/Dromberg (Ireland); and<br>• No commercial hydrocarbons were added in 2017. | 10% | | |

| KPI measures and performance achieved in 2017 | | | | Weighting | Bonus awarded | KPI |
|---|---|---|---|---|---|---|
| Purpose | 2017 KPI | Measurement | 2017 performance | (as % of allocated proportion of maximum opportunity) | | remuneration committee decision |
| **Portfolio management** | | | | | | |
| Active portfolio management. | Develop an inventory and timeline of exploration and appraisal opportunities, including prospects and leads which meet Cairn's technical and commercial criteria. | • Secure or mature six or more new independent opportunities from within or outwith the portfolio that meet the business's investment criteria;<br>• Successfully integrate new licences and document a licence management plan for each as part of the 2018 work programme and budget process; and<br>• Ensure the business holds sufficient (more than four) drillable/ potentially drillable prospects by the year end. | • Secured two blocks in the Mexico Licence Round 2.1. Matured new prospects (Maximon and Kukulkan) and delivered draft of the exploration plan to the JV;<br>• Completed two farm-ins in Ireland and acquired new 3D seismic;<br>• Completed one farm-in in Norway;<br>• Secured two new licences in the 2017 APA in Norway;<br>• Matured the Inca, Stjerneskudd and Lynhaug (and took over operatorship of Lynhaug) prospects in Norway for drilling and obtained JV approval;<br>• Awarded one block in the UK 29th Offshore Exploration Licence Round;<br>• Took over operatorship of Ekland in UK; and<br>• Licence management plans were developed. | 16% | 16% | Fully achieved |
| **Deliver operational excellence** | | | | | | |
| Deliver operational excellence in all 2017 activities. | Successfully progress the development and production projects against key milestones, including capex, opex and sales volume targets. Progress North Sea development projects, on time and budget. | • Projects and products delivered to the quality required, on schedule and within budget; and<br>• Ensure projects remain within capital guidance and first oil schedule remains within base case estimates with key milestones met. | • **Catcher –** Successful completion of phase 1 drilling by end of Q3 2017, fully commissioned FPSO departed Singapore on schedule in October 2017, first oil achieved in December 2017 and an oil marketing agreement finalised.<br>• **Kraken, UK –** First oil was achieved in June 2017. However, FPSO commissioning challenges resulted in production volume targets not being met as well as the opex target costs. One cargo lifting sold at >10% discount to Brent.<br>• **Senegal –** Entered into an agreement with Woodside for development activities, developed a gas management plan, attained JV approval of the contracting strategy, prepared the Evaluation Plan and progressing the Exploitation Plan framework.<br>• **Nova –** Front-end engineering and design studies were completed and a draft Field Development Plan has been prepared by the operator for JV review. Commercial agreements in relation to the Gjoa tie-back in preparation. | 24% | 15.15% | Partially achieved |

# Directors' Remuneration Report
continued

| KPI measures and performance achieved in 2017 | | | | Weighting | Bonus awarded | KPI remuneration committee decision |
|---|---|---|---|---|---|---|
| Purpose | 2017 KPI | Measurement | 2017 performance | (as % of allocated proportion of maximum opportunity) | | |
| **Maintain licence to operate (including HSE performance)** | | | | | | |
| Deliver value in a safe, secure and environmentally and socially responsible manner. | • Achieve targets for HSE leading performance indicators (LPIs) linked to the four key categories within the Group's Corporate Responsibility Management System (Business Relationships; Society and Communities; People; and the Environment).<br>• Achieve lagging HSSE indicators set in line with IOGP targets and guidelines.<br>• Investing in people and systems. | • Achievements of leading indicators linked to the four key categories;<br>• Lagging indicators set in line with IOGP targets and guidelines;<br>• Completion and assessment of Management Training Programme;<br>• Successful launch and training for Unit 4 ERP system; and<br>• Establish a new Integrated Information Systems Plan. | • Good progress against leading indicators including revision of CRMS and development of new Code of Ethics;<br>• Training provided to all staff on bribery and corruption, modern slavery, human rights and cyber security;<br>• Developed an impact benefit strategy and successfully launched the Hunger Project community investment in Senegal;<br>• Completed a number of crisis and emergency response training exercises;<br>• Training programme completed for all staff with management duties;<br>• New enterprise resource planning system launched on schedule in August 2017;<br>• Achieved Total Recordable Injury Rate of 1.88 due to two minor medical treatment cases;<br>• No lost time or restricted workday cases; and<br>• Minor release of oil into the sea from ROV, not reportable to the regulator. | 20% | 18.25% | Substantially achieved |
| **Deliver a sustainable business (maintain liquid reserves)** | | | | | | |
| Maintain a self-funding business plan. | Maintain liquid reserves including undrawn committed banking facilities to meet planned funding commitments plus a cushion at all times. | Development of a funding strategy to ensure ability to execute value-generative plan, maintaining liquid reserves to meet planned commitments, whilst retaining a funding cushion (three tests). | • Funding headroom was maintained throughout the year covering the Group's committed forward capital expenditure;<br>• Debt covenants were maintained with material headroom and strengthened through the year;<br>• The Group entered a hedging programme for Catcher and Kraken crude; and<br>• Good progress was made on securing additional sources of finance to support planned Nova and Senegal developments. | 15% | 13% | Substantially achieved |
| | Make tangible progress on the UK-India bi-lateral treaty arbitration in relation to the Cairn India Limited shares freeze. | Milestones in the arbitration, including successfully defending the Government of India's stay and bifurcation applications and maintaining January 2018 as the final merits hearing date. | • Successfully defended the Government of India's motion to stay and/or bifurcate the case;<br>• Maintained deadlines in the procedural timetable;<br>• The final arbitration hearing was delayed from January 2018 to August 2018; and<br>• Unsuccessful in recovering the dividends owed to Cairn which have been seized by the Indian Government. | | | |
| **Totals** | | | | **100%** | **76.65%** | |

### 2017 annual bonus scheme – individual performance conditions (10% weighting) and achievement levels

The personal objectives for each executive director for 2017 were developed in consultation with the committee and related to (i) in the case of the Chief Executive, strategy, management, succession planning and the organisation; and (ii) in the case of the CFO, funding, organisation and people and personal development.

Performance against the above objectives was assessed by the committee in early 2018 and, after careful consideration, it was determined that they had been achieved at a level of 80% in the case of both Simon Thomson and James Smith.

### 2017 annual bonus scheme – overview of awards and actual payments made

The application of the outturn from the above performance condition assessments resulted in the following bonuses becoming payable to Simon Thomson and James Smith:

| | | Simon Thomson | | James Smith | |
|---|---|---|---|---|---|
| | | Group KPI measures | Individual conditions | Group KPI measures | Individual conditions |
| **Award elements** | Weighting (as a % of max. bonus opportunity) | 90% | 10% | 90% | 10% |
| | x | | | | |
| | Achievement level | 76.65% | 80% | 76.65% | 80% |
| | = | | | | |
| | Award (as % of max. bonus opportunity) | 68.99% | 8% | 68.99% | 8% |
| **Total award** | Aggregate achievement level (as % of max. bonus opportunity) | 76.99% | | 76.99% | |
| | x | | | | |
| | Max. bonus opportunity (as % of salary) | 125% | | 125% | |
| | = | | | | |
| | Total award (as % of salary) | 96.24% | | 96.24% | |
| | Total award (as an amount) | £538,880 | | £350,492 | |
| **Form of payment** | Cash payment[1] | £538,880 | | £350,492 | |
| | Deferred share award[2] | £0 | | £0 | |

Notes:

(1) Cash payments due under the annual bonus were paid to the relevant individuals shortly after completion of the assessment of the relevant performance measures and conditions.

(2) Under the Company's annual bonus scheme for 2017, any amounts that had been awarded in excess of 100% of salary would have been delivered in the form of share awards granted under the Company's Deferred Bonus Plan.

The remuneration committee considered that the above final award levels were appropriately reflective of overall performance during the year.

### Long-term incentives during 2017

#### Introduction

During the year to 31 December 2017, the executive directors participated in the Company's 2009 LTIP (which was originally approved by shareholders at the AGM held on 19 May 2009) and its 2017 LTIP (which was approved by shareholders at the AGM held on 19 May 2017).

Both the 2009 LTIP and 2017 LTIP enable selected senior individuals to be granted conditional awards or nil-cost options over ordinary shares, the vesting of which is normally dependent on both continued employment with the Group and the extent to which pre-determined performance conditions are met over a specified period of three years. Following the introduction of the 2017 LTIP during the year to 31 December 2017, no further awards have been, or will be, granted under the 2009 LTIP, although existing entitlements under the earlier arrangement continue to subsist on their original terms.

#### Overview of performance conditions – 2009 LTIP

In the case of all awards under the 2009 LTIP (including those granted during 2014, 2015 and 2016), the performance conditions involve a comparison of the TSR of the Company over a three-year performance period (commencing on the date of grant of the relevant award) with the TSR of a share in each company in a comparator group. At the end of this period, each company in the comparator group is listed in order of TSR performance to produce a "ranking table". The vesting of awards then takes place as follows:

| Ranking of Company against the comparator group | Percentage of ordinary shares comprised in award that vest |
|---|---|
| Below median | 0% |
| Median | 20% |
| Upper decile (i.e. top 10%) | 100% |
| Between median and upper decile | 20%–100% on a straight line basis |

A list of the companies comprised in the comparator groups applicable to all 2009 LTIP awards that were outstanding during 2017 is set out on pages 123-124.

# Directors' Remuneration Report
continued

In order to ensure that the 2009 LTIP encourages and rewards exceptional performance in terms of delivering increased growth and shareholder value, the performance conditions attaching to awards also provide that, where the TSR of the Company produces a ranking at or above the upper decile level in the appropriate comparator group, a participant will then be given the opportunity to increase the percentage of his/her award that vests through the application of a 'multiplier' that is linked to the TSR actually achieved over the performance period. The way in which this multiplier operates is as follows:

| Multiplier applied to determine the number of ordinary shares that actually vest | TSR of the Company over the performance period |
|---|---|
| 1 | 50% or less |
| 1.33 | 100% or more |
| 1–1.33 on a straight line basis | Between 50% and 100% |

However, notwithstanding the performance of the Company against the above targets, no part of an award granted under the 2009 LTIP will vest unless the remuneration committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.

## Overview of performance conditions – 2017 LTIP

For the awards granted to executive directors under the 2017 LTIP during the year ended 31 December 2017 (being the first awards granted under that arrangement), the performance conditions are comprised of two distinct elements, namely:

### Conditions applicable to the "core award"

The first condition applies to that element of each award which is over ordinary shares worth 200% of the individual's salary (the "core award") and involves an assessment of the Company's TSR performance over a three-year performance period (commencing on the date of grant) relative to the performance achieved by a pre-determined comparator group of companies in the same sector (details of which are set out on pages 123-124). Vesting will then take place as follows:

| Ranking of Company against the comparator group | Percentage of ordinary shares comprised in core award that vest |
|---|---|
| Below median | 0% |
| Median | 25% |
| Upper quartile or above | 100% |
| Between median and upper quartile | 25%–100% on a straight line basis |

### Conditions applicable to the "kicker award"

The second condition applies to the remaining part of each grant (the "kicker award"), being an element that is granted over ordinary shares worth 50% of salary. This part of the award will vest in full if, over the same three-year measurement period (i) the Company achieves an upper quartile ranking (or above) in the comparator group; and (ii) the TSR actually achieved by the Company is at least 100%. For the avoidance of doubt, if either of these requirements is not satisfied, no part of the kicker award will vest.

As with the 2009 LTIP, no part of an award granted under the 2017 LTIP will vest unless the remuneration committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.

## Summary of vesting terms, holding periods and clawback arrangements – 2009 and 2017 LTIPs

On any vesting of an award under the 2009 LTIP, 50% of the ordinary shares to which the holder has become entitled are released or become exercisable immediately, with the remaining 50% normally being released or becoming exercisable after a further holding period of one year.

In the case of the grants made under the 2017 LTIP to executive directors in the year ended 31 December 2017, all awards will normally be subject to a holding period of two years following vesting, at the end of which the ordinary shares to which the holder has become entitled will be released or become exercisable. For the avoidance of doubt, this additional holding period will apply to both the kicker and core elements (see above) of these awards.

As noted in the Directors' Remuneration Policy, awards granted under the 2009 and 2017 LTIPs are subject to clawback provisions which may be operated by the committee where, in the period of three years from the end of the applicable performance period, it becomes aware of either a material misstatement of the Company's financial results or an error in the calculation of performance metrics which, had it been known at the relevant time, would have reasonably been expected to have resulted in such lower vesting being determined.

### LTIP awards granted during 2017 (audited)

On 23 May 2017, the following awards under the 2017 LTIP were granted to executive directors:

| | Type of award | Basis of award granted | Share price at date of grant[3] | No. of shares over which award originally granted | % of shares over which award originally granted that vest at threshold[4] | Face value (£'000) of… …shares over which award originally granted[5] | Face value (£'000) of… …max. no. of shares to vest if all performance measures met[5] | Vesting determined by performance over |
|---|---|---|---|---|---|---|---|---|
| **Directors** | | | | | | | | |
| Simon Thomson | Nil-cost option | 2.5 x base salary of £559,934 | £2.18 | 642,125 | 20% | £1,400 | £1,400 | 3 years until 22/05/20 |
| James Smith | Nil-cost option | 2.5 x base salary of £364,185 | £2.18 | 417,642 | 20% | £910 | £910 | 3 years until 22/05/20 |

Notes:

(1) Details of the performance conditions applicable to the awards granted in 2017 are provided on page 120.

(2) No price is payable by participants for their shares on the exercise of a nil-cost option granted under the LTIP.

(3) This figure represents the closing mid-market price of a share in the Company for the dealing day immediately preceding the date of grant. (The actual closing price on 23 May 2017 was £2.183.)

(4) As explained on page 120, a 25% threshold vesting percentage applies to the "core" element of these awards (being the element granted over ordinary shares worth 2 x base salary). This represents 20% of the total award (i.e. "core" plus "kicker" elements) that was granted over shares worth 2.5 x base salary.

(5) The values shown in these columns have been calculated by multiplying the "number of shares over which the award was originally granted" by the "share price at date of grant".

### LTIP – awards vesting during the year (audited)

On 18 March 2017, the three-year performance period applicable to the awards granted under the 2009 LTIP on 19 March 2014 to various participants (including current and former executive directors) came to an end. Thereafter, the remuneration committee assessed the relevant performance conditions. The results of this assessment, which was completed on 22 March 2017, can be summarised as follows:

| Performance measure | % of award subject to measure | Performance achieved 2014–2017 | % of award vested |
|---|---|---|---|
| Relative TSR performance against a comparator group of 18 companies with the opportunity for additional multiplier of up to 1.33 to be applied for upper decile/absolute TSR performance. | 100% | Cairn's TSR over the period placed it between the second and third ranked companies in the comparator group. After careful consideration of a variety of factors, the committee also concluded that there had been a sustained improvement in the overall performance of the Company over the three years in question. | 90.82% |

Notes:

(1) Further details of the performance conditions that applied to the above awards are set out on pages 119-120.

(2) At various points in the period 19 March 2014 to 18 March 2017, the committee was required to determine (in accordance with the approved remuneration policy in place at that time) the treatment of those comparator group companies that were the subject of takeover transactions. No other discretions were exercised by the remuneration committee during or after the relevant performance period.

(3) The TSR calculations used to inform the committee's determinations in relation to the above awards were independently verified by Ernst & Young LLP.

# Directors' Remuneration Report
continued

The following table shows, for each current and former director, details of the 2009 LTIP awards that vested during the year:

| | Type of award | Date of grant | No. of shares over which award originally granted | Date of vesting[1] | % of award to vest as per performance condition assessment | No. of shares that vested (after taking account of any time pro-rating requirements)[2] | Value of shares vesting[3] |
|---|---|---|---|---|---|---|---|
| **Current director** | | | | | | | |
| Simon Thomson | Nil-cost option | 19/03/14 | 959,794 | 06/04/17 | 90.82% | 871,643 | £1,770,307 |
| James Smith | Nil-cost option | 19/03/14 | 624,256 | 06/04/17 | 90.82% | 566,922 | £1,151,419 |
| **Former directors** | | | | | | | |
| Jann Brown[4] | Nil-cost option | 19/03/14 | 780,633 | 22/03/17 | 90.82% | 137,776 | £283,681 |
| Dr Mike Watts[4] | Nil-cost option | 19/03/14 | 848,275 | 22/03/17 | 90.82% | 149,715 | £308,263 |

Notes:
(1) The above awards held by former directors vested immediately on the completion of the remuneration committee's assessment of the applicable performance conditions. However, due to internal share dealing restrictions that were in place at that time, the vesting of the awards held by current directors was deferred until 6 April 2017.
(2) On the vesting of a 2009 LTIP award held by a current employee or executive director of the Group, 50% of the shares to which the holder has become entitled are available for immediate exercise, with the remaining 50% normally becoming exercisable after a further period of one year.
(3) The values shown in this column have been calculated by multiplying the number of shares that vested by the closing mid-market price of a share in the Company on the day such vesting occurred. For the awards that vested on 22 March 2017, this price was £2.059 and, for the awards vesting on 6 April 2017, it was £2.031. In the case of current directors, this value has been included in the single figure total for 2017.
(4) As explained on page 113, both Jann Brown and Dr Mike Watts were categorised as 'good leavers' for the purposes of the 2009 LTIP rules with the result that their awards granted in 2014 vested at the same time as those held by all other participants. However, a pro-rata reduction was applied to the number of shares that vested in respect of these individuals' awards to reflect the proportion of the performance period that they were employed by the Group.

### LTIP – awards exercised during 2017 (audited)

Details of vested LTIP awards (which are in the form of nil-cost options) that were exercised by current and former directors during the year to 31 December 2017 are as follows:

| | Date of grant | Plan | Date of vesting | Date of exercise | Number of ordinary shares acquired on exercise | Exercise price | Market value of ordinary shares at date of exercise | Gain on exercise |
|---|---|---|---|---|---|---|---|---|
| **Current director** | | | | | | | | |
| Simon Thomson | 20/03/13 | 2009 LTIP | 22/03/16 | 06/04/17 | 231,033 | Nil | £2.012 | £464,838 |
| | 19/03/14 | 2009 LTIP | 06/04/17 | 06/04/17 | 435,821 | Nil | £2.012 | £876,872 |
| James Smith | 19/03/14 | 2009 LTIP | 06/04/17 | 06/04/17 | 283,461 | Nil | £2.012 | £570,324 |
| **Former director** | | | | | | | | |
| Jann Brown | 19/03/14 | 2009 LTIP | 22/03/17 | 10/04/17 | 137,776 | Nil | £2.145 | £295,530 |
| Dr Mike Watts | 19/03/14 | 2009 LTIP | 22/03/17 | 24/03/17 | 149,715 | Nil | £2.021 | £302,574 |

### LTIP – other awards held by executive directors during the year

For the sake of completeness, and in order to allow comparisons to be made with the awards granted under the LTIPs during 2017, set out below are details of the other unvested entitlements under the plans that were held by current executive directors during the year:

| | Date of grant | Plan | Type of award | Basis of award granted | Share price at date of grant[2] | No. of shares over which award originally granted | % of shares over which award originally granted that vest at threshold | Face value (£'000) of... ...shares over which award originally granted[3] | ...max. no. of shares to vest if all performance measures met[4] | Vesting determined by performance over three years until... |
|---|---|---|---|---|---|---|---|---|---|---|
| **Directors** | | | | | | | | | | |
| Simon Thomson | 19/03/15 | 2009 LTIP | Nil-cost option | 3 x base salary of £546,197 | £1.868 | 877,190 | 20% | £1,639 | £2,179 | 18/03/18 |
| | 16/03/16 | 2009 LTIP | Nil-cost option | 3 x base salary of £554,390 | £1.9407 | 856,994 | 20% | £1,663 | £2,212 | 15/03/19 |
| James Smith | 19/03/15 | 2009 LTIP | Nil-cost option | 3 x base salary of £355,250 | £1.868 | 570,529 | 20% | £1,066 | £1,417 | 18/03/18 |
| | 16/03/16 | 2009 LTIP | Nil-cost option | 3 x base salary of £360,579 | £1.9407 | 557,395 | 20% | £1,082 | £1,439 | 15/03/19 |

Notes:

(1) Further details of the performance conditions that apply to these awards are set out on pages 119-120.

(2) In the case of an award granted in 2015, this figure represents the average of the closing mid-market prices of a share in the Company over the 30 days preceding the date of grant. For a 2016 award, it is the average of such prices over the three days preceding the date of grant.

(3) The values shown in this column have been calculated by multiplying the relevant "number of shares over which the award was originally granted" by the appropriate "share price at date of grant".

(4) The values shown in this column have been calculated by multiplying the relevant "number of shares over which the award was originally granted" by 1.33% (being the vesting percentage that would apply on full satisfaction of all performance conditions to which the awards are subject – see page 120) and multiplying the result by the appropriate "share price at date of grant".

### Comparator group companies applicable to LTIP awards

The table below provides details of the comparator groups applicable to each tranche of awards granted under the 2009 LTIP to executive directors that were outstanding during 2017.

| Company | Comparator group applicable to LTIP awards granted on... 19/03/14 | 19/03/15 | 16/03/16 | 23/05/17 |
|---|---|---|---|---|
| Africa Oil Corp. | | | ✓ | ✓ |
| Afren PLC* | ✓ | ✓ | | |
| Aker BP ASA (formerly named Det Norske Oljeselskap ASA) | | ✓ | ✓ | ✓ |
| BG Group PLC* | ✓ | ✓ | | |
| Cobalt International Energy, Inc. | | | ✓ | ✓ |
| DNO ASA | ✓ | ✓ | ✓ | ✓ |
| Dragon Oil PLC* | | ✓ | | |
| EnQuest PLC | ✓ | ✓ | ✓ | ✓ |
| Faroe Petroleum PLC | ✓ | ✓ | ✓ | ✓ |
| Genel Energy PLC | ✓ | ✓ | ✓ | ✓ |
| JKX Oil & Gas PLC | ✓ | | | |
| Kosmos Energy Limited | | ✓ | ✓ | ✓ |
| Lundin Petroleum AB | ✓ | ✓ | ✓ | ✓ |
| Maurel & Prom | | | ✓ | |
| Niko Resources Limited | ✓ | | | |
| Nostrum Oil & Gas PLC | | ✓ | ✓ | ✓ |
| Ophir Energy PLC | ✓ | ✓ | ✓ | ✓ |

# Directors' Remuneration Report
continued

### Comparator group companies applicable to LTIP awards continued

| Company | Comparator group applicable to LTIP awards granted on… 19/03/14 | 19/03/15 | 16/03/16 | 23/05/17 |
|---|---|---|---|---|
| Petroceltic International PLC* | ✓ | ✓ | ✓ | |
| Premier Oil PLC | ✓ | ✓ | ✓ | ✓ |
| Rockhopper Exploration PLC | ✓ | ✓ | ✓ | ✓ |
| Salamander Energy PLC* | ✓ | | | |
| Santos Limited | ✓ | ✓ | ✓ | ✓ |
| Seplat Petroleum Development Company PLC | | | | ✓ |
| SOCO International PLC | ✓ | ✓ | ✓ | ✓ |
| Sound Energy PLC | | | | ✓ |
| Talisman Energy, Inc* | ✓ | | | |
| Tullow Oil PLC | ✓ | ✓ | ✓ | ✓ |

* Denotes companies that have delisted during the applicable performance period.

### Participation of executive directors in all-employee share schemes during 2017

#### Introduction

In order to encourage increased levels of long-term share ownership amongst its general employee population, the Company launched an HM Revenue and Customs approved SIP in April 2010. The SIP provides eligible employees, including the executive directors, with the following benefits:

- "Partnership shares" – employees can authorise deductions of up to £1,800 per tax year from pre-tax salary, which are then used to acquire ordinary shares on their behalf.
- "Matching shares" – the Company can award further free shares to all participants who acquire partnership shares on the basis of up to two matching shares for every one partnership share purchased. For the tax year 2017/2018, the Company awarded two matching shares for every one partnership share purchased and intends to continue using this award ratio for the tax year 2018/2019.
- "Free shares" – employees can be given up to £3,600 worth of ordinary shares free in each tax year. On 13 April 2017, an award of free shares was made to employees, including to the executive directors.

As the SIP is an "all-employee" arrangement, no performance conditions are imposed in relation to any matching or free shares awarded pursuant to its terms.

#### Details of executive directors' SIP participation in 2017

Details of the shares purchased by and awarded to the executive directors under the SIP during the course of the year are as follows:

| | Total SIP shares held at 01/01/17 | Free shares awarded on 13/04/17 at a price of £2.096 per share | Partnership shares awarded on 05/05/17 at a price of £1.9128 per share | Matching shares awarded on 05/05/17 at a price of £1.9128 per share | Total SIP shares held at 31/12/17 |
|---|---|---|---|---|---|
| **Directors** | | | | | |
| Simon Thomson | 20,436 | 1,717 | 941 | 1,882 | 24,976 |
| James Smith | 12,141 | 1,717 | 941 | 1,882 | 16,681 |

The total number of shares held by each of the current executive directors under the SIP is included in their beneficial shareholdings disclosed in the directors' report on page 128.

### Shareholding guidelines for directors (audited)

The committee believes that a significant level of shareholding by the executive directors strengthens the alignment of their interests with those of shareholders. Accordingly, a formal share ownership policy is in place under which the executive directors are required to build up and maintain a target holding equal to a specified percentage of base salary. During the year ended 31 December 2017, this target holding was increased from 100% of salary to its current level of 200% of salary.

In order to facilitate the achievement of the above requirement, the share ownership policy also provides that, until the necessary holding is achieved, an executive director is obliged to retain shares with a value equal to 50% of the net-of-tax gain arising from any vesting or exercise under the Company's share incentive plans.

The following table discloses the beneficial interest of each director in the ordinary shares of the Company as at 31 December 2017. It also highlights the fact that, on that date, the above shareholding requirements were satisfied by Simon Thomson, Chief Executive, but, in light of his relatively recent appointment as CFO, not by James Smith. However, James Smith does intend to build up his holding over time in accordance with the committee's policy and it is expected that he will reach the necessary levels within the period of five years from joining the Group.

| | Shares held | | | | Awards over shares under the LTIP | | |
|---|---|---|---|---|---|---|---|
| | Ordinary shares[2] | Ordinary shares held in the SIP[3] | Total holding of ordinary shares | Value of holding as a % of salary on 1 January 2018[4] | Ordinary shares subject to vested but unexercised awards[5] | Ordinary shares subject to unvested awards[6] | Total interest in ordinary shares |
| **Executive directors** | | | | | | | |
| Simon Thomson | 988,587 | 24,976 | 1,013,563 | 361% | 435,822 | 2,376,309 | 3,825,694 |
| James Smith | 205,063 | 16,681 | 221,744 | 121% | 283,461 | 1,545,566 | 2,050,771 |
| **Non-executive directors** | | | | | | | |
| Ian Tyler | – | – | – | – | – | – | – |
| Todd Hunt | 72,012 | – | 72,012 | – | – | – | 72,012 |
| Iain McLaren | 32,878 | – | 32,878 | – | – | – | 32,878 |
| Alexander Berger | 40,008 | – | 40,008 | – | – | – | 40,008 |
| M. Jacqueline Sheppard QC | 7,000 | – | 7,000 | – | – | – | 7,000 |
| Keith Lough | – | – | – | – | – | – | – |
| Peter Kallos | 10,982 | – | 10,982 | – | – | – | 10,982 |
| Nicoletta Giadrossi | – | – | – | – | – | – | – |
| | **1,356,530** | **41,657** | **1,398,187** | | **719,283** | **3,921,875** | **6,039,345** |

Notes:
(1) Details of the Company's share ownership policy for executive directors are set out above.
(2) Includes shares held by connected persons.
(3) Under the rules of the SIP, certain shares awarded to participants must be retained in the plan for a specified "holding period" of up to five years. The receipt of these shares is not subject to the satisfaction of performance conditions.
(4) Share price used is the average share price over the year to 31 December 2017.
(5) This column shows all vested but unexercised awards under the LTIP that were held by the director concerned as at 31 December 2017.
(6) This column shows all unvested and outstanding awards under the LTIP that were held by the director concerned as at 31 December 2017 (i.e. including those granted during the year). Details of these entitlements, the vesting of which is subject to the satisfaction of performance conditions, are set out on page 121.

### Dilution of share capital pursuant to share plans during 2017

In any ten-year rolling period, the number of ordinary shares which may be issued in connection with the Company's "discretionary share plans" (which includes both the LTIPs and the share option/award schemes used to incentivise less senior employees) cannot exceed 5% of the Company's issued ordinary share capital.

In addition, in any ten-year rolling period, the number of ordinary shares which may be issued in connection with all of the Company's employee share schemes (whether discretionary or otherwise) cannot exceed 10% of the Company's issued ordinary share capital.

It should also be noted that all shares acquired by or awarded to participants under the SIP and the Deferred Bonus Plan are existing ordinary shares purchased in the market. As a result, neither the SIP nor the Deferred Bonus Plan involves the issue of new shares or the transfer of treasury shares.

### Board appointments with other companies during 2017

The Board believes, in principle, in the benefits of executive directors accepting positions as non-executive directors of other companies in order to widen their skills and knowledge for the benefit of the Company, provided that the time commitments involved are not unduly onerous. The executive directors are permitted to retain any fees paid for such appointments.

The appointment of any executive director to a non-executive position with another company must be approved by the nomination committee. In the case of a proposed appointment to a company within the oil and gas industry, permission will only normally be given if the two companies do not compete in the same geographical area.

Details of the non-executive positions with other companies that were held by Cairn's executive directors during 2017, and the fees that were payable, are as follows:

| | Position held | Fees received for the year to 31 December 2017 |
|---|---|---|
| **Current directors** | | |
| Simon Thomson | Non-executive director, Graham's The Family Dairy Limited | **£35,000** |

### Relative importance of spend on pay

Set out below are details of the amounts of, and percentage change in, remuneration paid to or receivable by all Group employees and distributions to shareholders in the years ended 31 December 2016 and 2017.

| | Financial Year 2016 | **Financial Year 2017** | % change |
|---|---|---|---|
| Employee costs (US$m) | 30.4 | **34.2** | 12.5%[1] |
| Distributions (US$m)[2] | 0 | **0** | 0% |

Note:
(1) This rise in employee costs is largely attributable to the headcount increase that occurred within the business during 2017.
(2) For the purposes of the above table, "Distributions" include amounts distributed to shareholders by way of dividend and share buyback.

# Directors' Remuneration Report
continued

**Implementation of remuneration policy in 2018**
The following table provides details of how the Company intends to implement the key elements of the current Directors' Remuneration Policy described on pages 103-111 during the year to 31 December 2018.

<table>
<tr><th>Remuneration element</th><th>Implementation during 2018</th></tr>
<tr><td>Base salary</td><td>Both of the executive directors received a 1% increase in base salary on 1 January 2018 – this was in line with the standard annual increase awarded to other employees on that date. After applying this increase, details of the base salaries payable to both the current executive directors for the year to 31 December 2018 are as follows:<br>• Simon Thomson, Chief Executive – £565,533; and<br>• James Smith, CFO – £367,826.</td></tr>
<tr><td>Benefits</td><td>Executive directors will continue to receive the same benefits as in 2017.</td></tr>
<tr><td>Annual bonus – 2018</td><td>In accordance with the requirements of the policy, executive directors will be eligible to receive a bonus of up to 125% of base salary depending on the extent to which specified measures are satisfied over 2018. However, any bonus awarded to an executive director in excess of 100% of salary will be deferred into Cairn shares for a period of three years.<br><br>The whole of the Chief Executive's and CFO's 2018 bonus opportunity will be based on the Group KPIs described below (with details of the weightings specified in brackets):<br>• HSSE/CR (15%);<br>– Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Business Relationships, Society and Communities, People and the Environment).<br>– Achieve lagging HSSE indicators set in line with IOGP targets and guidelines.<br>• New Ventures (10%);<br>– Secure two or more new exploration opportunities that meet corporate hurdles and offer exploration drilling within five years. Measured against tests of control, commercial robustness and materiality.<br>• Exploration (25%);<br>– Mature six or more prospects with all internal reviews completed.<br>– Drill four or more exploration wells before year end 2018.<br>– Efficiently discover commercial quantities of hydrocarbons in line with pre-drill estimates at an attractive Group finding efficiency rate.<br>• Development (17%);<br>– Mature the SNE Senegal development and funding plans for presentation to the Government of Senegal.<br>▪ Timely submission of the SNE Area Evaluation Report, Exploitation Plan and associated Environmental and Social Impact Assessment.<br>▪ Approval of the Exploitation Plan and associated Exploitation Area by the end of the PSC; finalisation and approval of JV financing plan.<br>– Mature the Nova development project in Norway to Final Investment Decision.<br>▪ Submission of Plan of Development to Norwegian authorities in H1 2018 and all internal approvals in place to complete a Final Investment Decision and approve the Operator entering into acceptable contractual commitments on behalf of the JV during 2018.<br>• Production/Cash flow (15%);<br>– Deliver target production volumes, operating costs and crude values from Kraken and Catcher at pre-determined levels.<br>▪ The committee has agreed minimum target and stretch net oil production volumes, operating costs and average crude realisation relative to Brent, as well as 1P/2P reserves tests.<br>• Maintain balance sheet strength/funding (18%);<br>– Develop and implement a funding strategy that ensures that an executable funding plan (including FID decisions, new venture opportunities and contingent exploration investment plans) is developed and that a minimum headroom cushion from existing sources of funding is maintained.<br>– Success in the action under the UK – India bi-lateral treaty arbitration.<br><br>The specific targets to be used for the purposes of the 2018 bonus scheme are commercially sensitive and have not, therefore, been set out in detail above. However, appropriate disclosure of Group KPIs and Group performance in relation to the 2018 bonus scheme will be included in next year's Annual Report on Remuneration.</td></tr>
</table>

| | |
|---|---|
| **LTIP** | It is intended that, during 2018, the executive directors will be granted awards pursuant to the rules of the 2017 LTIP. These awards will, in aggregate, be over shares worth 250% of salary and will take the following forms:<br>• a "core award" over shares worth 200% of salary – the vesting of which will be dependent on relative TSR performance over a three year period versus a comparator group of peer companies (with 25% vesting for a median ranking rising on a straight-line basis to 100% vesting for upper quartile performance); and<br>• a "kicker award" over shares worth 50% of salary – vesting will be conditional on achieving both an upper quartile ranking in the comparator group and absolute TSR growth over the performance period of at least 100%.<br><br>All shares that vest in relation to an award (whether "core" or "kicker") will be subject to an additional two year holding period.<br><br>The comparator group against which the relative performance conditions are assessed will be the same as the one used for the purposes of the LTIP grants made in 2017 except that Cobalt International Energy, Inc will be excluded following its delisting in early 2018. |
| **SIP** | Executive directors will be given the opportunity to participate in the SIP on the same terms as apply to all other eligible employees in the arrangement. |
| **Pension** | The Company will continue to contribute 15% of basic salary on behalf of executive directors or pay them an equivalent amount of additional salary. |
| **Non-executive directors' fees** | The annual non-executive director fee for 2018 has been increased from £74,900 to £75,500. The additional annual fee for chairing the audit and/or remuneration committees is unchanged at £10,000. |
| **Chairman's fees** | The annual Chairman's fee for 2018 has been increased from £175,000 to £177,000. |

The Directors' Remuneration Report was approved by the Board on 12 March 2018 and signed on its behalf by:

**M. JACQUELINE SHEPPARD QC**
Chair of the remuneration committee

# Directors' Report

The directors of Cairn Energy PLC (registered in Scotland with Company Number SC226712) present their Annual Report and Accounts for the year ended 31 December 2017 together with the audited consolidated financial statements of the Group and Company for the year. These will be laid before the shareholders at the AGM to be held on 15 May 2018.

**Results and dividend**
The Group made a profit after tax of US$263.1 million (2016 loss after tax of US$95.0 million).

The directors do not recommend the payment of a dividend for the year ended 31 December 2017.

**Strategic Report**
Details of the Group's strategy and business model during the year and the information that fulfils the requirements of the strategic report can be found in the strategic report section on pages 02-79 of this document, which are deemed to form part of this report by reference.

Details of Cairn's offices and Cairn's advisers are given at the end of this report.

**Change of control**
All of the Company's share incentive plans contain provisions relating to a change of control and further details of these plans are provided in the directors' remuneration report on pages 101-127. Generally, outstanding options and awards will vest and become exercisable on a change of control, subject to the satisfaction of performance conditions, if applicable, at that time.

On a change of control of the Company resulting in the termination of his employment, the current Chief Executive is entitled to compensation pursuant to his service contract. Further details of the relevant provisions are set out in the directors' remuneration report on page 110. There are no agreements providing for compensation to the Chief Financial Officer or to employees on a change of control and no such provision will be included in the contracts of other future appointees to the Board.

Other than the Senior Secured Borrowing Base Facility Agreement entered into by the Company with BNP Paribas and other syndicated banks dated 18 July 2014 (the 'Facility Agreement'), there are no significant agreements to which the Company is a party that take effect, alter or terminate in the event of a change of control of the Company. In terms of clause 9.2 of the Facility Agreement, if there is a change of control of the Company, any lender may cancel its commitment and declare its participation in all outstanding utilisations, together with accrued interest and all other amounts accrued immediately due and payable.

**Corporate governance**
The Company's corporate governance statement is set out on pages 82-93 and is deemed to form part of this report by reference.

**Directors**
The names and biographical details of the current directors of the Company are given in the board of directors section on pages 80-81. The beneficial interests of the directors in the ordinary shares of the Company are shown below:

| | As at 31 December 2016 Number of Shares | As at 31 December 2017 Number of Shares | As at 12 March 2018 Number of Shares |
|---|---|---|---|
| Simon Thomson | 731,220 | 1,013,563 | 1,013,563 |
| James Smith | 67,237 | 221,744 | 221,744 |
| Ian Tyler | 0 | 0 | 0 |
| Todd Hunt | 72,012 | 72,012 | 72,012 |
| Iain McLaren | 7,878 | 32,878 | 32,878 |
| Jackie Sheppard | 7,000 | 7,000 | 7,000 |
| Alexander Berger | 40,008 | 40,008 | 40,008 |
| Keith Lough | 0 | 0 | 0 |
| Peter Kallos | 0 | 10,982 | 10,982 |
| Nicoletta Giadrossi* | – | 0 | 0 |

* Nicoletta Giadrossi was appointed as a non-executive director of the Company on 10 January 2017.

Details of outstanding awards over ordinary shares in the Company held by the directors (or any members of their families) are set out in the directors' remuneration report on pages 101-127.

None of the directors has a material interest in any contract, other than a service contract, with the Company or any of its subsidiary undertakings. Details of the directors' service contracts are set out in the directors' remuneration report on page 110.

### Share capital
The issued share capital of the Company is shown in section 6 of the notes to the financial statements. As at 12 March 2018, 583,235,781 ordinary shares of 231/169 pence each have been issued, are fully paid up and are quoted on the London Stock Exchange. The rights attaching to the ordinary shares are set out in the Company's Articles of Association. There are no special control rights in relation to the Company's shares and the Company is not aware of any agreements between holders of securities that may result in restrictions on the transfer of securities or on voting rights.

### Voting rights
The following paragraph details the position in relation to voting rights set out in the Company's Articles of Association. However, the Company recognises that best practice is now to hold a poll on all shareholder resolutions. It is the Company's current practice, therefore, to hold a poll and it is committed to doing so going forward.

Subject to any special rights or restrictions attaching to any class of shares, at a general meeting or class meeting, on a show of hands, every member present in person and every duly appointed proxy entitled to vote shall have one vote and on a poll, every member present in person or by proxy and entitled to vote shall have one vote for every share held by him/her. In the case of joint holders of a share, the vote of the senior member who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders and for this purpose seniority shall be determined by the order in which the names stand in the register of members in respect of the joint holding. Under the Companies Act 2006, members are entitled to appoint a proxy, who need not be a member of the Company, to exercise all or any of their rights to attend and to speak and vote on their behalf at a general meeting or class meeting. A member may appoint more than one proxy in relation to a general meeting or class meeting provided that each proxy is appointed to exercise the rights attached to a different share or shares held by that member. A corporation which is a member of the Company may authorise one or more individuals to act as its representative or representatives at any meeting of the Company, or at any separate meeting of the holders of any class of shares. A person so authorised shall be entitled to exercise the same powers on behalf of such corporation as the corporation could exercise if it were an individual member of the Company.

### Restrictions on voting
No member shall, unless the directors of the Company otherwise determine, be entitled in respect of any share held by him/her to attend or vote at a general meeting of the Company either in person or by proxy if any call or other sum presently payable by him/her to the Company in respect of shares in the Company remains unpaid. Further, if a member has been served with a notice by the Company under the Companies Act 2006 requesting information concerning interests in shares and has failed in relation to any shares to provide the Company, within 14 days of the notice, with such information, the directors of the Company may determine that such member shall not be entitled in respect of such shares to attend or vote (either in person or by proxy) at any general meeting or at any separate general or class meeting of the holders of that class of shares. Proxy forms must be submitted not less than 48 hours (or such shorter time as the Board may determine) (excluding, at the Board's discretion, any part of any day that is not a working day) before the time appointed for the holding of the meeting or adjourned meeting or, in the case of a poll taken more than 48 hours after it was demanded, not less than 24 hours (or such shorter time as the Board may determine) before the time appointed for the taking of the poll at which it is to be used.

### Variation of rights
Whenever the share capital of the Company is divided into different classes of shares, all or any of the special rights attached to any class may, subject to statute and unless otherwise expressly provided by the rights attached to the shares of that class, be varied or abrogated either with the consent in writing of the holders of not less than three-fourths in nominal value of the issued shares of that class or with the sanction of a special resolution passed at a separate general meeting of the holders of the shares of that class. At every such separate general meeting, the quorum shall be two persons holding or representing by proxy at least one-third in nominal value of the issued shares of the class. These provisions also apply to the variation or abrogation of the special rights attached to some only of the shares of any class as if the shares concerned and the remaining shares of such class formed separate classes. The rights attached to any class of shares shall, unless otherwise expressly provided by the terms of issue of such shares or the terms upon which such shares are for the time being held, be deemed not to be varied or abrogated by the creation or issue of further shares ranking pari passu with, or subsequent to, the first mentioned shares or by the purchase by the Company of its own shares.

### Transfer of shares
Subject to any procedures set out by the directors in accordance with the Articles of Association, all transfers of shares shall be effected by instrument in writing in any usual or common form or in any other form acceptable to the directors of the Company. The instrument of transfer shall be executed by, or on behalf of, the transferor and (except in the case of fully paid shares) by, or on behalf of, the transferee. The transferor shall be deemed to remain the holder of the shares concerned until the name of the transferee is entered in the register of members of the Company.

The directors may, in their absolute discretion and without assigning any reason therefor, refuse to register a transfer of any share which is not a fully paid share unless such share is listed on the Official List of the UK Listing Authority and traded on the London Stock Exchange's main market for listed securities. The directors may also refuse to register a transfer of a share in uncertificated form where the Company is entitled to refuse (or is excepted from the requirement) under the Uncertificated Securities Regulations 2001 to register the transfer and they may refuse any such transfer in favour of more than four transferees.

The directors may also refuse to register any transfer of a share on which the Company has a lien.

The directors may, in their absolute discretion and without assigning any reason therefor, refuse to register a transfer of any share in certificated form unless the relevant instrument of transfer is in respect of only one class of share, is duly stamped or adjudged or certified as not chargeable to stamp duty, is lodged at the transfer office or at such other place as the directors may determine, is accompanied by the relevant share certificate(s) and such other evidence as the directors may reasonably require to show the right of the transferor to make the transfer and is in favour of not more than four transferees jointly. If the directors refuse to register a transfer, they shall, as soon as practicable and in any event within two months after the date on which the transfer was lodged with the Company (in the case of a share in certificated form) or the date on which the operator instruction (as defined in the Uncertificated Securities Regulations 2001) was received by the Company (in the case of a share in uncertificated form) (or in either case such longer or shorter period (if any) as the Listing Rules may from time to time permit or require), send to the transferee notice of the refusal.

# Directors' Report
continued

### Major Interests in share capital
As at 31 December 2017 and 2 March 2018 (being the latest practicable date prior to the date of this report), the Company had received notification that shareholdings of 3% and over were as set out in the table below.

| | As at 31 December 2017 | % Share Capital | As at 2 March 2018 | % Share Capital |
|---|---|---|---|---|
| BlackRock | 75,132,331 | 12.88 | 74,073,105 | 12.70 |
| MFS Investment Management | 69,990,181 | 12.00 | 57,028,608 | 9.78 |
| Aberdeen Standard Investments | 48,817,376 | 8.37 | 51,674,588 | 8.86 |
| Hotchkis & Wiley | 32,737,920 | 5.61 | 30,917,520 | 5.30 |
| Majedie Asset Management | 29,804,533 | 5.11 | 29,146,139 | 5.00 |
| Kames Capital | 25,403,440 | 4.36 | 27,711,590 | 4.75 |
| Aviva Investors | 22,960,234 | 3.94 | 24,299,994 | 4.17 |
| Janus Henderson Investors | 22,249,505 | 3.81 | 29,599,161 | 5.07 |
| Franklin Templeton | 21,873,139 | 3.75 | 22,157,308 | 3.80 |
| Legal & General Investment Management | 19,819,433 | 3.40 | 18,725,610 | 3.21 |

### Political donations
No political donations were made and no political expenditure was incurred during the year.

### Greenhouse gas emissions
Details of the Group's greenhouse gas emissions can be found in the strategic report section on pages 71-72, which are deemed to form part of this report by reference.

### Financial instruments
The financial risk management objectives and policies of the Company are detailed in section 3.9 of the financial statements.

### Acquisition of own shares
In 2013, the Company initiated a share buy-back programme with a view to maximising shareholder value and optimising capital allocation. The Board considered that the share buy-back programme would maximise shareholder value by increasing the capital gain per share that would be expected in the event of a successful hydrocarbon discovery and that it would be in the best interests of shareholders generally. Therefore, the Company entered into an irrevocable and non-discretionary agreement with its brokers, Morgan Stanley and Jefferies, to repurchase on the Company's behalf and within certain pre-set parameters up to US$300m of ordinary shares in the Company for cancellation.

The Board decided to suspend the share buy-back programme as of 21 March 2014 and therefore no further shares have been repurchased by the Company since that date.

### Appointment and replacement of directors
The Company's Articles of Association provide that directors can be appointed by the Company by ordinary resolution, or by the Board. The nomination committee makes recommendations to the Board on the appointment and replacement of directors. Further details of the rules governing the appointment and replacement of directors are set out in the corporate governance statement on page 86 and in the Company's Articles of Association.

### Directors' indemnities
As permitted by the Company's Articles of Association, the directors have the benefit of an indemnity which is a qualifying third party indemnity provision as defined in Section 234 of the Companies Act 2006 (a 'Qualifying Third Party Indemnity Provision'). The indemnity was in force throughout the last financial year and is currently in force. In May 2014, the Company entered into standalone deeds of indemnity with each of the directors, pursuant to which the directors have the benefit of an indemnity which is a Qualifying Third Party Indemnity Provision. The indemnities came into force upon execution of the deeds of indemnity and are currently in force. The Company also purchased and maintained throughout the financial year directors' and officers' liability insurance in respect of itself and its directors.

### Powers of the directors
Subject to the Company's Articles of Association, UK legislation and any directions given by special resolution, the business of the Company is managed by the Board. The directors currently have powers both in relation to the issuing and buying back of the Company's shares and are seeking renewal of these powers at the forthcoming AGM.

### Articles of association
Unless expressly specified to the contrary therein, the Company's Articles of Association may be amended by a special resolution of the Company's shareholders.

**Directors' Responsibility Statement**
The directors are responsible for preparing the Annual Report and Accounts, the directors' remuneration report and the financial statements in accordance with applicable laws and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law, the directors have prepared the Group and parent Company financial statements in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and as adopted by the European Union (EU). Under company law, the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group and Company for that period. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable IFRS issued by the IASB and adopted by the EU have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Group and Company and enable them to ensure that the financial statements and the Directors' Remuneration report comply with the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Following careful review and consideration of the Cairn Energy PLC Annual Report and Accounts 2017 (the 'Accounts'), the directors consider that the Accounts, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the Group's performance, business model and strategy.

Each of the directors, whose names and functions are listed in the board of directors section on pages 80-81, confirm that, to the best of their knowledge:

- the Group financial statements, which have been prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position, and profit of the Group and loss of the Company; and
- the strategic report section on pages 02-79 of this document includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

**Disclosure of information to auditors**
The directors of the Company who held office at 31 December 2017 confirm that, as far as they are aware, there is no relevant audit information of which the Company's auditors are unaware. In making this confirmation, the directors have taken appropriate steps to make themselves aware of the relevant audit information and to establish that the Company's auditors are aware of this information.

**AGM 2018**
The AGM of the Company will be held in the Castle Suite of The Caledonian, a Waldorf Astoria Hotel, Princes Street, Edinburgh EH1 2AB at 12 noon (BST) on Tuesday 15 May 2018. The resolutions to be proposed at the AGM are set out and fully explained in the Circular containing the Notice of AGM which has been posted to shareholders together with this Annual Report and Accounts.

**Recommendation**
The Board considers that all of the resolutions to be considered at the AGM are in the best interests of the Company and its shareholders as a whole and unanimously recommends that you vote in favour of all of the proposed resolutions, as they intend to do in respect of their own beneficial shareholdings.

By order of the Board

**DUNCAN WOOD**
Company Secretary
12 March 2018

# Independent Auditors' Report to the Members of Cairn Energy PLC

**Report on the audit of the financial statements**

## Opinion

In our opinion, Cairn Energy PLC's group financial statements and company financial statements (the 'financial statements'):

- give a true and fair view of the state of the group's and of the company's affairs as at 31 December 2017 and of the group's profit and the group's and the company's cash flows for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union and, as regards the company's financial statements, as applied in accordance with the provisions of the Companies Act 2006; and
- have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and Accounts (the 'Annual Report'), which comprise: the group and company balance sheets as at 31 December 2017; the group income statement and statement of comprehensive income, the group and company statements of cash flows and the group and company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit Committee.

## Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ('ISAs (UK)') and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Independence

We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

During the period, we identified that we had provided translation services in respect of the 2016 statutory accounts of an immaterial subsidiary that did not form part of our audit evidence in respect of the group audit. This service is prohibited by paragraph 5.167R(c) of the FRC Ethical Standard, and upon identifying the breach, we immediately ceased providing the services. We confirm that, based on our assessment of this breach, and the subsequent actions taken, we have not, in our view, compromised our independence.

Other than the matter referred to above, and to the best of our knowledge and belief, we declare that no non-audit services prohibited by the FRC's Ethical Standard were provided to the group or the company.

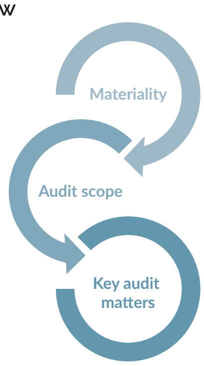
Other than those disclosed in note 6.4 to the financial statements, we have provided no non-audit services to the group or the company in the period from 1 January 2017 to 31 December 2017.

## Our audit approach

### Context

The context for our audit is set by Cairn Energy PLC's ('Cairn') major activities in 2017. In the year, Cairn's non-operated assets in the North Sea, Kraken and Catcher, achieved first oil production. Cairn also continued their exploration and appraisal programme offshore Senegal. Away from core operations, Cairn's main focus has been dealing with the continued restriction on the ability to sell its shares in Vedanta Limited, and the ongoing discussions with the Indian Tax Authorities in relation to the final assessment order received in February 2016, and the associated international arbitration process. Cairn also implemented a new group wide Enterprise Resource Planning ('ERP') system during the year.

### Overview




- Overall group materiality: $32.5 million (2016: $24.5 million), based on 1% of total assets.
- Overall company materiality: $28.3 million (2016: $15.0 million), based on 1% of total assets.

- We performed the majority of audit work in the UK, with PwC Norway performing the audit work on the Norway component. The group audit team visited Norway as part of the audit process.
- Our audit scope included 97% of group total assets.

- Risk of impairment of exploration/producing assets and goodwill.
- Potential impact on tax provisions of the tax enquiry in relation to Cairn India Limited/Cairn UK Holdings Limited.
- Implementation of the Unit4 ERP system.

### Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

| | Group financial statements | Company financial statements |
|---|---|---|
| **Overall materiality** | $32.5 million (2016: $24.5 million). | $28.3 million (2016: $15.0 million). |
| **How we determined it** | 1% of total assets. | 1% of total assets. |
| **Rationale for benchmark applied** | We believe that total assets is an appropriate measure for a group with significant oil and gas exploration and production assets. Revenues from oil and gas production have only begun towards the end of the year and remain immaterial. | The parent company's purpose is to hold investments in the subsidiaries of the group. The parent company has limited income statement transactions, therefore the appropriate benchmark for assessing materiality is total assets. |

Whilst we consider that an asset based materiality remains appropriate for the reasons set out above, in light of the increasing materiality year on year we have formally considered whether our audit testing approach has been sufficient for certain income statement line items. After reviewing the work we have undertaken for each income statement line, we reduced our testing threshold for one of our tests but otherwise concluded that no additional work was required.

For each component in the scope of our group audit, we allocated a materiality that is less than our overall group materiality. The range of materiality allocated across components was between $556,000 and $30,000,000. Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above $1.6 million (Group audit) (2016: $1.2 million) and $1.4 million (Company audit) (2016: $0.8 million) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

### The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

We gained an understanding of the legal and regulatory framework applicable to the group and the industry in which it operates, and considered the risk of acts by the group which were contrary to applicable laws and regulations, including fraud. We designed audit procedures at group and significant component level to respond to the risk, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. We focused on laws and regulations that could give rise to a material misstatement in the group and company financial statements, including, but not limited to, the Companies Act 2006, the Listing Rules, UK tax legislation and equivalent local laws and regulations applicable to significant component teams. Our tests included, but were not limited to, review of the financial statement disclosures to underlying supporting documentation, enquiries with management, enquiries with external legal counsel, review of significant component auditors' work and review of internal audit reports in so far as they related to the financial statements. There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it.

We did not identify any key audit matters relating to irregularities, including fraud. As in all of our audits we also addressed the risk of management override of internal controls, including testing journals and evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

# Independent Auditors' Report to the Members of Cairn Energy PLC continued

### How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the geographic structure of the group, the location of accounting processes and controls, and the industry in which the group operates.

For operating purposes, the group is structured around three key segments: UK & Norway, Senegal and International. During 2017, UK & Norway has seen all of the development and production activity, with the main exploration activity occurring in Senegal.

For accounting purposes, the group is structured into 24 reporting units (or "components"). The majority of the finance function is based in Edinburgh, other than the UK & Norway component which is primarily accounted for in Stavanger, Norway. As a result of the implementation of the new Group wide ERP system, work performed by PwC Norway was limited to the Norwegian entity included in the UK & Norway component and all other audit work was performed by our UK audit team.

Our group scoping was based on total assets, consistent with our approach to materiality, and identified four financially significant components, comprising a high proportion of total group assets, which required an audit of their complete financial information. A further three components were subject to procedures at the exploration, development and production assets financial statement line item (FSLI) level to obtain sufficient coverage.

The UK team attended an audit planning meeting in Norway, as well as being directly involved in the scoping and review of the work performed by PwC Norway, directing areas of audit work to address the specific audit risks identified by the UK audit team as relevant to the Norwegian component, and maintained contact throughout the execution and completion of the audit, including an audit clearance call involving PwC in the UK and Norway.

Our group audit approach resulted in scope coverage of 97% of the consolidated total assets, our key benchmark for planning and scoping our audit.

### Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

| Key audit matter | How our audit addressed the key audit matter |
|---|---|
| **Risk of impairment of exploration/ producing assets and goodwill**<br><br>Although no impairment triggers have been identified on any material individual assets, this risk has remained consistent with prior year due to the market capitalisation of the group continuing to be below the consolidated net assets. As at 31 December 2017, this difference was $0.5bn (2016: $0.6bn). This is an indicator that some or all of these assets may be impaired.<br><br>Exploration assets of $619.4m relate to costs incurred where there is expected future activity but no approved development plan at present, primarily Cairn's discovery offshore Senegal which accounts for $435 million of this amount.<br><br>Producing assets of $1,206.5m reflects spend to 31 December 2017 on Catcher and Kraken, which both commenced production during the year.<br><br>The goodwill balance of $128.2m arose on the acquisitions of Agora and Nautical in 2012.<br><br>In determining the fair value of a Cash Generating Unit, Cairn management are required to make significant judgements in relation to the key assumptions such as:<br>– long term oil price;<br>– reserve estimates;<br>– production volume profiles;<br>– cost profiles and escalation applied; and<br>– discount rates.<br><br>We focused on this area due to the significant values and the nature of the judgements and assumptions management are required to make in determining the existence of impairment triggers and the amount of impairment.<br><br>Management recorded no impairments during the year and an impairment reversal of $23m on Catcher.<br><br>Refer to notes 2.1, 2.2 and 2.6 to the accounts. | We challenged management's assessment of impairment triggers for exploration assets under IFRS 6 by considering licence conditions, the company's budgets and plans and results of any drilling. We did not identify any additional triggers which had not yet been considered by management.<br><br>We tested management's impairment reviews of goodwill, capitalised Senegal exploration assets and producing assets by performing the work described below:<br>– reviewing the mathematical accuracy of key formulae in the impairment models and found no exceptions;<br>– comparing the assumptions used within the impairment review models to approved budgets and business plans and other evidence of future intentions for the relevant assets, which we found to be materially consistent;<br>– comparing reserves and production profiles and matching capital and operating expenditure forecasts to group approved values, operator estimates or third party reserves audit reports. Where there were differences we sought explanations for these. We also had discussions with the third party reserves auditors who had prepared the reports;<br>– benchmarking key assumptions including commodity price and inflation against external data and recent public announcements from other oil companies;<br>– comparing the discount rates used for each asset to expected ranges prepared by PwC's Valuations team;<br>– reviewing management's sensitivities and performing additional sensitivity analysis over key assumptions in the model in order to assess the potential impact of a range of possible outcomes. We determined that the calculation was most sensitive to assumptions relating to the oil price; and<br>– assessing the inclusion of all appropriate assets and liabilities in the cash generating unit and in particular given that the recoverable amount is determined based on a fair value less costs of disposal, the inclusion or exclusion of certain tax related balances and agreed that all relevant balances had been included.<br><br>We found certain assumptions used by Cairn, including the long-term oil price, to be at the upper end of a reasonable range, while other assumptions, for example the use of a 3 year forward curve, were towards the lower end of a reasonable range. We found that the discount rates for the North Sea producing assets were at the higher end of our expected range, but the discount rate used for Senegal was below our expected range. Our review therefore focused on the sensitivity of the impairment assessments to movements in the long term oil price and discount rates. We ran additional sensitivities on these assumptions and did not identify any potential impairments.<br><br>After performing the testing above, we concluded that no impairment was required, and that reversal of the impairment recognised in previous periods on Catcher was appropriate.<br><br>We also reviewed the related disclosures in the Annual Report for compliance with accounting standards and consistency with the results of our work, with no matters arising. |

| Key audit matter continued | How our audit addressed the key audit matter continued |
|---|---|
| **Potential impact on tax provisions of tax enquiry in relation to Cairn India Limited**<br><br>On 22 January 2014 the Group received a request for information from the Indian tax authorities in respect of amendments introduced in the 2012 Indian Finance Act which seek to tax prior year transactions under legislation applied retroactively. At the same time, the Group received an order not to sell the remaining shares in Cairn India Limited (now Vedanta Limited).<br>In February 2016, a final assessment order was received from the Indian tax authorities for an amount of $4.3 billion (290 billion INR) including interest and penalties.<br>Cairn are continuing to contest this order in the Indian courts and a court of international arbitration and at this point there is still no certainty over the outcome.<br>Management have made judgements relating to the likelihood of an obligation arising and whether there is a need to recognise a provision or disclose a contingent liability. We therefore focused on this area as a result of the uncertainty and the potential material impact to the group.<br>Refer to Note 5.5 to the financial statements. | In assessing the potential impact of the assessment order from the Indian tax authorities we performed the following procedures:<br>– understood the group reconstruction under review, and the potential basis for any claim, including the relevant legislation and other precedent;<br>– read correspondence received by the Group from the Indian tax authorities, updating our evidence from prior audits;<br>– discussed with management the advice and action they had taken with regards to the enquiry and reviewed any associated documents; and<br>– discussed certain aspects of the matter directly with the group's legal advisers.<br>We concluded that the position adopted in the financial statements was reasonable based on the work we performed, in particular:<br>– management's view that no provision for tax should be made at this time;<br>– the adequacy of the disclosure in the Annual Report; and<br>– the impact of the restriction on sale of Vedanta shares on the future funding requirements for the Group.<br>We also considered whether this ongoing enquiry would have any impact on the carrying value of the investment in Vedanta Limited of $1,072.2m. We noted that while the group are restricted from selling the investment, this is a restriction directly on them and not all market participants, and therefore it does not affect the fair value of the underlying investment, which is the basis on which it is carried in the consolidated balance sheet. |
| **Implementation of the Unit4 ERP system**<br><br>Cairn implemented a new group wide ERP system in August 2017. This was considered a significant audit risk given its pervasive impact across the control environment.<br>Specifically, such a system implementation results in increased levels of audit risk in the following areas:<br>– Changes to business processes and controls, including key reconciliations;<br>– The underlying IT General Controls which support those business process; and<br>– The completeness and accuracy of the data migration from the old systems to the Unit4 ERP.<br>Each of these increase the risk around the completeness and accuracy of financial reporting. | We performed testing around three key areas: data migration, solution integrity and business readiness:<br>Data migration<br>– Pre go-live, we understood and inspected the extraction rules being used to transfer information from the legacy systems to Unit4.<br>– Post go-live we re-performed completeness checks on the data and noted no discrepancies.<br>Solution integrity<br>– Pre go-live, we re-performed a sample of system functionality and user acceptance tests to validate the "to-be" processes in Unit4.<br>– Post go-live we performed walkthroughs of key processes and controls over key reporting cycles. We have also tested key reconciliations and baselined key reports.<br>Business readiness<br>– Pre-go live we discussed plans for go-live support specifically IT support.<br>– Post go-live, performed walkthroughs of all key IT processes and controls relevant to the financial statements.<br>Our testing of IT General Controls identified some weaknesses and we adapted our audit approach accordingly.<br>In our year end substantive audit testing, we did not note any unexplained variances when looking at account reconciliations or other issues which would have been indicative of a problem related to the implementation. |

We determined that there were no key audit matters applicable to the company to communicate in our report.

### Going concern

In accordance with ISAs (UK) we report as follows:

| Reporting obligation | Outcome |
|---|---|
| We are required to report if we have anything material to add or draw attention to in respect of the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the group's and the company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements. | We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's and company's ability to continue as a going concern. |
| We are required to report if the directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit. | We have nothing to report. |

# Independent Auditors' Report to the Members of Cairn Energy PLC continued

## Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006, (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

### Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2017 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. (*CA06*)

In light of the knowledge and understanding of the group and company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report. (*CA06*)

### The directors' assessment of the prospects of the group and of the principal risks that would threaten the solvency or liquidity of the group

We have nothing material to add or draw attention to regarding:

- The directors' confirmation on page 40 of the Annual Report that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The directors' explanation on page 41 of the Annual Report as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the directors' statement that they have carried out a robust assessment of the principal risks facing the group and statement in relation to the longer-term viability of the group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the "Code"); and considering whether the statements are consistent with the knowledge and understanding of the group and company and their environment obtained in the course of the audit. (*Listing Rules*)

### Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the directors, on page 131, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the group's and company's position and performance, business model and strategy is materially inconsistent with our knowledge of the group and company obtained in the course of performing our audit.
- The section of the Annual Report on page 95 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The directors' statement relating to the company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

### Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. (*CA06*)

## Responsibilities for the financial statements and the audit

### Responsibilities of the directors for the financial statements

As explained more fully in the Directors' Responsibilities Statement set out on page 131, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the company or to cease operations, or have no realistic alternative but to do so.

**Auditors' responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

**Use of this report**

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

## Other required reporting

### Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

### Appointment

Following the recommendation of the audit committee, we were appointed by the directors on 23 May 2013 to audit the financial statements for the year ended 31 December 2013 and subsequent financial periods. The period of total uninterrupted engagement is 5 years, covering the years ended 31 December 2013 to 31 December 2017.

**MICHAEL TIMAR (SENIOR STATUTORY AUDITOR)**
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Glasgow
12 March 2018

## Contents

## Group Income Statement
## For the year ended 31 December 2017

| | Note | 2017 US$m | 2016 US$m |
|---|---|---|---|
| **Continuing operations** | | | |
| Revenue | 4.2 | **33.3** | – |
| Cost of sales | 4.2 | **(5.9)** | – |
| Depletion and amortisation | 2.2 | **(20.8)** | – |
| **Gross profit** | | **6.6** | – |
| Pre-award costs | 4.3 | **(43.8)** | (17.7) |
| Unsuccessful exploration costs | 2.1 | **(60.7)** | (70.3) |
| Net administrative expenses | 4.4 | **(30.3)** | (34.9) |
| Impairment of intangible exploration/appraisal assets | 2.1 | **–** | (25.3) |
| Reversal of impairment of property, plant & equipment – development/producing assets | 2.2 | **23.0** | – |
| **Operating loss** | | **(105.2)** | (148.2) |
| Net gain on derecognition of financial assets | 3.1 | **402.6** | – |
| Finance income | 4.6 | **77.0** | 14.0 |
| Exceptional provision against finance income receivable | 4.7 | **(104.7)** | – |
| Finance costs | 4.8 | **(13.3)** | (17.3) |
| **Profit/(loss) before taxation from continuing operations** | | **256.4** | (151.5) |
| **Taxation** | | | |
| Tax credit | 5.2 | **6.7** | 56.5 |
| **Profit/(loss) for the year attributable to equity holders of the parent** | | **263.1** | (95.0) |
| **Profit/(loss) per ordinary share – basic (cents)** | 4.9 | **45.58** | (16.56) |
| **Profit/(loss) per ordinary share – diluted (cents)** | 4.9 | **44.52** | (16.56) |

## Group Statement of Comprehensive Income
## For the year ended 31 December 2017

| | Note | 2017 US$m | 2016 US$m |
|---|---|---|---|
| **Profit/(loss) for the year** | | **263.1** | (95.0) |
| **Other comprehensive income – items that may be recycled to the income statement** | | | |
| Surplus on valuation of financial assets | 3.1 | **449.1** | 272.1 |
| Deferred tax charge on valuation of financial assets | 5.2 | **(96.5)** | – |
| Surplus on valuation recycled to income statement | 3.1 | **(435.6)** | – |
| Deferred tax charge on surplus on valuation recycled to income statement | 5.2 | **34.8** | – |
| Currency translation differences | | **76.1** | (104.2) |
| **Other comprehensive income for the year** | | **27.9** | 167.9 |
| **Total comprehensive income for the year attributable to equity holders of the parent** | | **291.0** | 72.9 |

# Group Balance Sheet
## As at 31 December 2017

| | Note | 2017 US$m | 2016 US$m |
|---|---|---|---|
| **Non-current assets** | | | |
| Intangible exploration/appraisal assets | 2.1 | **619.4** | 471.3 |
| Property, plant & equipment – development/producing assets | 2.2 | **1,206.5** | 735.1 |
| Intangible assets – goodwill | 2.5 | **128.2** | 118.9 |
| Other property, plant & equipment and intangible assets | | **10.8** | 1.9 |
| Available-for-sale financial assets | 3.1 | **1,072.2** | 656.1 |
| | | **3,037.1** | 1,983.3 |
| **Current assets** | | | |
| Income tax asset | 5.3 | **38.4** | 26.1 |
| Inventory | 4.2 | **10.4** | – |
| Trade and other receivables | 3.5 | **83.1** | 113.7 |
| Cash and cash equivalents | 3.2 | **86.5** | 334.9 |
| | | **218.4** | 474.7 |
| **Total assets** | | **3,255.5** | 2,458.0 |
| **Current liabilities** | | | |
| Loans and borrowings | 3.3 | **29.8** | – |
| Trade and other payables | 3.6 | **199.2** | 123.0 |
| Deferred revenue | 3.7 | **24.3** | – |
| Finance lease liabilities | 3.4 | **1.5** | – |
| Provisions – other | | **2.8** | – |
| | | **257.6** | 123.0 |
| **Non-current liabilities** | | | |
| Finance lease liabilities | 3.4 | **168.2** | – |
| Deferred tax liabilities | 5.4 | **164.4** | 62.7 |
| Deferred revenue | 3.7 | **49.7** | – |
| Provisions – decommissioning | 2.3 | **121.1** | 79.6 |
| Provisions – other | | **–** | 2.8 |
| | | **503.4** | 145.1 |
| **Total liabilities** | | **761.0** | 268.1 |
| **Net assets** | | **2,494.5** | 2,189.9 |
| **Equity attributable to equity holders of the parent** | | | |
| Called-up share capital | 6.1 | **12.5** | 12.4 |
| Share premium | 6.1 | **488.0** | 488.0 |
| Shares held by ESOP/SIP Trusts | 6.1 | **(10.2)** | (10.2) |
| Foreign currency translation | 6.1 | **(174.9)** | (250.1) |
| Capital reserves – non-distributable | 6.1 | **40.8** | 40.8 |
| Merger reserve | 6.1 | **255.9** | 255.9 |
| Available-for-sale reserve | 6.1 | **223.9** | 272.1 |
| Retained earnings | | **1,658.5** | 1,381.0 |
| **Total equity** | | **2,494.5** | 2,189.9 |

The financial statements on pages 139-185 were approved by the Board of Directors on 12 March 2018 and signed on its behalf by:

**James Smith**
Chief Financial Officer

**Simon Thomson**
Chief Executive

## Group Statement of Cash Flows
## For the year ended 31 December 2017

| | Note | 2017 US$m | 2016 US$m |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Profit/(loss) before taxation from continuing operations | | **256.4** | (151.5) |
| Unsuccessful exploration costs | | **60.7** | 70.3 |
| Depreciation, depletion and amortisation | | **23.4** | 2.7 |
| Share-based payments charge | | **17.5** | 16.7 |
| Impairment of intangible exploration/appraisal assets | | **–** | 25.3 |
| Reversal of impairment of property, plant & equipment – development/producing assets | | **(23.0)** | – |
| Inventory disposal | | **–** | 0.7 |
| Net gain on derecognition of financial assets | | **(402.6)** | – |
| Finance income | | **(77.0)** | (14.0) |
| Exceptional provision against finance income receivable | | **104.7** | – |
| Finance costs | | **13.3** | 17.3 |
| Interest paid | | **(0.6)** | – |
| Income tax received from operating activities | | **2.8** | 6.8 |
| Movement on inventory | | **(10.4)** | – |
| Trade and other receivables movement | 3.5 | **(10.5)** | (0.8) |
| Trade and other payables movement | 3.6 | **(0.5)** | 5.9 |
| Deferred revenue received | 3.7 | **74.6** | – |
| **Net cash used from/(used in) operating activities** | | **28.8** | (20.6) |
| **Cash flows from investing activities** | | | |
| Expenditure on intangible exploration/appraisal assets | | **(186.6)** | (149.1) |
| Expenditure on property, plant & equipment – development/producing assets | | **(145.6)** | (125.2) |
| Income tax received from investing activities | | **27.6** | 28.7 |
| Movement on inventory | | **–** | 0.6 |
| Purchase of other property, plant & equipment and intangible assets | | **(7.9)** | (4.5) |
| Interest received and other finance income | | **15.3** | 2.3 |
| **Net cash used in investing activities** | | **(297.2)** | (247.2) |
| **Cash flows from financing activities** | | | |
| Facility fees, arrangement fees and bank charges | | **(8.3)** | (5.0) |
| Proceeds from borrowings | 3.3 | **29.2** | – |
| Cost of shares purchased | | **(3.9)** | – |
| Proceeds from exercise of share options | | **–** | 0.9 |
| Finance lease reimbursement | 3.4 | **1.4** | – |
| **Net cash flows used from/(used in) financing activities** | | **18.4** | (4.1) |
| Net decrease in cash and cash equivalents | | **(250.0)** | (271.9) |
| Opening cash and cash equivalents at beginning of year | | **334.9** | 602.8 |
| Foreign exchange differences | | **1.6** | 4.0 |
| **Closing cash and cash equivalents** | 3.2 | **86.5** | 334.9 |

# Group Statement of Changes in Equity
## For the year ended 31 December 2017

| | Equity share capital and share premium US$m | Shares held by ESOP/SIP Trust US$m | Foreign currency translation US$m | Merger and capital reserves US$m | Available–for–sale reserve US$m | Retained earnings US$m | **Total equity US$m** |
|---|---|---|---|---|---|---|---|
| At 1 January 2016 | 499.5 | (23.0) | (146.2) | 296.7 | – | 1,472.4 | 2,099.4 |
| Loss for the year | – | – | – | – | – | (95.0) | (95.0) |
| Surplus on valuation of financial assets | – | – | – | – | 272.1 | – | 272.1 |
| Currency translation differences recycled on disposal of subsidiary | – | – | 0.3 | – | – | (0.3) | – |
| Currency translation differences | – | – | (104.2) | – | – | – | (104.2) |
| Total comprehensive income | – | – | (103.9) | – | 272.1 | (95.3) | 72.9 |
| Share-based payments | – | – | – | – | – | 16.7 | 16.7 |
| Exercise of employee share options | 0.9 | – | – | – | – | – | 0.9 |
| Cost of shares vesting | – | 12.8 | – | – | – | (12.8) | – |
| At 31 December 2016 | 500.4 | (10.2) | (250.1) | 296.7 | 272.1 | 1,381.0 | 2,189.9 |
| Profit for the year | – | – | – | – | – | 263.1 | **263.1** |
| Surplus on valuation of financial assets | – | – | – | – | 449.1 | – | **449.1** |
| Deferred tax charge on valuation of financial assets | – | – | – | – | (96.5) | – | **(96.5)** |
| Surplus on valuation recycled to income statement | – | – | – | – | (435.6) | – | **(435.6)** |
| Deferred tax charge on surplus on valuation movement recycled to income statement | – | – | – | – | 34.8 | – | **34.8** |
| Currency translation differences recycled on disposal of subsidiary | – | – | (0.9) | – | – | 0.9 | **–** |
| Currency translation differences | – | – | 76.1 | – | – | – | **76.1** |
| Total comprehensive income | **–** | **–** | **75.2** | **–** | **(48.2)** | **264.0** | **291.0** |
| Share-based payments | – | – | – | – | – | 17.5 | **17.5** |
| Shares issued for cash | 0.1 | (0.1) | – | – | – | – | **–** |
| Cost of shares purchased | – | (3.9) | – | – | – | – | **(3.9)** |
| Cost of shares vesting | – | 4.0 | – | – | – | (4.0) | **–** |
| **At 31 December 2017** | **500.5** | **(10.2)** | **(174.9)** | **296.7** | **223.9** | **1,658.5** | **2,494.5** |

## Section 1 – Basis of Preparation

This section contains the Group's going concern statement and significant accounting policies that relate to the financial statements as a whole. Significant accounting policies specific to one note are included within the note itself. Accounting policies have been consistently applied to all years presented.

This section also includes details on new EU endorsed accounting standards, amendments and interpretations and their expected impact on the performance of the Group, including the impact of IFRS 9, IFRS 15 and IFRS 16.

#### 1.1 Significant Accounting Policies

**a) Basis of preparation**

The consolidated financial statements of Cairn Energy PLC ("Cairn" or "the Group") for the year ended 31 December 2017 were authorised for issue in accordance with a resolution of the directors on 12 March 2018. Cairn is a limited company incorporated and domiciled in the United Kingdom whose shares are publicly traded. The registered office is located at 50 Lothian Road, Edinburgh, Scotland, EH3 9BY. The registered company number is SC226712.

Cairn prepares its financial statements on a historical cost basis, unless accounting standards require an alternate measurement basis. Where there are assets and liabilities calculated on a different basis, this fact is disclosed either in the relevant accounting policy or in the notes to the financial statements. The financial statements comply with the Companies Act 2006 as applicable to companies using International Financial Reporting Standards ("IFRS").

The Group's financial statements are prepared on a going concern basis.

**b) Accounting standards**

Cairn prepares its financial statements in accordance with applicable IFRS, issued by the International Accounting Standards Board ("IASB") as adopted by the EU, and interpretations issued by the IFRS Interpretations Committee, and Companies Act 2006 applicable to companies reporting under IFRS. The Group's financial statements are also consistent with IFRS as issued by the IASB as they apply to accounting periods ended 31 December 2017.

Effective 1 January 2017, Cairn has adopted the following amendments to standards:
- Amendments to IAS 7 Statement of Cash Flows
- Amendments to IAS 12 Income Taxes
- Amendments to IFRS 12 Disclosure of Interests in Other Entities

The adoption of the amendment of IAS 7 results in further disclosure in the financial statements reconciling opening and closing loans and borrowings and finance lease liabilities to respective movements in the cash flow statement (see notes 3.3 and 3.4). The adoption of the other two amendments has had no material impact on Cairn's results or financial statement disclosures.

The following new standards issued by the IASB and endorsed by the EU have yet to be adopted by the Group:
- Amendments to IAS 28 Investments in Associates and Joint Ventures (effective 1 January 2018)
- Amendments to IFRS 2 Share Based Payments (effective 1 January 2018)
- IFRS 9 Financial Instruments (effective 1 January 2018)
- IFRS 15 Revenue from Contracts with Customers (effective 1 January 2018)
- IFRS 16 Leases (effective 1 January 2019)

No early adoption of the above new standards is intended. The amendments to IAS 28 and IFRS 2 are not expected to have any material impact on Cairn's results or financial statement disclosures.

**IFRS 9 Financial Instruments**

The adoption of IFRS 9 will result in re-classification of the Group's available-for-sale financial asset as a financial asset held at fair value through profit and loss. As a result mark-to-market movements currently recorded in other comprehensive income and recycled to the income statement only on disposal or impairment shall now go direct to the income statement. There will be no change to the valuation of the asset.

IFRS 9 also requires entities to adopt an "expected loss" approach to measuring impairment when considering trade and other receivables. Cairn's exposure to credit risk at the year end is low and a provision for expected losses is not expected to be material. This reflects both the low volume of receivables due from third parties at the year end and historic rate of recovery of amounts due from partners in joint operations. There will therefore be no material impact on the Group's financial statements on adoption.

# Section 1 – Basis of Preparation continued

## 1.1 Significant Accounting Policies continued

### b) Accounting standards continued

**IFRS 15 Revenue from Contracts with Customers**

Cairn recognised revenue in 2017 on the sale of oil from the Kraken field in the UK and royalty interest receivable relating to producing fields in Mongolia. The adoption of IFRS 15 is not expected to have any impact on revenue recorded, given that customers are clearly identified, the performance obligations are easily identified and price is readily determinable.

On commencement of Kraken production in 2017 and in accordance with industry practice Cairn elected to classify underlift adjustments within cost of sales rather than as additional revenue. Under IFRS 15, Cairn believe this is the only permissible treatment for such an adjustment.

**IFRS 16 Leases**

IFRS 16 introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments.

During the year, Cairn recognised a right-of-use asset and a finance liability in respect of the Kraken FPSO. All joint operators were party to the lease agreement, therefore Cairn recognised only the Group's 29.5% working interest share in the asset and liability. There will be no change in the accounting on adoption of IFRS 16. The Catcher FPSO is classified as an operating lease under the current accounting standard (see significant accounting judgements in section 3). Under IFRS 16 Cairn will recognise a right-of-use asset and lease liability for the vessel based on the expected charter period. Had IFRS 16 been applicable in the current period, Cairn would have recognised a right-of-use asset and a lease liability of US$177.1m on commencement of the lease. The impact on the income statement for the year would not have been material.

Other operating leases that are currently capitalised in property, plant & equipment – development/producing assets, including drilling rigs, are not considered likely to result in separate right-of-use assets as the lease agreements are less than one year (or will have less than one year remaining on adoption of IFRS 16). Cairn will reassess on adoption on the effective date.

Cairn is continuing to assess accounting for leases held through joint operations, particularly where the operator enters into a lease agreement on behalf of the joint operation but where the joint operators are not direct parties to the lease agreement. Discussions are ongoing with industry peers to reach conclusion on this issue.

Operating leases for land and buildings, including the Group's head office in Edinburgh and subsidiary offices in London and Stavanger, will be recorded as right-of-use assets and lease liabilities on adoption of IFRS 16 but amounts are not expected to be material. The Group has no other significant lease agreements.

Details of current finance leases can be found in note 3.4, while current operating lease commitments are disclosed in notes 2.4, 4.2 and 4.4 as they relate to property, plant & equipment – development/producing assets, production costs and administrative expenses respectively.

### c) Basis of consolidation

The consolidated financial statements include the results of Cairn Energy PLC and its subsidiary undertakings to the balance sheet date. Where subsidiaries follow differing accounting policies from those of the Group, those accounting policies have been adjusted to align with those of the Group. Intercompany balances and transactions between Group companies are eliminated on consolidation, though foreign exchange differences arising on intercompany balances between subsidiaries with differing functional currencies are not offset.

The results of subsidiaries acquired in any year are included in the income statement and statement of cash flows from the effective date of acquisition while the results of subsidiaries disposed of during the year are included in the income statement and statement of cash flows to the date at which control passes from the Group.

### d) Joint arrangements

Cairn is a partner (joint operator) in oil and gas exploration and development licences which are unincorporated joint arrangements. All of the Group's current interests in these arrangements are determined to be joint operations. A full list of oil and gas licence interests can be found on page 186.

Costs incurred relating to an interest in a joint operation are capitalised in accordance with the Group's accounting policies for oil and gas assets as appropriate (notes 2.1 and 2.2). All the Group's intangible exploration/appraisal assets and property, plant & equipment – development/producing assets relate to interests in joint operations.

Cairn's working capital balances relating to joint operations are included in trade and other receivables (note 3.5) and trade and other payables (note 3.6). Any share of finance income or costs generated or incurred by the joint operation is included within the appropriate income statement account.

**1.1 Significant Accounting Policies** continued

**e) Foreign currencies**
These financial statements continue to be presented in US dollars (US$), the functional currency of the parent.

In the financial statements of individual Group companies, Cairn translates foreign currency transactions into the functional currency at the rate of exchange prevailing at the transaction date (or an approximation thereof where not materially different). Monetary assets and liabilities denominated in foreign currency are translated into the functional currency at the rate of exchange prevailing at the balance sheet date. Exchange differences arising are taken to the income statement except for those incurred on borrowings specifically allocable to development projects, which are capitalised as part of the cost of the asset, though there were none in either the current or preceding year.

The Group maintains the financial statements of the parent and subsidiary undertakings in their functional currency. Where applicable, the Group translates subsidiary financial statements into the presentation currency, US$, using the closing rate method for assets and liabilities which are translated at the rate of exchange prevailing at the balance sheet date and rates at the date of transactions for income statement accounts. Cairn takes exchange differences arising on the translation of net assets of Group companies whose functional currency is non-US$ directly to reserves.

Rates of exchange to US$1 were as follows:

| | Closing 2017 | YTD Average 2017 | Closing 2016 | YTD Average 2016 |
|---|---|---|---|---|
| Great British Pound | **0.740** | **0.776** | 0.811 | 0.738 |
| Norwegian Kroner | **8.209** | **8.263** | 8.640 | 8.395 |

**f) Exceptional items**
Cairn does not present any items of income and expense as extraordinary items. However, where items have a significant impact on profit or loss, occur infrequently and are not part of the Group's normal operating cycle, such items may be disclosed as exceptional items on the face of the income statement.

**1.2 Going Concern**
The directors have considered the factors relevant to support a statement of going concern.

In assessing whether the going concern assumption is appropriate, the Board and audit committee considered the Group cash flow forecasts under various scenarios, identifying risks and mitigants and ensuring the Group has sufficient funding to meet its current commitments as and when they fall due for a period of at least 12 months from the date of signing these financial statements.

The directors have a reasonable expectation that the Group will continue in operational existence for this 12-month period and have therefore used the going concern basis in preparing the financial statements.

The Board and audit committee assessments of risk and mitigants to the Group's operational existence beyond this 12-month period is included in the viability statement on page 41.

# Section 2 – Assets and Investments: Oil and Gas Assets and Decommissioning Provisions

This section focuses on the assets in the balance sheet which form the core of Cairn's business. This section quantifies the financial impact of exploration, appraisal and development activities for the year fully described in the operational review on pages 14-17.

Included are details of the appraisal and exploration wells in Senegal, the development projects in the UK North Sea which commenced production in the year and the impairment reviews and tests performed on the Group's assets, including goodwill.

**Significant accounting judgements in this section:**

**Impairment testing of oil and gas assets and related goodwill**

The Group's net assets in the Balance Sheet currently remain in excess of its market value, indicating that the assets may be impaired.

Cairn maintained its long-term oil price assumption at US$70 per boe which it believes reflects current market conditions. The Group's three-year short-term assumption remains linked to the forward curve. Impairment tests resulted in an impairment reversal of US$23.0m in relation to the Group's development assets as a result of reserve upgrades following performance of development wells drilled exceeding pre-drill expectations. Full details are included in note 2.2.

**Lease classification of Kraken and Catcher FPSOs**

Cairn is party to lease agreements on its North Sea producing asset for the charter of an FPSO on each licence. Details of the key accounting judgements on classification of the leases, which determines whether costs are capitalised on commencement, can be found in section 3.

**Key estimates and assumptions in this section:**

**Impairment testing of intangible exploration/appraisal assets and property, plant & equipment – development/producing assets**

Where an indicator of impairment is identified on an intangible exploration/appraisal asset or a development/producing asset, an impairment test is conducted in accordance with the Group's accounting policies. The test compares either the carrying value of the asset or the carrying value of the cash-generating unit ("CGU") containing the asset, to the recoverable amount of that asset or CGU.

The recoverable amount of an asset represents its fair value less costs of disposal. This is based on either a verifiable third-party arm's length transaction from which a fair value can be obtained or, where there is no such transaction, the fair value less costs of disposal of an asset is calculated using a discounted post-tax cash flow model over the field life of the asset. Cairn do not believe that the value in use of the asset would materially exceed its fair value less cost of disposal.

The key assumptions used in the Group's discounted cash flow models reflect past experience and take account of external factors. These assumptions include:

- Short/medium-term oil price based on a three-month average forward curve for three years from the balance sheet date;
- Long-term oil price of US$70 per boe (2016: US$70 per boe) escalated at 2.0% (2016: 2.0%) per annum;
- Reserve estimates of discovered resource (2P and 2C) based on P50 reserve estimates;
- Production profiles based on Cairn's internal estimates including assumptions on performance of assets;
- Cost profiles for the development of the field and subsequent operating costs supplied by the operator and escalated at 2.0% (2016: 2.0%) per annum; and
- Post-tax discount rates of 10% (2016: 10%).

**Impairment testing of goodwill**

The goodwill arising from past corporate transactions in the UK & Norway region is tested for impairment by comparing the recoverable amount against the carrying value of the underlying oil and gas assets in the UK & Norway operating segment. As with the assets above, fair value less costs of disposal are based on discounted post-tax cash flow models where no recent third-party transactions exist on which a reliable market-based fair value can be established. The key assumptions are therefore consistent with those for testing intangible exploration/appraisal assets.

Where resource is prospective, fair value represents the expected net present value of the prospect, risk-weighted for future exploration success. Given the inherent risk associated with exploration activities, valuations of prospective resource are highly subjective.

**Decommissioning estimates**

Provisions for decommissioning are based on the latest estimates provided by operators, subject to review by Cairn and adjustment where deemed necessary. Costs provided to date are an estimate of the cost that would be incurred to remove and decommission facilities that existed at the year end and to plug and abandon development wells drilled to that date. Costs are escalated at 2.0% per annum (2016: 2.0%) and discounted at a risk-free rate of 2.0% (2016: 2.0%).

## 2.1 Intangible Exploration/Appraisal Assets

### Accounting policy

Cairn follows a successful-efforts based accounting policy for oil and gas assets.

Costs incurred prior to obtaining the legal rights to explore an area, pre-award costs, are expensed immediately to the income statement.

Expenditure incurred on the acquisition of a licence interest is initially capitalised on a licence-by-licence basis. Costs are held, undepleted, within intangible exploration/appraisal assets until such time as the exploration phase on the licence area is complete or commercial reserves have been discovered.

Exploration expenditure incurred in the process of determining oil and gas exploration targets is capitalised initially within intangible exploration/appraisal assets and subsequently allocated to drilling activities. Costs are recognised following a cost accumulation model where any contingent future costs on recognition of an asset are recognised only when incurred. This includes where Cairn has entered into a "farm-in" agreement to either acquire or part-dispose of an exploration interest.

A farm-in is an agreement in which a party agrees to acquire from one or more of the existing licencees, an interest in an exploration licence, for a consideration which may consist of the performance of a specified work obligation on behalf of the existing licencees. This obligation may be subject to a monetary cap. Refund of full or partial costs incurred to date may also be included in a farm-in agreement. Where Cairn have part-disposed of an exploration licence interest through a farm-in arrangement, a "farm-down", the contingent consideration payable by the third-party on Cairn's behalf is not recognised in the financial statements. The future economic benefit which Cairn will receive as a result of the farm-down will be dependent upon future success of any exploration drilling.

Exploration/appraisal drilling costs are capitalised on a well-by-well basis until the success or otherwise of the well has been established. The success or failure of each exploration/appraisal effort is judged on a well-by-well basis. Drilling costs are written off on completion of a well unless the results indicate that hydrocarbon reserves exist and there is a reasonable prospect that these reserves are commercial and work to confirm the commercial viability of such hydrocarbons is intended to be carried out in the foreseeable future. Where results of exploration drilling indicate the presence of hydrocarbons which are ultimately not considered commercially viable, all related costs are written off to the income statement.

Following appraisal of successful exploration wells, if commercial reserves are established and technical feasibility for extraction demonstrated and approved in a field development plan, then the related capitalised intangible exploration/appraisal costs are transferred into a single field cost centre within property, plant & equipment – development/producing assets, after testing for impairment (see below).

Proceeds from the disposal or farm-down of part or all of an exploration/appraisal asset are credited initially to that interest with any excess being credited to the income statement.

#### Impairment

Intangible exploration/appraisal assets are reviewed regularly for indicators of impairment and tested for impairment where such indicators exist. An indicator that one of the Group's assets may be impaired is most likely to be one of the following:

- There are no further plans to conduct exploration activities in the area;
- Exploration drilling in the area has failed to discover commercial reserve volumes;
- Changes in the oil price or other market conditions indicate that discoveries may no longer be commercial; or
- Development proposals for appraisal assets in the pre-development stage indicate that it is unlikely that the carrying value of the exploration/appraisal asset will be recovered in full.

In such circumstances the intangible exploration/appraisal asset is allocated to any property, plant & equipment – development/producing assets within the same CGU and tested for impairment. Any impairment arising is recognised in the income statement for the year. Where there are no development assets within the CGU, the excess of the carrying amount of the exploration/appraisal asset over its recoverable amount is charged immediately to the income statement.

# Section 2 – Assets and Investments: Oil and Gas Assets and Decommissioning Provisions continued

## 2.1 Intangible Exploration/Appraisal Assets continued

| | Senegal US$m | UK & Norway US$m | International US$m | Total US$m |
|---|---|---|---|---|
| **Cost** | | | | |
| At 1 January 2016 | 228.2 | 173.3 | 82.6 | 484.1 |
| Foreign exchange | – | (13.4) | 0.3 | (13.1) |
| Additions | 102.1 | 40.9 | 7.5 | 150.5 |
| Unsuccessful exploration costs | – | (28.2) | (57.7) | (85.9) |
| At 31 December 2016 | 330.3 | 172.6 | 32.7 | **535.6** |
| Foreign exchange | – | 12.0 | 0.7 | **12.7** |
| Additions | 104.2 | 33.7 | 63.1 | **201.0** |
| Unsuccessful exploration costs | – | (8.1) | (59.1) | **(67.2)** |
| **At 31 December 2017** | **434.5** | **210.2** | **37.4** | **682.1** |
| **Impairment** | | | | |
| At 1 January 2016 | – | 39.3 | 21.4 | 60.7 |
| Foreign exchange | – | (6.4) | 0.3 | (6.1) |
| Impairment charge | – | 11.0 | 14.3 | 25.3 |
| Unsuccessful exploration costs | – | – | (15.6) | (15.6) |
| At 31 December 2016 | – | 43.9 | 20.4 | **64.3** |
| Foreign exchange | – | 4.2 | 0.7 | **4.9** |
| Unsuccessful exploration costs | – | – | (6.5) | **(6.5)** |
| **At 31 December 2017** | **–** | **48.1** | **14.6** | **62.7** |
| **Net book value** | | | | |
| At 31 December 2015 | 228.2 | 134.0 | 61.2 | 423.4 |
| At 31 December 2016 | 330.3 | 128.7 | 12.3 | 471.3 |
| **At 31 December 2017** | **434.5** | **162.1** | **22.8** | **619.4** |

### Senegal

During 2017, Cairn completed five exploration and appraisal wells in Senegal; the SNE-5 and SNE-6 appraisal wells, the VR-1 dual target exploration/appraisal well and the FAN South-1 and SNE North exploration wells. Cairn has now drilled nine further exploration and appraisal wells to date, following on from the SNE-1 and FAN-1 discovery wells of 2014.

Additions in the year of US$104.2m include US$72.2m of drilling costs associated with the exploration and appraisal wells completed in the year. A further US$32.0m of non-well specific exploration costs and pre-development costs were incurred in 2017.

All costs incurred in Senegal to date remain capitalised. SNE field appraisal and concept select definition are concluding for the first phase of development of the extensive resource base. The joint operators aim to have a government-approved exploitation plan in place by the end of 2018, with a target of first oil in 2021-2023. Work continues to assess the commerciality of the FAN resource base. With the potential future development of the FAN discovery possible as a tie-back to the planned SNE development asset, costs incurred in Senegal are deemed to form a single cash-generating unit.

### UK & Norway

Additions in the current year of US$33.7m include US$9.4m incurred on Nova pre-development activities (Nova was formerly called Skarfjell but has been renamed by the operator) and US$7.2m for the PL682 Tethys well. Further costs of US$17.1m were incurred across the Group's other licences in the region.

Portfolio turnover in the UK & Norway during the year has resulted in the addition of six new licences in Norway, with six relinquished or planned for relinquishment, and one new licence in the UK and two relinquished. Total costs written off in the year relating to relinquished licences were US$8.1m.

The net book value of exploration/appraisal assets remaining capitalised at the year end of US$162.1m includes costs of US$107.4m relating to discovered resource across two fields: the Norwegian Nova discovery (US$90.0m) and the Laverda discovery in the UK North Sea (US$17.4m). The Nova joint operators' plan for development and operation (PDO) is anticipated in H1 2018, with first oil targeted in 2021.

The remaining US$54.7m of cost has been incurred across further exploration licences in the UK and Norwegian North Sea, the Norwegian Sea and the Barents Sea.

**2.1 Intangible Exploration/Appraisal Assets** continued

**International**

Ireland

During 2017 Cairn completed the farm-in to FEL 2/14 in Ireland in advance of the 53/6-1 exploration well. Cairn paid back-costs and an additional share of drilling costs under the farm-in agreement. The subsequent dual-prospect well, targeting the Druid and Drombeg prospects, failed to discover commercial hydrocarbons and the well was plugged and abandoned. Exploration additions and unsuccessful costs include US$29.8m relating to this well.

Further exploration additions in Ireland of US$9.1m were incurred on LO16/18 and LO 16/19 during the year and include the acquisition of seismic data. Inventory adjustments on FEL 2/04 (38%) – Spanish Point resulted in unsuccessful costs of US$4.9m being written off.

Mexico

Cairn secured interests in two new licences, Block 7 and Block 9, in the Mexico offshore bid round in H1 2017. The licences, one operated and one non-operated, are located in the highly prolific yet under-explored Sureste basin. Additions of US$13.1m were incurred in 2017 on these licences, principally licence entry costs including signature bonus.

Western Sahara

The Group has relinquished its interest in the Boujdour Maritime licence offshore Western Sahara, with expenditure of US$11.2m charged as unsuccessful costs. Additions in the year of US$10.2m include amounts provided for remaining work programme commitments to be carried out in 2018.

Other

The remaining additions of US$0.9m and unsuccessful exploration costs of US$6.7m primarily relate to the relinquishment of the Malta Blocks 1, 2 and 3 Area 03 licence.

**Impairment review**

At the year end, Cairn reviewed its intangible exploration/appraisal assets for indicators of impairment. Indicators were identified where future exploration plans remain uncertain or where the carrying value of assets relating to discovered resource may not be fully recovered through future development and production.

Impairment tests were conducted on two UK exploration licences where future development or exploration drilling remains uncertain and on the Nova discovery to ensure the carrying amount is expected to be recovered from future development. No impairment arose.

In 2016, impairments of US$11.0m and US$14.3m were recorded on licences in the UK & Norway and Ireland respectively, where costs of exploration activities to date were not expected to be recovered through subsequent development or no further exploration activity was planned. There are no indicators at 31 December 2017 to suggest that the impairments may be reversed.

**2.2 Property, Plant & Equipment – Development/Producing Assets**

**Accounting policy**

Costs

All costs incurred after the technical feasibility and commercial viability of producing hydrocarbons has been demonstrated, are capitalised within development/producing assets on a field-by-field basis. Subsequent expenditure is capitalised only where it either enhances the economic benefits of the development/producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

Costs of borrowings relating to the ongoing construction of development/producing assets and facilities are capitalised during the development phase of the project. Capitalisation ceases once the asset is ready to commence production.

Net proceeds from any disposal, part-disposal or farm-down of development/producing assets are credited against the appropriate portion of previously capitalised cost. A gain or loss on disposal of a development/producing asset is recognised in the income statement to the extent that the net proceeds, measured at fair value, exceed or are less than the appropriate portion of the net capitalised costs.

Impairment

Development/producing assets are reviewed for indicators of impairment at the balance sheet date. Indicators of impairment for the Group's development assets include:

- Downward revisions of reserve estimates;
- Increases in cost estimates for development projects; or
- A decrease in the oil price or other negative changes in market conditions.

Impairment tests are carried out on each development/producing asset at the balance sheet date where an indicator of impairment is identified. The test compares the carrying value of an asset to its recoverable amount based on the higher of its fair value less costs of disposal or value in use. Where the fair value less costs of disposal supports the carrying value of the asset, no value-in-use calculation is performed.

If it is not possible to calculate the fair value less costs of disposal of an individual asset, the fair value less costs of disposal is calculated for the CGU containing the asset and tested against the carrying value of the assets and liabilities in the CGU for impairment. Where an asset can be tested independently for impairment, this test is performed prior to the inclusion of the asset into a CGU for further impairment tests.

If the carrying amount of the asset or CGU exceeds its recoverable amount, an impairment charge is made.

# Section 2 – Assets and Investments: Oil and Gas Assets and Decommissioning Provisions continued

## 2.2 Property, Plant & Equipment – Development/Producing Assets continued

**Accounting policy** continued

Where there has been a charge for impairment in an earlier period that charge will be reversed in a later period where there has been a change in circumstances to the extent that the recoverable amount is higher than the net book value at the time. In reversing impairment losses, the carrying amount of the asset will be increased to the lower of its original carrying value or the carrying value that would have been determined (net of depletion) had no impairment loss been recognised in prior years.

**Decommissioning**

At the end of the producing life of a field, costs are incurred in plugging and abandoning wells, removing subsea installations and decommissioning production facilities. Cairn recognises the full discounted cost of decommissioning as an asset and liability when the obligation to rectify environmental damage arises. The decommissioning asset is included within property, plant & equipment – development/producing assets with the cost of the related installation. The liability is included within provisions.

Revisions to the estimated costs of decommissioning which alter the level of the provisions required are also reflected in adjustments to the decommissioning asset. The amortisation of the asset is calculated on a unit-of-production basis based on proved and probable reserves. The amortisation of the asset is included in the depletion charge in the income statement and the unwinding of discount of the provision is included within finance costs.

| | UK & Norway US$m | UK & Norway leased asset US$m | Total US$m |
|---|---|---|---|
| **Cost** | | | |
| At 1 January 2016 | 604.7 | – | 604.7 |
| Foreign exchange | (125.2) | – | (125.2) |
| Additions | 276.6 | – | 276.6 |
| At 31 December 2016 | 756.1 | – | **756.1** |
| Foreign exchange | 81.6 | 8.9 | **90.5** |
| Additions | 212.5 | 204.9 | **417.4** |
| Re-measurement of leased assets | – | (36.4) | **(36.4)** |
| **At 31 December 2017** | **1,050.2** | **177.4** | **1,227.6** |
| **Depletion, amortisation and impairment** | | | |
| At 1 January 2016 | 25.1 | – | 25.1 |
| Foreign exchange | (4.1) | – | (4.1) |
| At 31 December 2016 | 21.0 | – | **21.0** |
| Foreign exchange | 2.2 | 0.1 | **2.3** |
| Depletion and amortisation | 17.4 | 3.4 | **20.8** |
| Reversal of impairment | (23.0) | – | **(23.0)** |
| **At 31 December 2017** | **17.6** | **3.5** | **21.1** |
| **Net book value** | | | |
| At 31 December 2015 | 579.6 | – | 579.6 |
| At 31 December 2016 | 735.1 | – | 735.1 |
| **At 31 December 2017** | **1,032.6** | **173.9** | **1,206.5** |

Both Kraken and Catcher developments achieved first oil in 2017. Kraken came on stream in June 2017 and gross production volumes of 2,465,000 barrels were achieved during the period as performance issues connected with FPSO were addressed. Catcher commenced production late December 2017. Additions to development assets in the year of US$109.6m (2016: US$181.1m) and US$102.9m (2016: US$95.5m) relate to the Kraken and Catcher developments respectively.

Kraken additions represent development activity spend of US$100.0m (2016: US$139.0m), all funded through cash and cash equivalents, and a further US$9.6m (2016: US$26.3m) of non-cash decommissioning asset increases.

On Catcher, additions during the year of US$102.9m (2016: US$95.5m) include a final US$5.6m (2016: US$65.2m), settled on Cairn's behalf under prior year carry agreements. Further non-cash additions of US$19.0m (2016: US$26.5m) relate to the increase to the Catcher decommissioning asset.

Depletion of US$17.4m was charged based on production on both assets during the period.

In February 2016 Cairn increased its working interest in Kraken by 4.5% to 29.5%. The additional interest was acquired from First Oil plc for nominal consideration with Cairn liable for working capital liabilities that existed at the date of the agreement. US$15.8m is therefore included within 2016 additions relating to this transaction.

### 2.2 Property, Plant & Equipment – Development/Producing Assets continued

**Leased assets**

On the commencement of Kraken production, US$200.8m was recorded on the balance sheet for the FPSO, as a right-of-use producing asset. This amount represents the net present value of future minimum lease payments of the finance lease liability as at that date – see note 3.4. Subsequent to initial recognition, the lease agreement was amended to include an interim production period to allow the lessor to address operational issues with the FPSO. During this interim production period, minimum lease commitments are reduced to nil, resulting in a reduction to the finance lease liability of US$36.4m and a corresponding reduction to the leased production asset.

Further additions of US$4.1m represents the recognition of a decommissioning asset associated with the FPSO.

**Impairment review**

At the year end, Cairn reviewed its development/producing assets for indicators of impairment.

Impairment tests were conducted on the two UK production assets and this resulted in the reversal of US$23.0m impairments, previously recognised for Catcher. No impairment arose for Kraken. The reversal of impairment results from an expected improvement in performance of the asset and has resulted in an increase in the volume of oil reserves estimated to be recoverable through production.

### 2.3 Provisions – Decommissioning

| | Exploration well abandonment US$m | Development/ producing assets US$m | **Total US$m** |
|---|---|---|---|
| At 1 January 2016 | 6.2 | 30.9 | 37.1 |
| Foreign exchange | (1.0) | (10.3) | (11.3) |
| Unwinding of discount | 0.1 | 0.9 | 1.0 |
| Provided in the year | – | 52.8 | 52.8 |
| At 31 December 2016 | 5.3 | 74.3 | **79.6** |
| Foreign exchange | 0.4 | 7.7 | **8.1** |
| Unwinding of discount (note 4.8) | – | 2.2 | **2.2** |
| (Released)/provided in year | (1.5) | 32.7 | **31.2** |
| **At 31 December 2017** | **4.2** | **116.9** | **121.1** |

The decommissioning provisions represent the present value of decommissioning costs related to the Kraken and Catcher development/producing projects. The provisions are based on operator cost estimates, subject to internal review and amendment where considered necessary and are calculated using assumptions based on existing technology and the current economic environment, with a discount rate of 2% per annum (2016: 2%). The reasonableness of these assumptions is reviewed at each reporting date to take into account any material changes required.

The decommissioning provisions represent management's best estimate of the obligation arising based on work undertaken at the balance sheet date. Actual decommissioning costs will depend upon the prevailing market conditions for the work required at the relevant time.

The decommissioning of the Group's development/producing assets is forecast to occur between 2026 and 2040.

### 2.4 Capital Commitments

| | **2017 US$m** | 2016 US$m |
|---|---|---|
| **Oil and gas expenditure:** | | |
| Intangible exploration/appraisal assets | **63.2** | 126.4 |
| Property, plant & equipment – development/producing assets | **120.8** | 208.8 |
| **Contracted for** | **184.0** | 335.2 |

Capital commitments represent Cairn's share of obligations in relation to its interests in joint operations. These commitments include Cairn's share of the capital commitments of the joint operations themselves.

The capital commitments for intangible exploration/appraisal assets include US$54.3m relating to operations in the UK and Norway. The remaining US$8.9m is evenly split between the Senegal and International business units.

The capital commitments for property, plant & equipment – development/producing assets, which relate entirely to the Group's UK North Sea producing assets, exclude costs of the Kraken FPSO finance lease obligations, which are disclosed in note 3.4.

Cairn enters into operating leases both at a corporate level and together with partners through its interests in joint operations. Operating lease costs for items directly attributable to oil and gas exploration and development activities, such as drilling rigs, are capitalised within intangible exploration/appraisal assets or property, plant & equipment – development/producing assets as appropriate.

# Section 2 – Assets and Investments: Oil and Gas Assets and Decommissioning Provisions continued

### 2.4 Capital Commitments continued

At the year end, Cairn had the following operating lease commitments relating to oil and gas assets. These amounts are also included in total capital commitments above:

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Intangible exploration/appraisal assets** | | |
| Not later than one year | 3.1 | 44.9 |
| | 3.1 | 44.9 |
| **Property, plant & equipment – development/producing assets** | | |
| Not later than one year | 34.5 | 42.4 |
| After one year but no more than five years | 10.3 | 44.8 |
| | 44.8 | 87.2 |

The Group has no further material capital expenditure committed at the balance sheet date.

### 2.5 Intangible Assets – Goodwill

**Accounting policy**
Cairn allocates the purchase consideration on the acquisition of a subsidiary to the assets and liabilities acquired on the basis of fair value at the date of acquisition. Any excess of the cost of acquisition over the fair value of the assets and liabilities is recognised as goodwill. Any goodwill arising is recognised as an asset and is subject to annual review for impairment. Goodwill is written off where circumstances indicate that the recoverable amount of the underlying CGU including the asset may no longer support the carrying value of goodwill. Any such impairment loss arising is recognised in the income statement for the year. Impairment losses relating to goodwill cannot be reversed in future years.

In testing for impairment, goodwill arising on business combinations is allocated from the date of acquisition to the group of CGUs representing the lowest level at which it will be monitored. Cairn's policy is to monitor goodwill at operating segment level. Currently, no operating segments containing goodwill are combined into segments for reporting.

The recoverable amount of a CGU, or group of CGUs, within the segment is based on its fair value less costs of disposal, using estimated cash flow projections over the licence period of the exploration assets risk-weighted for future exploration success. The key assumptions are sensitive to market fluctuations and the success of future exploration drilling programmes. The most likely factor which will result in a material change to the recoverable amount of the cash-generating unit is the result of future exploration drilling, which will determine the licence area's future economic potential.

| | UK & Norway US$m | Total US$m |
|---|---|---|
| **Net book value** | | |
| At 1 January 2016 | 131.9 | **131.9** |
| Foreign exchange | (13.0) | **(13.0)** |
| At 31 December 2016 | 118.9 | **118.9** |
| Foreign exchange | 9.3 | **9.3** |
| **At 31 December 2017** | **128.2** | **128.2** |

Goodwill is fully allocated to the UK & Norway operating segment. At 31 December 2017, the goodwill impairment test did not identify any impairment.

### 2.6 Impairment Testing Sensitivity Analysis

**UK & Norway**

At 31 December 2017, impairment tests were conducted on the Group's exploration/appraisal assets, development/producing assets and goodwill.

The recoverable amount for all assets is based on fair value less costs of disposal estimated using discounted cash flow modelling. The key assumptions used in determining the fair value are often subjective, such as the future oil price assumption, or the operational performance of the assets. With Cairn's two North Sea development projects reaching first oil during the year, reserve estimates have been updated to reflect the performance of development wells which have either been in line or exceeded pre-drill estimates.

Cairn has run sensitivities on its long-term oil price assumption of US$70, using alternate long-term price assumptions of US$65 and US$60 and a long-term assumption equal to the forward curve price at the end of the Group's three-year short-term assumption. These are considered to be reasonably possible changes for the purposes of sensitivity analysis.

There was no impairment of the Group's exploration/appraisal assets or development/producing assets under any of the sensitivities run. The reversal of impairment recorded in the year on development/producing assets would also remain under all sensitivities performed.

The impact of these changes on the carrying value of the Group's assets at the balance sheet date is summarised below:

| Reduction in long-term oil price assumption to: | US$65 US$m | US$60 US$m | Forward Curve US$m |
|---|---|---|---|
| Impairment of goodwill | – | 83.1 | 128.2 |
| **Total impairment** | **–** | **83.1** | **128.2** |

The Group's proved and probable and contingent reserve estimates are based on P50 probabilities. P10 and P90 estimates are also produced but would not provide a reasonable estimate to be used in calculating the fair value of the Group's assets. Cairn's reserve estimates do not materially differ from those of the operators or those prepared independently by third-party reservoir evaluation firms. The reserve estimates are incorporated into production profiles which include assumptions on the performance of the asset. Cairn's current assumption implies a maximum uptime for producing assets of 85% once assets are fully operational.

Sensitivity analysis was performed reducing forecast production volumes and associated operating costs by 10%, reflecting a reduction in the uptime of the assets, which is seen as a reasonably possible alternative. With this reduced production profile, impairment of US$10.9m would arise on goodwill. There would be no impairment of development/producing assets.

**Senegal**

The Group's exploration assets in Senegal, containing the two 2014 discoveries, have been tested for impairment as a single cash generating unit. No impairment was recorded. Further downside sensitivity performed on the Group's oil price assumption did not identify an impairment using any of the alternate price scenarios noted above.

**International**

The Group's portfolio of international assets was reviewed for indicators of impairment but no such indicators were identified. As the assets in this segment which are not already fully impaired are at an early stage in the exploration life-cycle, any impairment test would not be sensitive to changes in the oil price or any other key assumption; if an indicator of impairment was identified on a remaining asset, that asset would be impaired in full.

# Section 3 – Assets, Liabilities and Investments: Financial Assets, Cash and Borrowings, Lease Liabilities and Working Capital

This section includes details of the Group's cash resources and the loans and borrowings drawn in the year, together with details of the finance lease liability recognised on commencement of Kraken production.

Key accounting issues in this section include the impact on Cairn's financial assets of the merger of Cairn India Limited with Vedanta Limited and the provision against dividends receivable.

**Significant accounting judgements in this section:**

### Available-for-sale financial assets

The Group's ~5% shareholding in Vedanta Limited, recognised following the merger with Cairn India Limited, is classified as a non-current available-for-sale financial asset and the closing book value of the asset represents the quoted market price of the Group's residual holding. Although Cairn is currently not able to sell its stake, there is no restriction in the wider market where Vedanta Limited shares trade freely at this price.

### Lease classification of Kraken and Catcher FPSO lease agreements

Cairn is party to lease agreements on its North Sea producing assets for the charter of an FPSO on each licence. In determining whether each lease should be classified as either a finance lease or an operating lease, Cairn has considered the substance of both transactions individually, including the term of each lease in relation to the expected life of the asset and whether options to purchase the FPSO at the end of the lease term are reasonably certain to be exercised.

Cairn concluded that the lease agreement for the Kraken FPSO, where it is considered reasonably certain that the FPSO will be purchased by the joint operation toward the end of the initial term, should be classified as a finance lease. By contrast, the Catcher FPSO, with a shorter initial lease term and with no current expectation that the joint operation shall purchase the FPSO at the end of that lease term, was determined to be an operating lease, with substantially all risks and rewards of ownership remaining with the lessor.

The new accounting standard, IFRS 16 Leases, is effective for Cairn's financial year beginning 1 January 2019 and will require the Catcher FPSO operating leased asset to be recognised on the balance sheet as a right-of-use asset. Further details are provided in section 1.

### Provision against dividends receivable from Cairn India Limited (now Vedanta Limited)

During 2017 the Indian Income Tax Department seized dividends due to Cairn from Cairn India Limited, declared prior to the company's merger with Vedanta Limited, in part-settlement of the disputed tax assessment raised retrospectively on Cairn's 2006 Group reconstruction currently subject to international arbitration (see note 5.5). As a result of the action taken against Cairn, dividends receivable have been fully provided against in the year.

### Accounting for the FlowStream transaction

Cairn entered into a stream agreement with FlowStream during the year, receiving ~US$75m for a share of future Kraken production. Under the agreement, Cairn delivers oil to FlowStream at the point of production (Cairn has agreed to market FlowStream's oil on their behalf), with FlowStream's percentage share of the production from the field agreed at the outset. The price FlowStream receive for the oil is based on market prices.

The transaction does not give rise to a contractual obligation for Cairn to deliver cash or another financial asset to FlowStream; FlowStream's return is entirely dependent on future production from Kraken. As such, Cairn has concluded that this transaction does not give rise to a financial liability; rather, the agreement is considered as a future sale of oil and the proceeds treated as deferred revenue.

**Key estimates and assumptions in this section:**

### Measurement of Kraken FPSO finance lease

The measurement of the Kraken FPSO lease liability of US$200.8m on initial recognition was:
- Calculated from the date the lease agreement became effective which was on commencement of the lease in June 2017;
- Based on minimum lease commitments of 50% from the end of the "ramp-up period" (the period from first oil production to the FPSO operating at contracted performance levels) in the original lease term, with no adjustment for a contingent Interim Production Period agreement;
- Inclusive of the final optional purchase price of US$56.6m;
- Inclusive of refunds due after commencement of the lease resulting from delays in delivering the FPSO; and
- Calculated using an interest rate based on the Group's incremental borrowing rate at commencement rather than a rate determined in the lease agreement which could not be readily determined.

Post initial recognition, adjustments of US$36.4m reduced the lease liability and right-of-use asset. These reduced the minimum lease commitments to nil for the maximum duration of the interim production period; this was agreed between the joint operators and the lessor to allow operational issues with the FPSO to be rectified. The revised liability is computed using an interest rate calculated at the date of the modification.

### 3.1 Available-for-Sale Financial Assets

**Accounting policy**

The Group's available-for-sale financial assets represent listed equity shares and redeemable preference shares which are held at fair value (the quoted market price). Movements in the fair value during the year are recognised directly in equity and are disclosed in the statement of comprehensive income. The cumulative gains or losses that arise on subsequent disposal of the available-for-sale assets are recycled through the income statement.

At each reporting date, the fair value of the financial assets is compared to the value at the date of its initial recognition for signs of a prolonged or significant deficit in the valuation, which would indicate impairment. Where impairment is identified, cumulative losses recognised in other comprehensive income are recycled to the income statement. In the event of a subsequent recovery in the valuation of the assets, there is no reversal of impairment; any such post-impairment gains are recognised as a surplus through other comprehensive income. Any further impairment losses will be recognised through the income statement.

On derecognition of a financial asset, arising either through cash disposal or in exchange for an alternate asset, cumulative gains or losses recognised in other comprehensive income are recycled to the income statement and included with the gain or loss on disposal with the closing book of the financial asset immediately prior to derecognition and the fair value of the consideration received.

| | Listed equity shares US$m | 7.5% Redeemable preference shares of INR10 US$m | Total US$m |
|---|---|---|---|
| **Fair Value** | | | |
| As at 1 January 2016 | 384.0 | – | 384.0 |
| Surplus on valuation | 272.1 | – | 272.1 |
| As at 1 January 2017 | **656.1** | **–** | **656.1** |
| Surplus on valuation of Cairn India Limited shares prior to merger | **163.6** | **–** | **163.6** |
| Disposal of shares in Cairn India Limited on merger | **(819.7)** | **–** | **(819.7)** |
| Addition of shares in Vedanta Limited on merger | **671.8** | **114.9** | **786.7** |
| Surplus on valuation of Vedanta Limited shares after merger | **279.7** | **5.8** | **285.5** |
| **As at 31 December 2017** | **951.5** | **120.7** | **1,072.2** |

In April 2017, Cairn India Limited underwent a merger with Vedanta Limited as a result of which the Group holds both equity shares and redeemable preference shares in Vedanta Limited. Prior to that date the Group held a 9.8% stake in Cairn India Limited via equity shares, the market value of which at the time of the merger was US$819.7m. The market value of the Vedanta shares on the merger date was US$786.7m, resulting in a loss on disposal of US$33.0m.

Movements in the fair value during the year are recognised directly in equity and are disclosed in the statement of comprehensive income. On derecognition, the cumulative surplus arising on the valuation of shares in Cairn India Limited of US$435.6m was recycled from equity, through other comprehensive income, to the income statement, generating a net gain on disposal as summarised below:

| | US$m |
|---|---|
| Loss on disposal of shares in Cairn India Limited on merger with Vedanta Limited | **(33.0)** |
| Cumulative surplus on valuation of shares in Cairn India Limited recycled from equity | **435.6** |
| **Net gain on derecognition of financial assets** | **402.6** |

The derecognition of the financial asset relating to Cairn India Limited also resulted in the recycling of the related deferred tax charge of US$34.8m to the income statement and a credit of US$7.1m direct to the income statement as per note 5.2.

The listed equity shares held at 31 December 2017 in the ordinary share capital of Vedanta Limited, listed in India, have by their nature no fixed maturity or coupon rate. These listed equity securities present the Group with an opportunity for return through dividend income and trading gains and are Level 1 assets measured at fair value. The redeemable preference shares have a coupon of 7.5%, a term of 18 months and will be cash settled in October 2018. These too are Level 1 assets measured at fair value.

Cairn is currently restricted from selling its shares in Vedanta Limited pending conclusion of the ongoing arbitration proceedings. See note 5.5. As timing of the arbitration award may extend beyond one year from the balance sheet date, all available-for-sale financial assets are classified as non-current.

The Group is exposed to equity price risks arising from the listed equity investments it holds in Vedanta Limited.

# Section 3 – Assets, Liabilities and Investments: Financial Assets, Cash and Borrowings, Lease Liabilities and Working Capital continued

### 3.1 Available-for-Sale Financial Assets continued

**Sensitivity analysis**

At the year end the closing Vedanta Limited share price used to value the available-for-sale financial assets was INR329.9 (US$5.17). The movement in the Cairn India Limited share price since 1 January 2016 to the merger date in April 2017 and the movement in the Vedanta Limited equity share price over the period from recognition to the year end is shown below. The graph below does not include the Vedanta Limited redeemable preference shares.


The sensitivity analysis below has been determined based on the exposure to equity price risks at the reporting date, assuming all other variables are held constant. Sensitivities have been run based on various scenarios including the highest and lowest share prices for Vedanta Limited measured in the eight-month period from the merger date. Those prices are determined using the closing INR share price converted to US$ at the daily rate. These are considered to be reasonably possible changes for the purposes of sensitivity analysis.

| As at 31 December 2017 | Effect on profit for year US$m | Effect on equity US$m |
|---|---|---|
| Increase to the highest share price since April 2017 – INR 343 (US$5.32) | – | **21.7** |
| Decrease of 10% on closing share price in 2017 – INR 297 (US$4.65) | – | **(74.6)** |
| Decrease of 20% on closing share price in 2017 – INR 264 (US$4.13) | – | **(149.1)** |
| Decrease to the lowest share price since April 2017 – INR 222 (US$3.45) | **(24.5)** | **(248.3)** |

The impact on the profit for the year arising on the decrease to the lowest share price since April 2017 reflects notional cumulative losses that would be recycled to the income statement from other comprehensive income had the share price been at this level at the balance sheet date.

### 3.2 Cash and Cash Equivalents

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Cash at bank | **24.7** | 24.0 |
| Short-term bank deposits | **24.0** | 147.7 |
| Money market funds | **19.5** | 137.5 |
| Tri-party repurchase transactions | **18.3** | 25.7 |
| Cash and cash equivalents | **86.5** | 334.9 |

Cash and cash equivalents earn interest at floating rates. Short-term investments are made for varying periods ranging from instant access to unlimited, but generally not more than three months depending on the cash requirements of the Group.

Cairn invests surplus funds into high-quality liquid investments, including money market funds, short-term bank deposits and tri-party repurchase transactions ("repos"). Cairn limits the placing of such funds and other investments to banks or financial institutions that have ratings of A- or above from at least two of Moody's, Standard & Poor's or Fitch, unless a sovereign guarantee is available from an AAA rated government. The counterparty limits vary between US$50.0m and US$200.0m depending on the ratings of the counterparty. No investments are placed with any counterparty with a five-year credit default swap exceeding 250 bps. Investments in money market liquidity funds are only made with AAA rated liquidity funds and the maximum holding in any single fund is 5% of total investments. Where investments are made in repos, collateral is fixed income debt securities with a minimum rating of BBB- which is managed by Euroclear. No adjustment is made to the counterparty credit rating to reflect the collateral held when assessing investment options. The Group's Treasury function manages the credit risk associated with such investments as detailed in note 3.9.

### 3.3 Loans and Borrowings

| Reconciliation of opening and closing liability to cash flow movements: | 2017 US$m | 2016 US$m |
|---|---|---|
| Opening liability | – | – |
| Loan advanced recognised in cash flow statement | 29.2 | – |
| Foreign exchange differences | 0.6 | – |
| **Closing liability** | **29.8** | – |

On 3 March 2017, the Group's Norwegian subsidiary, Capricorn Norge AS, signed a two-year exploration financing facility with a syndicate of two international banks, BNP Paribas and Commbank Europe Limited. The facility can be drawn to fund the part of exploration costs, incurred and paid in Norway, which are eligible for a tax refund in accordance with Section 3 of the Norwegian Petroleum Tax Act. It can also be used to fund applicable facility finance costs.

As at 31 December 2017, US$29.8m (NOK 245m) was drawn under the facility. The maximum available amount is currently forecast to be US$51.2m (NOK 421m).

Interest on outstanding debt is charged at the appropriate NIBOR plus an applicable margin. Debt is repayable by the final maturity date, which is the earlier of 31 December 2019 or the date of receipt of the tax refund relating to exploration spend for 2018.

On 18 July 2014, Cairn Energy PLC signed a seven-year reserve-based lending facility, effective 1 August 2014, with a syndicate of international banks. Prior to completion of specified criteria on the Catcher and Kraken developments, the facility can be drawn to fund development costs on those projects and facility finance costs. Once the conditions are met (expected H1 2018) the facility can used for general corporate purposes. The facility had no cash drawings at 31 December 2017 though drawings were made subsequent to the year end. The maximum available is currently forecast to be US$400.0m during the life of the facility. The facility may also be used to issue letters of credit and performance guarantees for the Cairn Group of up to US$175.0m.

Interest on outstanding debt will be charged at the appropriate LIBOR for the currency drawn plus an applicable margin. The facility is subject to bi-annual redeterminations, has a market standard suite of covenants and is cross-guaranteed by all Group companies party to the facility. Debt is repayable in line with the amortisation of bank commitments over the period from 1 July 2018 to the final maturity date of 30 June 2021.

Details of guarantees granted under these facilities can be found in note 6.3.

### 3.4 Finance Lease Liabilities

**Accounting policy**

Finance lease liabilities are measured at inception and recorded on commencement of the asset being brought in to use. Measurement is based on the lower of fair value of the asset or the net present value of minimum lease commitments. Lease payments made in excess of the minimum commitment are charged direct to the income statement as variable lease costs.

Lease payments are allocated between capital and interest based on the rate implicit in the lease agreement. Where this is not practical to determine, the Group's incremental borrowing rate is used.

Where there are changes subsequent to initial recognition, adjustments are made to both the lease liability and the capitalised asset. The interest rate used where the rate implicit in the lease is not determinable is updated at the date of the remeasurement.

# Section 3 – Assets, Liabilities and Investments: Financial Assets, Cash and Borrowings, Lease Liabilities and Working Capital continued

### 3.4 Finance Lease Liabilities continued

| | Minimum lease payments | | Present value of minimum lease payments | |
|---|---|---|---|---|
| | 31 December 2017 US$m | 31 December 2016 US$m | 31 December 2017 US$m | 31 December 2016 US$m |
| Not later than one year | 1.6 | – | 1.5 | – |
| After one year but no more than five years | 88.5 | – | 77.2 | – |
| After five years | 130.5 | – | 91.0 | – |
| **Total future minimum rentals payable** | 220.6 | – | 169.7 | – |
| Less future finance charges | (50.9) | – | | |
| **Present value of minimum lease payments** | 169.7 | – | | |

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Reconciliation of opening and closing liability to cash flow movements:** | | |
| **Opening liability** | – | – |
| **Leases commenced and revisions to leases in the year:** | | |
| Finance lease recognised on commencement | 200.8 | – |
| Revision to finance lease | (36.4) | – |
| | 164.4 | – |
| **Finance lease reimbursements in cash flow statement:** | | |
| Lease payments net of reimbursements received | (4.6) | – |
| Variable lease payments through cost of sales (note 4.2) | 6.0 | – |
| | 1.4 | – |
| **Other movements:** | | |
| Reimbursement due transferred to other receivables | 1.4 | |
| Finance lease interest (note 4.8) | 2.5 | – |
| Sub-total | 3.9 | – |
| **Closing liability** | 169.7 | – |

On 20 December 2013, the Group entered into a bareboat charter agreement with Armada Kraken PTE Limited (a subsidiary of Bumi Armada) for the lease of an FPSO vessel for the Kraken field. The lease agreement became effective on commencement. This agreement is considered to be a finance lease and commenced on the date of first oil production on 23 June 2017.

Subsequent to initial recognition, the lease agreement was amended to incorporate an interim production period while the Kraken FPSO achieves the targeted throughput of oil. During this interim period, minimum lease payments are reduced to nil, with all lease payments dependent upon the availability and performance of the FPSO.

Amounts due to Cairn from the lessor of US$1.4m have been offset by the lessor against outstanding invoices disputed by the operator. Cairn fully expects to recover this amount and the receivable is recognised within other receivables.

### 3.5 Trade and Other Receivables

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Trade and other receivables | 12.9 | 7.4 |
| Accrued income – underlift (see note 4.2) | 5.6 | – |
| Prepayments | 18.8 | 21.4 |
| Dividends receivable | – | 50.6 |
| Joint operation receivables | 45.8 | 34.3 |
| | 83.1 | 113.7 |

Trade and other receivables includes recharges to joint operations of US$3.7m and accrued income relating to finance lease reimbursement of US$1.4m.

Prepayments include US$15.1m (2016: US$14.6m) of facility arrangement fees relating to the reserve based lending facility which will be amortised over the expected useful life commencing from the date the facility is drawn down, in January 2018.

**3.5 Trade and Other Receivables** continued

US$50.6m of dividends receivable from Cairn India Limited were accrued to 31 December 2016. In April 2017, on the merger of Cairn India Limited with Vedanta Limited, a further dividend of US$52.4m was declared, which increased the total due to Cairn to US$104.7m, after exchange adjustments. Post declaration of the April dividend, the Indian Income Tax Department has seized the funds due to Cairn from Vedanta Limited in part-settlement of the assessment order issued relating to the disputed retrospective tax demand. See note 5.5. Consequently, this receivable was fully provided against during the year.

Joint operation receivables include Cairn's working interest share of the receivables relating to joint operations and amounts recoverable from partners in joint operations.

At 31 December 2017 and 31 December 2016, no material amount within the Group's other receivables or joint operation receivables was past due or impaired. In determining the recoverability of other receivables the Group carries out a risk analysis based on the type and age of the outstanding receivable.

**Cash flow impact of movements in Trade and Other Receivables**
The movement in trade and other receivables and accrued income predominately relates to cash flows arising on operating activities.

The movement in prepayments is mainly attributed to investing activities. There are no movements in prepayments relating to financing activities during the year.

Movements in joint operation receivables are recorded through investing activities as either exploration/appraisal or development/producing asset cash flows as appropriate.

The reduction in dividends receivable is a non-cash movement and has no impact on the cash flow statement.

**3.6 Trade and Other Payables**

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Trade payables | 6.9 | 3.1 |
| Other taxation and social security | 2.5 | 2.1 |
| Accruals and other payables | 22.6 | 19.1 |
| Financial liability | 1.4 | – |
| Joint operation payables | 165.8 | 98.7 |
| | 199.2 | 123.0 |

Joint operation payables include Cairn's share of the trade and other payables of joint operations in which the Group participates. Where Cairn is operator of the joint operation, joint operation payables also include amounts that Cairn will settle to third parties on behalf of joint operation partners. The amount to be recovered from partners for their share of such liabilities are included within joint operation receivables.

**Cash flow impact of movements in Trade and Other Payables**
Trade and joint operation payables movement primarily relates to investing activities in the cash flow statement. The movement in accruals and other payables and financial liability predominately relates to cash flows arising on financing activities. Other taxation and social security cost movements are recorded though operating cash flows.

**3.7 Deferred Revenue**

**Accounting policy**
Deferred revenue, arising from a streaming agreement, is treated as cash received in advance of future oil sales. Revenue is recorded at the fair value of the consideration received and is amortised to the income statement on a unit-of-production basis, based on expected future volumes to which the stream provider is entitled.

| FlowStream deferred revenue | Note | 2017 US$m |
|---|---|---|
| Opening deferred revenue | | – |
| Fair value of proceeds received | | 74.6 |
| Released during the year | 4.2 | (3.0) |
| Foreign exchange differences | | 2.4 |
| Closing deferred revenue | | 74.0 |
| Amounts expected to be released within one year | | 24.3 |
| Amounts expected to be released after one year | | 49.7 |
| | | 74.0 |

# Section 3 – Assets, Liabilities and Investments: Financial Assets, Cash and Borrowings, Lease Liabilities and Working Capital continued

### 3.7 Deferred Revenue continued

Deferred revenue of US$74.0m relates to the stream agreement with FlowStream. Under the initial stream agreement, Cairn received US$74.6m in June 2017 with FlowStream receiving 4.5% of future Kraken production. FlowStream's entitlement to Kraken production reduces to 1.35% after FlowStream achieves a 10% return and would further reduce to 0.675% if FlowStream achieves a 15% return.

### 3.8 Financial Instruments

Set out below is the comparison by category of carrying amounts and fair values of all the Group's financial instruments that are carried in the financial statements.

#### Financial assets

| | Carrying amount | | Fair value | |
|---|---|---|---|---|
| | 2017 US$m | 2016 US$m | 2017 US$m | 2016 US$m |
| *Loans and receivables* | | | | |
| Cash and cash equivalents | 86.5 | 334.9 | 86.5 | 334.9 |
| Joint operation receivables | 45.8 | 34.3 | 45.8 | 34.3 |
| Dividend receivable | – | 50.6 | – | 50.6 |
| Trade and other receivables | 12.9 | 7.4 | 12.9 | 8.6 |
| Accrued underlift | 5.6 | – | 5.6 | – |
| *Available-for-sale financial assets* | | | | |
| Listed equity shares | 1,072.2 | 656.1 | 1,072.2 | 656.1 |
| | 1,223.0 | 1,083.3 | 1,223.0 | 1,084.5 |

All of the above loans and receivables are current and held at amortised cost. There are no material impairments of loans and receivables.

All the Group's financial assets are expected to mature within one year.

#### Financial liabilities

| Carrying amount and fair value | 2017 US$m | 2016 US$m |
|---|---|---|
| *Fair value through profit and loss* | | |
| Financial liability | 1.4 | – |
| *Amortised cost* | | |
| Trade payables | 6.9 | 3.1 |
| Joint operation payables | 165.8 | 98.7 |
| Accruals and other payables | 22.6 | 19.1 |
| Loans and borrowings | 29.8 | – |
| Finance lease liability | 169.7 | – |
| | 396.2 | 120.9 |

The fair value of financial assets and liabilities, other than available-for-sale financial assets, has been calculated by discounting the expected future cash flows at prevailing interest rates.

#### Maturity analysis

The expected financial maturity of the Group's financial liabilities is as follows:

| | <1 year US$m | 1-2 years US$m | 2-5 years US$m | >5 years US$m |
|---|---|---|---|---|
| *Fair value through profit and loss* | | | | |
| Financial liability | 1.4 | – | – | – |
| *Amortised cost* | | | | |
| Trade payables | 6.9 | – | – | – |
| Joint operation payables | 165.8 | – | – | – |
| Accruals and other payables | 22.6 | – | – | – |
| Loans and borrowings | – | 29.8 | – | – |
| Finance lease liability | 1.5 | 21.5 | 55.7 | 91.0 |
| | 198.2 | 51.3 | 55.7 | 91.0 |

All financial liabilities at 31 December 2016 were expected to mature within one year.

### 3.8 Financial Instruments continued

#### Fair value

The Group holds listed equity shares and redeemable preference shares as a non-current available-for-sale financial assets. The Group determines and discloses the fair value of these by reference to the quoted (unadjusted) prices in active markets for those shares at the measurement date.

At 31 December 2017 the Group held the following financial instruments measured at fair value:

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Assets measured at fair value – Level 1** | | |
| *Available-for-sale financial assets* | | |
| Equity shares – listed | 951.5 | 656.1 |
| Redeemable preference shares – listed | 120.7 | – |
| **Liabilities measured at fair value – Level 2** | | |
| *Fair value through profit and loss* | | |
| Financial liabilities | (1.4) | – |
| | 1,070.8 | 656.1 |

### 3.9 Financial Risk Management: Objectives and Policies

The main risks arising from the Group's financial instruments are commodity price risk, liquidity risk, credit risk and foreign currency risk. The Board of Cairn Energy PLC, through the Treasury Sub-Committee, reviews and agrees policies for managing each of these risks and these are summarised below. The Group is also exposed to market risk arising from equity price fluctuations on available-for-sale financial assets (see note 3.1 for details).

The Group's treasury function and Executive Team as appropriate are responsible for managing these risks, in accordance with the policies set by the Board. Management of these risks is carried out by monitoring of cash flows, investment and funding requirements using a variety of techniques. These potential exposures are managed whilst ensuring that the Company and the Group have adequate liquidity at all times in order to meet their immediate cash requirements. There are no significant concentrations of risks unless otherwise stated. The Group does not enter into or trade financial instruments, including derivatives, for speculative purposes.

The primary financial assets and liabilities comprise cash, short and medium-term deposits, notice accounts, tri-party purchase transactions ("repos"), certificates of deposit, money market liquidity funds, listed equity shares, intra-group loans and other receivables and financial liabilities held at amortised cost. The Group's strategy has been to finance its operations through a mixture of retained profits and bank borrowings. Other alternatives such as equity issues and other forms of non-investment-grade debt finance are reviewed by the Board, when appropriate.

#### Commodity price risk

Commodity price risk arises principally from the Group's North Sea production, which could adversely affect revenue and debt availability due to changes in commodity prices.

The Group measures commodity price risk through an analysis of the potential impact of changing commodity prices. Based on this analysis and considering materiality and the potential business impact, the Group may choose to hedge.

With production starting in the UK North Sea, the Group commenced a hedging programme in 2017 in order to protect debt capacity and support committed capital programmes. Details of current hedging arrangements, together with sensitivity analysis, can be found in note 4.2.

Transacted derivatives are designated, where possible, in cash flow hedge relationships to minimise accounting income statement volatility. The Group is required to assess the likely effectiveness of any proposed cash flow hedging relationship and demonstrate that the hedging relationship is expected to be highly effective prior to entering into a hedging instrument and at subsequent reporting dates.

#### Liquidity risk

The Group closely monitors and manages its liquidity risk using both short and long-term cash flow projections, supplemented by debt and equity financing plans and active portfolio management. Cash forecasts are regularly produced and sensitivities run for different scenarios including, but not limited to, changes in asset production profiles and cost schedules. The Group's forecasts show that the Group will be able to operate within its current debt facilities and have financial headroom for the 12 months from the date of approval of the 2017 Annual Report and Accounts.

Details of the Group's debt facilities can be found in note 3.3. The Group is subject to quarterly forecast liquidity tests as part of the debt facility agreement. The Group has complied with the liquidity requirements of this test at all times during the year. The Group runs various sensitivities on its liquidity position on a quarterly basis throughout the year. Further details are noted in the viability statement provided on page 41.

The Group currently has surplus cash that is invested in a combination of money market liquidity funds, repos, notice accounts and term deposits with a number of international and UK financial institutions, ensuring sufficient liquidity to enable the Group to meet its short and medium-term expenditure requirements.

# Section 3 – Assets, Liabilities and Investments: Financial Assets, Cash and Borrowings, Lease Liabilities and Working Capital continued

### 3.9 Financial Risk Management: Objectives and Policies continued

**Credit risk**

Credit risk arises from cash and cash equivalents, investments with banks and financial institutions, trade receivables and joint operations.

Customers and joint operation partners are subject to a risk assessment using publicly available information and credit reference agencies, with follow-up due diligence and monitoring if required.

Investment credit risk for investments with banks and other financial institutions is managed by the Group Treasury function in accordance with the Board-approved policies of Cairn Energy PLC. These policies limit counterparty exposure, maturity, collateral and take account of published ratings, market measures and other market information. The limits are set to minimise the concentration of risks and therefore mitigate the risk of financial loss through counterparty failure.

Where investments are made in repos, collateral is fixed income debt securities with a minimum rating of BBB- which is managed by Euroclear. No adjustment is made to the counterparty credit rating to reflect the collateral held when assessing investment options.

It is Cairn's policy to invest with banks or other financial institutions that firstly offer the greatest degree of security in the view of the Group and, secondly the most competitive interest rates. Repayment of principal is the overriding priority and this is achieved by diversification and shorter maturities to provide flexibility. The Board continually re-assesses the Group's policy and updates as required.

At the year end the Group does not have any significant concentrations of bad debt risk. As at 31 December 2017 the Group had investments with 9 counterparties (2016: 13) to ensure no concentration of counterparty investment risk. The reduction in the number of counterparties holding investments reflects the Group's reduced cash balance. The maturity of these investments ranged from instant access to one month.

The maximum credit risk exposure relating to financial assets is represented by the carrying value as at the balance sheet date.

**Foreign currency risk**

Cairn manages exposures that arise from non-functional currency receipts and payments by matching receipts and payments in the same currency and actively managing the residual net position.

The Group also aims where possible to hold surplus cash, debt and working capital balances in the functional currency of the subsidiary, thereby matching the reporting currency and functional currency of most companies in the Group. This minimises the impact of foreign exchange movements on the Group's balance sheet.

Where residual net exposures do exist and they are considered significant, the Company and Group may from time to time opt to use derivative financial instruments to minimise exposure to fluctuations in foreign exchange and interest rates.

The following table demonstrates the sensitivity to movements in the US$:GBP and US$:NOK exchange rates, with all other variables held constant, on the Group's monetary assets and liabilities. These are considered to be reasonably possible changes for the purpose of sensitivity analysis. The Group's exposure to foreign currency changes for all other currencies is not material.

| | 2017 | | 2016 | |
|---|---|---|---|---|
| | Effect on loss before tax US$m | Effect on equity US$m | Effect on loss before tax US$m | Effect on equity US$m |
| 10% increase in sterling to US$ | (45.2) | 105.4 | (1.3) | 71.8 |
| 10% decrease in sterling to US$ | (5.0) | (105.4) | (27.0) | (71.8) |
| 10% increase in Norwegian Kroner to US$ | – | 15.3 | 0.9 | 16.1 |
| 10% decrease in Norwegian Kroner to US$ | – | (15.3) | (0.9) | (16.1) |

## Section 4 – Results for the Year

This section includes the results and performance of the Group, including details of revenue generated during the year through oil sales and royalty income and related cost of sales including operating lease commitments on the Catcher FPSO.

This section also includes details of employee benefits paid in the year and finance income and costs.

#### 4.1 Segmental Analysis

**Operating segments**
Cairn's strategy is to create, add and realise value from a balanced portfolio within a self-funding business model.

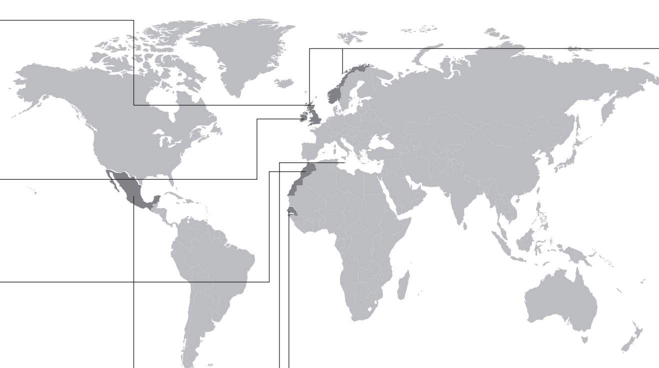
Each business unit is headed by a regional director (a regional director may be responsible for more than one business unit) and the Board monitors the results of each segment separately for the purposes of making decisions about resource allocation and performance assessment.

The Senegal business unit's focus is to have a government-approved exploitation plan by the end of 2018, with first oil expected between 2021 and 2023. The UK & Norway business unit includes exploration activities in the North Sea, Norwegian Sea and Barents Sea and management of the Group's producing assets in the UK North Sea. The International business unit consists of all other regions where Cairn currently holds (or held during the year) exploration licences, including Mexico, Ireland, Western Sahara and the Mediterranean.

The Other Cairn Energy Group segment exists to accumulate the activities and results of the holding company and other unallocated expenditure and net assets/liabilities including amounts of a corporate nature not specifically attributable to any of the business units.

Non-current assets as analysed on a segmental basis consist of intangible exploration/appraisal assets; property, plant & equipment – development/producing assets; intangible assets – goodwill; and other property, plant & equipment and intangible assets.

**Geographical information: non-current assets**



**OTHER UK**

| | 2017 | 2016 |
|---|---|---|
| Other UK | **US$8.2m** | US$1.2m |

**INTERNATIONAL**

| | 2017 | 2016 |
|---|---|---|
| Republic of Ireland | **US$9.7m** | US$5.6m |
| Western Sahara | **nil** | US$0.9m |
| Malta | **nil** | US$5.8m |
| Mexico | **US$13.1m** | nil |

**UK & NORWAY**

| | 2017 | 2016 |
|---|---|---|
| UK | **US$1,236.3m** | US$760.5m |
| Norway | **US$134.9m** | US$104.0m |
| Goodwill (allocated to segment) | **US$128.2m** | US$118.9m |

**SENEGAL**

| | 2017 | 2016 |
|---|---|---|
| Senegal | **US$434.5m** | US$330.3m |

# Section 4 – Results for the Year continued

### 4.1 Segmental Analysis continued

**Geographical information: non-current assets** continued

The segment results for the year ended 31 December 2017 are as follows:

| | Senegal US$m | UK & Norway US$m | International US$m | Other Cairn Energy Group US$m | Total US$m |
|---|---|---|---|---|---|
| **Revenue** | – | 22.9 | 10.4 | – | 33.3 |
| Cost of sales | – | (5.9) | – | – | (5.9) |
| Depletion and amortisation | – | (20.8) | – | – | (20.8) |
| **Gross (loss)/profit** | – | (3.8) | 10.4 | – | 6.6 |
| Pre-award costs | – | (30.2) | (8.5) | (5.1) | (43.8) |
| Unsuccessful exploration costs | – | (8.1) | (52.6) | – | (60.7) |
| Depreciation | – | (0.6) | – | (0.5) | (1.1) |
| Amortisation | – | – | – | (1.5) | (1.5) |
| Other income and administrative expenses | – | (2.2) | 0.3 | (25.8) | (27.7) |
| Reversal of impairment of oil and gas assets | – | 23.0 | – | – | 23.0 |
| **Operating loss** | – | (21.9) | (50.4) | (32.9) | (105.2) |
| Net gain on derecognition of financial assets | – | – | – | 402.6 | 402.6 |
| Interest income | 0.1 | 0.6 | – | 3.2 | 3.9 |
| Other finance income and costs | (0.7) | (2.2) | – | 62.7 | 59.8 |
| Exceptional provision against finance income receivable | – | – | – | (104.7) | (104.7) |
| **(Loss)/profit before taxation** | (0.6) | (23.5) | (50.4) | 330.9 | 256.4 |
| Tax credit | – | 34.4 | – | (27.7) | 6.7 |
| **(Loss)/profit for the year** | (0.6) | 10.9 | (50.4) | 303.2 | 263.1 |
| **Capital expenditure** | 104.2 | 416.8 | 63.1 | 8.6 | 592.7 |
| **Total assets** | 463.3 | 1,674.2 | 40.3 | 1,077.7 | 3,255.5 |
| **Total liabilities** | 34.6 | 592.4 | 26.5 | 107.5 | 761.0 |
| **Non-current assets** | 434.5 | 1,499.4 | 22.8 | 8.2 | 1,964.9 |

All transactions between the segments are carried out on an arm's length basis, other than where inter-group loans are made interest-free or at interest rates below market value.

The segment results for the year ended 31 December 2016 were as follows:

| | Senegal US$m | UK & Norway US$m | International US$m | Other Cairn Energy Group US$m | Total US$m |
|---|---|---|---|---|---|
| Pre-award costs | – | (8.5) | (2.8) | (6.4) | (17.7) |
| Unsuccessful exploration costs | – | (28.2) | (42.1) | – | (70.3) |
| Depreciation | – | (0.3) | – | (0.4) | (0.7) |
| Amortisation | – | – | – | (2.0) | (2.0) |
| Inventory write-down | – | – | – | (0.7) | (0.7) |
| Administrative expenses | – | (2.9) | (0.8) | (27.8) | (31.5) |
| Impairment of oil and gas assets | – | (11.0) | (14.3) | – | (25.3) |
| Operating loss | – | (50.9) | (60.0) | (37.3) | (148.2) |
| Interest income | – | 0.5 | – | 3.5 | 4.0 |
| Other finance income and costs | – | (2.0) | (0.1) | (5.2) | (7.3) |
| Loss before taxation | – | (52.4) | (60.1) | (39.0) | (151.5) |
| Tax credit | – | 56.5 | – | – | 56.5 |
| Profit/(loss) for the year | – | 4.1 | (60.1) | (39.0) | (95.0) |
| Capital expenditure | 102.1 | 318.0 | 7.5 | 0.8 | 428.4 |
| Total assets | 341.8 | 1,080.0 | 31.6 | 1,004.6 | 2,458.0 |
| Total liabilities | 16.7 | 217.6 | 17.6 | 16.2 | 268.1 |
| Non-current assets | 330.3 | 983.4 | 12.3 | 1.2 | 1,327.2 |

### 4.2 Revenue and Cost of Sales

**Accounting policies**

**Revenue**

Revenue is recognised to the extent that it is probable that economic benefits will flow to the Group and revenue can be reliably measured.

Revenue from oil sales represents the Group's share of sales, on a liftings basis, from its producing interests in the UK North Sea, at the point in time where the significant risks and rewards of ownership have been passed to the buyer. Revenue is measured using the Brent (or estimated Brent) price plus or minus the applicable discount based on the quality of the oil.

Revenue from royalties is calculated on production from fields in Mongolia based on the calculation agreed following international arbitration.

**Commodity price hedging**

Cairn may hedge oil production for the Group's assets in line with hedging policies approved by the Cairn Energy PLC Board. Where a hedging instrument has been formally designated as a hedge for hedge accounting, changes in the intrinsic value of the hedged item are recognised within other comprehensive income (where the hedge is effective) and are reclassified to the income statement when the hedged production itself affects profit or loss. Hedge effectiveness is assessed on both a prospective and retrospective basis. Any hedge ineffectiveness identified is immediately charged to the income statement.

Changes in the fair value of the time value of an option not designated within the hedged item shall be recognised in the income statement.

**Cost of Sales**

Production costs include Cairn's share of costs of the joint operation in extracting oil. Also included are marketing and transportation costs, measured on a cost per barrel basis and loss-of-production insurance costs payable over the period.

Adjustments for overlift (where liftings taken by Cairn exceed the Group's working interest share), underlift (where liftings taken by Cairn are less than the Group's working interest share) and movements in inventory are included in cost of sales. Oil inventory is measured at market value in accordance with established industry practice.

Variable lease charges represent lease payments made on finance leases over and above the minimum lease commitment. Operating lease costs are charged directly to the income statement.

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Oil sales | 19.9 | – |
| Release of deferred revenue (see note 3.7) | 3.0 | – |
| Revenue from oil sales | 22.9 | – |
| Royalty income | 10.4 | – |
| **Revenue** | **33.3** | – |
| Production and other costs | (15.3) | – |
| Oil inventory and underlift adjustment | 16.4 | – |
| Variable and operating lease charges | (7.0) | – |
| **Cost of sales** | **(5.9)** | – |
| **Depletion and amortisation (see note 2.2)** | **(20.8)** | – |
| **Gross profit** | **6.6** | – |

**Revenue**

During the period, Cairn lifted one cargo of Kraken crude, realising US$19.9m. No Catcher crude was sold during the period.

Royalty income of US$10.4m is receivable on production from two fields in Mongolia. Cairn was successful in international arbitration proceedings in proving the Group's title to royalty interest and the basis for calculating royalties due, and has recovered royalty income payable from commencement of production from the fields in 2005.

Other income received by the Group is netted against administration costs per note 4.4 and finance income received is disclosed in note 4.6.

# Section 4 – Results for the Year continued

### 4.2 Revenue and Cost of Sales continued

**Commodity price hedging**
Having moved into production on its North Sea assets, Cairn commenced a hedging programme in 2017 in order to protect debt capacity and support committed capital programmes. At 31 December 2017 the Group had hedged ~1.4m barrels of 2018 Kraken oil production, using a combination of put and call options and collar structures effectively creating 'floor' and 'ceiling' prices for the Brent benchmark for the volumes hedged. The weighted average floor and ceiling prices are US$57.3/bbl and US$68.3/bbl respectively (all prices quoted relate to dated Brent).

The put option and collar structure have been designated as hedges for hedge accounting. The call option does not qualify for hedge accounting under IAS 39 (nor would it under IFRS 9) as it is not specifically combined with a put option to form a collar. At the year end, the closing oil price was approximately US$66.5/bbl, above the floor price of both the put option and collar and below the ceiling price of both the call option and the collar. The premium payable on the put option and collar was not designated within the hedged item. Fair value movements on the cost of the option are recorded in the income statement in the period.

Sensitivity analysis has been performed on hedges in place at the year end. The sensitivity analysis considers only the impact on line items directly relating to hedge accounting and does not include the impact of a change in the oil price on other income statement line items, such as inventory valuations. A 10% fall in the oil price would have had no impact on either the income statement or other comprehensive income. A 10% increase in the oil price would result in a charge to the income statement of US$3.3m and a charge through other comprehensive income of US$4.6m. These are considered to be reasonably possible changes for the purposes of sensitivity analysis.

Subsequent to the year end the Group entered into further hedging agreements on ~650,000 barrels of 2018 Catcher production. Combined with the Kraken hedges this increases the weighted average floor price to US$58.4/bbl and the weighted average ceiling price to US$70.2/bbl.

**Cost of Sales**
Inventory of oil held at the year end is recorded at a market value of US$10.4m. Underlift adjustments on Kraken production volumes were US$6.0m at 31 December 2017. Variable finance lease costs on the Kraken FPSO of US$6.0m are charged to the income statement with US$1.0m of operating lease charges on the Catcher FPSO.

**Operating lease commitments**
At the year end, Cairn had the following operating lease commitment relating to the Catcher FPSO:

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Production costs – operating lease charges** | | |
| Not later than one year | 33.9 | – |
| After one year but no more than five years | 124.0 | 130.8 |
| After five years | 47.4 | 74.5 |
| | 205.3 | 205.3 |

### 4.3 Pre-Award Costs

| | 2017 US$m | 2016 US$m |
|---|---|---|
| UK & Norway | 30.2 | 8.5 |
| International | 8.5 | 2.8 |
| Other | 5.1 | 6.4 |
| | 43.8 | 17.7 |

UK & Norway pre-award costs of US$30.2m (2016: US$8.5m) include US$23.2m (US$3.9m) costs for purchase of seismic data, mostly in the Barents Sea. The International segment costs include US$5.0m relating to Mexico and US$3.1m (2016: US$2.8m) on other areas currently within the International segment. Further costs of US$5.1m (2016: US$6.4m) were incurred in pursuit of new opportunities in other regions which complement the Group's current licence interests and risk appetite.

During 2017, Cairn was awarded non-operated interests in five licences and operatorship in three licences in the UK & Norway and two licences in Mexico (one operated). In January 2018, Cairn was awarded a further four non-operated licences in the Norwegian licensing round.

### 4.4 Net Administrative Expenses

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Administrative expenses | 32.7 | 34.2 |
| Inventory disposal/write-down | – | 0.7 |
| Other income | (2.4) | – |
| | 30.3 | 34.9 |

Administrative expenses in 2017 include charges of US$8.1m (2016: US$7.2m) incurred defending the Group's tax position in India through the ongoing arbitration.

**Operating lease commitments**

Administration costs include operating lease charges for land and buildings representing the costs of Cairn's head office in Edinburgh and subsidiary offices globally. Operating lease commitments at the year end are shown below and are disclosed prior to recovery of cost through the Group's timewriting recharges.

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Administrative costs – land and buildings** | | |
| Not later than one year | 1.8 | 1.4 |
| After one year but no more than five years | 5.5 | 0.4 |
| After five years | 2.0 | – |
| | 9.3 | 1.8 |

### 4.5 Employee Benefits: Staff Costs, Share-Based Payments and Directors' Emoluments

#### (a) Staff costs

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Wages and salaries | 32.1 | 27.9 |
| Social security costs | 5.5 | 8.2 |
| Other pension costs | 2.1 | 2.5 |
| Share-based payments charge | 17.5 | 16.7 |
| | 57.2 | 55.3 |

Staff costs are shown gross before amounts recharged to joint operations. The share-based payments charge represents amounts in respect of equity-settled options.

The monthly average number of full-time equivalent employees, including executive directors and individuals employed by the Group working on joint operations, was:

| | Number of employees | |
|---|---|---|
| | 2017 | 2016 |
| UK | 139 | 132 |
| Norway | 26 | 22 |
| Senegal | 5 | 1 |
| Morocco | 1 | 1 |
| Group | 171 | 156 |

# Section 4 – Results for the Year continued

### 4.5 Employee Benefits: Staff Costs, Share-Based Payments and Directors' Emoluments continued

#### (b) Share-based payments

Income statement charge

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Included within gross staff costs:** | | |
| SIP | 0.7 | 0.7 |
| Share Options – Approved Plan | – | 0.1 |
| Share Options – Unapproved Plan | 0.4 | 1.0 |
| LTIP | 11.5 | 12.3 |
| Employee Share Scheme | 4.9 | 2.6 |
| | 17.5 | 16.7 |

Details of those awards with a significant impact on the results for the current and prior year are given below together with a summary of the remaining awards.

**Share-based payment schemes and awards details**

The Group operates a number of share award schemes for the benefit of its employees.

The number of share awards made by the Company during the year is given in the table below together with their weighted average fair value ("WAFV") and weighted average grant or exercise price ("WAGP/WAEP"):

| | 2017 WAFV £ | 2017 WAGP/ WAEP £ | 2017 Number of shares | 2016 WAFV £ | 2016 WAGP/ WAEP £ | 2016 Number of shares |
|---|---|---|---|---|---|---|
| SIP – free shares | 2.10 | 2.10 | 242,097 | 2.04 | 2.04 | 225,536 |
| SIP – matching shares | 1.96 | 1.96 | 206,638 | 1.94 | 1.94 | 173,762 |
| LTIP | 1.09 | 2.17 | 7,231,230 | 1.35 | 1.94 | 8,866,203 |
| Employee Share Scheme | 1.81 | 2.08 | 2,682,204 | 1.64 | 1.98 | 1,838,606 |
| | | | 10,362,169 | | | 11,104,107 |

The awards existing under the LTIP with the weighted average grant price ("WAGP") are as follows:

| | 2017 | | 2016 | |
|---|---|---|---|---|
| | Number | WAGP (£) | Number | WAGP (£) |
| Outstanding as at 1 January | 27,071,190 | 1.89 | 21,768,838 | 2.02 |
| Granted during the year | 7,231,230 | 2.17 | 8,866,203 | 1.94 |
| Exercised during the year | (4,336,496) | 1.98 | (2,730,487) | 2.80 |
| Lapsed during the year | (1,398,389) | 1.81 | (833,364) | 2.78 |
| **Outstanding at 31 December** | 28,567,535 | 1.95 | 27,071,190 | 1.89 |

| | 2017 | 2016 |
|---|---|---|
| Weighted average remaining contractual life of outstanding awards | 1.0 years | 1.2 years |

The awards existing under all share schemes other than the LTIP with the weighted average of the grant price, exercise price and notional exercise prices ("WAGP/WAEP") are as follows:

| | 2017 | | 2016 | |
|---|---|---|---|---|
| | Number | WAGP/WAEP (£) | Number | WAGP/WAEP (£) |
| Outstanding at 1 January | 12,703,723 | 1.84 | 14,916,477 | 2.03 |
| Granted during the year | 3,130,939 | 2.07 | 2,237,904 | 1.98 |
| Exercised during the year | (745,665) | 2.03 | (771,363) | 1.86 |
| Lapsed during the year | (5,538,125) | 1.69 | (3,679,295) | 2.68 |
| **Outstanding at 31 December** | 9,550,872 | 1.99 | 12,703,723 | 1.84 |

| | 2017 | 2016 |
|---|---|---|
| Weighted average remaining contractual life of outstanding awards | 7.9 years | 7.8 years |

**4.5 Employee Benefits: Staff Costs, Share-Based Payments and Directors' Emoluments** continued

**(b) Share-based payments** continued

Assumptions and inputs

The fair value of the Cairn Energy PLC LTIP scheme awards was calculated using a Monte Carlo model. The primary inputs to the model are consistent with those of the other share award schemes, though vesting percentages for LTIPs can be above 100%. For details on the vesting conditions attached to the LTIPs refer to the Directors' Remuneration Report on page 121.

The other Cairn Energy PLC share awards during 2017 were also valued using a Monte Carlo model. Awards in prior years were valued similarly. Cairn Energy PLC share options were exercised on a regular basis throughout the year, subject to the normal employee dealing bans imposed by the Company at certain times. The weighted average share price during the year was £2.01 (2016: £1.902).

The main inputs to the models include the number of options, share price, leaver rate, trigger points, discount rate and volatility.

- Leaver rate assumptions are based on past history of employees leaving the Company prior to options vesting and are revised to equal the number of options that ultimately vest.
- Trigger points are based on the length of time after the vesting periods for awards in 2017, further details are below.
- The risk-free rate is based on the yield on a zero coupon government bond with a term equal to the expected term on the option being valued.
- Volatility was determined as the annualised standard deviation of the continuously compounded rates of return on the shares of a peer group of similar companies selected from the FTSE, as disclosed in the Directors' Remuneration Report on pages 123-124, over a 10-year period to the date of award.

The following assumptions and inputs apply:

| Scheme name | Volatility | Risk-free rate per annum | Lapse due to withdrawals per annum |
|---|---|---|---|
| SIP | 0% – 29% | 0% – 1.91% | 0% – 5% |
| Approved and Unapproved Plans | 29% | 0.78% – 2.71% | 5% |
| LTIP | 29% – 37% | 0.25% – 2.33% | 0% |
| Employee Share Scheme | 0% – 37% | 0% – 1.30% | 5% |

Employee exercise trigger point assumptions

For 2017 awards, the assumption used for the Employee Share Scheme awards is that employees will exercise 35% in the year following the three-year anniversary of the award, and the same in the subsequent year, then 10% in each of the three subsequent years. The LTIP awards exercise assumption is that awards shall be exercised 50% at the end of the two-year holding period, being the five-year anniversary date, and the remaining 50% on the six-year anniversary date.

**(c) Directors' emoluments and remuneration of key management personnel**

Details of each Director's remuneration, pension entitlements, share options and awards pursuant to the LTIP are set out in the Directors' Remuneration Report on pages 101-127. Directors' remuneration, their pension entitlements and any share awards vested during the year are provided in aggregate in note 7.8.

Remuneration of key management personnel

The remuneration of the directors of the Company and of the members of the management and corporate teams who are the key management personnel of the Group is set out below in aggregate.

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Short-term employee benefits | **6.3** | 6.0 |
| Post-employment benefits | **0.4** | 0.4 |
| Share-based payments | **3.7** | 4.4 |
| | **10.4** | 10.8 |

In addition employer's national insurance contributions for key management personnel in respect of short-term employee benefits were US$0.9m (2016: US$0.8m).

Share-based payments shown above represent the cost to the Group of key management personnel's participation in the Company's share schemes, measured under IFRS 2.

During 2017, 2,526,328 shares awarded to key management personnel vested under the LTIP (2016: 905,940).

# Section 4 – Results for the Year continued

### 4.6 Finance Income

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Bank and other interest receivable | 3.9 | 4.0 |
| Other finance income | 8.1 | – |
| Dividend income | 52.4 | 8.2 |
| Exchange gain | 12.6 | – |
| Unwinding of discount – other receivables | – | 1.8 |
| | 77.0 | 14.0 |

Dividend income was receivable from Vedanta Limited. See note 3.1.

### 4.7 Exceptional Provision Against Finance Income Receivable

Dividend income relating to the Group's residual interest in Cairn India was receivable from Vedanta Limited after the merger of the two companies. However, following the seizure by the Indian Tax Department of the income held in abeyance, the unpaid dividend receivable has been fully provided against, with an exceptional provision of US$104.7m charged to the income statement. While Cairn is restricted from selling the shares in Vedanta Limited, title to the shares remains with the Company. Therefore the provision against the dividends receivable does not impact the carrying value of Cairn's investment in Vedanta Limited. See note 5.5 for further details.

### 4.8 Finance Costs

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Loan interest | 0.6 | – |
| Other finance charges | 4.8 | 5.3 |
| Loss on mark to market financial instruments | 3.2 | – |
| Unwinding of discount – provisions | 2.2 | 1.0 |
| Finance lease interest | 2.5 | – |
| Exchange loss | – | 11.0 |
| | 13.3 | 17.3 |

### 4.9 Earnings per Ordinary Share

Basic and diluted earnings per share are calculated using the following measures of profit/(loss):

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Profit/(loss) and diluted profit/(loss) attributable to equity holders of the parent** | 263.1 | (95.0) |

The following reflects the share data used in the basic and diluted earnings per share computations:

| | 2017 '000 | 2016 '000 |
|---|---|---|
| Weighted average number of shares | 582,134 | 576,733 |
| Less weighted average shares held by ESOP and SIP Trusts | (4,933) | (3,111) |
| **Basic weighted average number of shares** | 577,201 | 573,622 |
| Potential dilutive effect of shares issuable under employee share plans: | | |
| LTIP awards | 11,027 | – |
| Approved and unapproved plans | 346 | – |
| Employee share awards | 2,442 | – |
| **Diluted weighted average number of shares** | 591,016 | 573,622 |
| Potentially issuable shares: | | |
| LTIP awards | 11,902 | 18,048 |
| Approved and unapproved plans | 3,957 | 3,980 |
| Employee share awards | 2,800 | 1,629 |
| **Number of potentially issuable shares** | 18,659 | 23,657* |

* 2016 potentially issuable shares were anti-dilutive due to the loss of the year.

# Section 5 – Taxation

This section highlights the Group's taxation policies, including both the accounting policy and wider strategy and governance policies. Analysis is provided of the Group's income statement charges and credits and deferred tax movements through the balance sheet.

This section also includes details of the contingent liability relating to the Indian Tax dispute currently subject to international arbitration proceedings.

**Significant accounting judgements in this section:**
**Deferred taxation**
At each reporting date, Cairn reviews unused tax losses and allowances to assess whether it is probable that taxable profits will be available against which the Group can utilise these losses and allowances and whether or not a deferred tax asset should be recognised.

At 31 December 2016 and 2017, Cairn concluded that no deferred tax asset should be recognised.

**Contingent liability – Indian tax**
Cairn is resolutely defending the Group's tax position in India following the assessment order and tax demand notice issued by the Indian Income Tax Department. Final arbitration hearings are scheduled for August 2018 with the award of the arbitration panel expected to follow shortly thereafter. Based on detailed legal advice, no provision is made in the financial statements for any claim made by the Indian Income Tax Department. Full details on the contingent liability are given in note 5.5.

**Key estimates and assumptions in this section:**
Future taxable profits used in determining whether it is appropriate to recognise a deferred tax asset are based on the key assumptions used in impairment testing, detailed in note 2.1. Downside sensitivities are used to determine the extent to which future taxable profits are probable.

**Accounting policy**
The total tax charge or credit represents the sum of current tax and deferred tax.

The current tax credit is based on the taxable loss for the year. Taxable profit or loss differs from net profit or loss as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. In Norway, tax refunds may be claimed on qualifying exploration activities and related overhead costs; the tax refundable is included as a tax credit in the period in which the qualifying expenditure is incurred.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit or loss.

Deferred tax assets are recognised for deductible temporary differences that exist only where it is probable that taxable profits will be generated against which the carrying value of the deferred tax asset can be recovered.

Deferred tax liabilities are recognised for all taxable temporary differences except in respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint operations where the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

A deferred tax asset or liability is not recognised if a temporary difference arises on initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss. However, where the recognition of an asset is associated with an interest in a joint operation, which applies to all Cairn's intangible exploration/appraisal asset and property, plant & equipment – development/producing asset additions, and Cairn is not able to control the timing of the reversal of the temporary difference or the temporary difference is expected to reverse in the foreseeable future, a deferred tax asset or liability shall be recognised.

Current and deferred tax is calculated using tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

# Section 5 – Taxation continued

### 5.1 Tax Strategy and Governance

The Group's tax strategy is fully aligned with its overarching business objectives and principles. In its approach to tax Cairn aims to be a good corporate citizen, managing its tax affairs in a transparent and responsible manner in all the jurisdictions in which it operates. Cairn is committed to having open and constructive relationships with all tax authorities.

For several years, the Group's UK activities have been focused on assets at exploration, appraisal and development stages with no production; in 2017 production income has been received again. Due to the level of costs incurred in developing the fields which came on-stream in 2017, there are no taxable profits this year and it is unlikely that any taxable profits will be realised for several years. Taxable profits in other jurisdictions, where Cairn's assets are at various stages of the value creation cycle, are also minimal and as a result there were no cash payments of corporation taxes made during the year (2016: nil).

Cairn undertakes tax planning that supports the business and reflects commercial and economic activity. The Group's policy is to not enter into any artificial tax avoidance schemes but to build and maintain strong collaborative working relationships with all relevant tax authorities based on transparency and integrity. The Group aims for certainty in relation to the tax treatment of all items; however, it is acknowledged that this will not always be possible, for example where transactions are complex or there is a lack of maturity in the tax regime in the relevant jurisdiction in which the Group is operating. In such circumstances Cairn will seek external advice where appropriate and ensure that the approach adopted in any relevant tax return includes full disclosure of the position taken.

### 5.2 Tax Credit on Profit/(loss) for the Year

**Analysis of tax credit on profit for the year**

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Current tax credit:** | | |
| Norwegian tax refunds receivable | (39.9) | (26.5) |
| | (39.9) | (26.5) |
| **Deferred tax charge/(credit):** | | |
| Norwegian deferred tax charges | 9.0 | 13.3 |
| Release of provision on carried interests due to change in tax rate | (0.7) | (8.4) |
| UK deferred tax credits realised | (2.8) | (34.9) |
| Deferred tax liability on recognition of financial assets | (7.1) | – |
| Recycled from other comprehensive income on derecuperation of financial assets | 34.8 | – |
| **Total deferred tax charge/(credit)** | 33.2 | (30.0) |
| **Total tax credit on profit/(loss)** | (6.7) | (56.5) |
| **Tax included in other comprehensive income:** | | |
| Deferred tax charge on valuation of financial assets | 96.5 | – |
| Deferred tax charge on valuation movement recycled to income statement | (34.8) | – |
| **Total tax charge in other comprehensive income** | 61.7 | – |

Norwegian deferred tax charges includes a charge of US$12.4m (2016: charge of US$14.2m) on temporary differences in respect of non-current assets and a credit of US$3.4m (2016: credit of US$0.9m) on losses and other temporary differences.

Expenditure incurred on Cairn's behalf by Dyas BV under the carry agreement following the disposal of a 10% working interest in Catcher in 2015 gave rise to a deferred tax liability on capitalisation within development assets. UK deferred tax credits of US$2.8m (2016: US$34.9m) were realised to offset this deferred tax liability.

Deferred tax movements through the income statement on the recognition and disposal of financial assets, and deferred tax movements through other comprehensive income on the valuation of financial assets, represent the deferred tax impact of movements in the year in respect of the shares that the Group holds in Vedanta Limited (Cairn India Limited prior to April 2017) detailed in note 3.1. The charge on the valuation of financial assets of US$96.5m is offset by the credit recorded in the income statement on derecognition of Cairn India Limited of US$7.1m, resulting in a closing deferred tax liability of US$89.4m relating to the financial assets held at 31 December 2017.

**5.2 Tax Credit on Profit/(loss) for the Year** continued

**Factors affecting tax credit for the year**

A reconciliation of income tax credit applicable to profit before income tax at the UK statutory rate to income tax credit at the Group's effective income tax rate is as follows:

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Profit/(loss) before taxation** | **256.4** | (151.5) |
| Profit/(loss) before tax multiplied by the UK statutory rate of corporation tax of 19.25% (2016: 20%) | **49.4** | (30.3) |
| **Effect of:** | | |
| Special tax rates and reliefs applying to oil and gas activities | **(50.3)** | (21.2) |
| Impact of increase in available investment allowance | **–** | (19.5) |
| Impact on current tax of adjustments in respect of prior year | **(2.5)** | – |
| Impact on deferred tax of adjustments in respect of prior year | **(1.3)** | (5.0) |
| Impact of exceptional provision against finance income | **20.1** | – |
| Temporary differences not recognised | **(17.8)** | 21.3 |
| Release of provision on carried interests due to change in tax rate | **(0.6)** | (5.5) |
| Foreign exchange movements | **0.4** | 0.1 |
| Other | **(4.1)** | 3.6 |
| **Total tax credit on profit/(loss)** | **(6.7)** | (56.5) |

The reconciliation shown above has been based on the average UK statutory rate of corporation tax for 2017 of 19.25% (2016: 20%).

The UK main rate of corporation tax is currently 19% (20% prior to 1 April 2017). The change in the UK tax rate had no impact either on the Group's UK net deferred tax position at 31 December 2017 or on the tax credit for the year.

The applicable UK statutory tax rate applying to North Sea oil and gas activities is 40% (2016: 40%).

The applicable Norwegian rate applying to oil and gas activities is 78% (2016: 78%).

The effect of special tax rates and reliefs applying to oil and gas activities of US$50.3m comprises US$38.1m (2016: US$12.7m) in respect of differences between the average UK statutory rate and the special rates applying to oil and gas activities in the UK and Norway, and US$12.2m (2016: US$8.5m) in respect of the UK ring fence expenditure supplement (RFES) claimed in the year.

The effect of temporary differences not recognised of US$17.8m (2016: US$21.3m) includes:

- a US$52.8m (2016: nil) movement in the unrecognised deferred tax asset brought forward at the start of the year in respect of the shares that the Group held in Cairn India Limited (now Vedanta Limited); and
- a US$3.4m (2016: nil) movement in respect of the use in the year of brought forward UK non-trading losses on which no deferred tax asset was recognised.

These are offset by:

- a US$28.3m (2016: US$3.2m) movement in the year in respect of the unrecognised deferred tax asset on UK ring fence trading losses and the deferred tax liability on UK Ring Fence temporary differences in respect of non-current assets; and
- a further US$10.1m (2016: US$8.5m) unsuccessful exploration costs on which future tax relief is available but the expenditure has been expensed through the income statement.

The remaining US$9.6m in respect of 2016 related primarily to losses carried for which no deferred tax asset was recognised.

The effect of the exceptional provision against finance income of US$20.1m relates to the US$104.7m provision against dividends receivable from Vedanta Limited, which is not deductible for UK tax purposes. See note 4.7.

**5.3 Income Tax Asset**

The income tax asset of US$38.4m (2016: US$26.1m) relates to cash tax refunds due from the Norwegian authorities on the tax value of exploration and other qualifying expenses incurred in Norway during the year. This refund will be received in 2018.

# Section 5 – Taxation continued

### 5.4 Deferred Tax Assets and Liabilities

**Reconciliation of movement in deferred tax assets/(liabilities):**

| | Temporary difference in respect of non-current assets US$m | Losses US$m | Other temporary differences US$m | **Total US$m** |
|---|---|---|---|---|
| **Deferred tax assets** | | | | |
| At 1 January 2016 | (153.9) | 153.9 | – | – |
| Exchange differences arising | 6.2 | (6.2) | – | – |
| Deferred tax credit through income statement | (14.5) | 57.9 | – | 43.4 |
| Deferred tax movement on additions to development assets in respect of carried interests | (43.4) | – | – | (43.4) |
| At 1 January 2017 | (205.6) | 205.6 | – | **–** |
| Exchange differences arising | (27.5) | 27.5 | – | **–** |
| Deferred tax credit through income statement | (112.4) | 115.9 | – | **3.5** |
| Deferred tax movement on additions to development assets in respect of carried interests | (3.5) | – | – | **(3.5)** |
| **At 31 December 2017** | **(349.0)** | **349.0** | **–** | **–** |
| **Deferred tax liabilities** | | | | |
| At 1 January 2016 | (59.3) | 10.5 | – | (48.8) |
| Exchange differences arising | (0.6) | 0.1 | – | (0.5) |
| Deferred tax charge through income statement | (14.4) | 1.0 | – | (13.4) |
| At 1 January 2017 | (74.3) | 11.6 | – | **(62.7)** |
| Exchange differences arising | (3.9) | 0.6 | – | **(3.3)** |
| Deferred tax charge through income statement | (40.0) | 3.1 | 0.2 | **(36.7)** |
| Deferred tax charge to comprehensive income | (61.7) | – | – | **(61.7)** |
| **At 31 December 2017** | **(179.9)** | **15.3** | **0.2** | **(164.4)** |

| | **2017 US$m** | 2016 US$m |
|---|---|---|
| **Deferred tax liabilities analysed by country** | | |
| India | **(89.4)** | – |
| Norway | **(75.0)** | (62.7) |
| **Total deferred tax liability** | **(164.4)** | (62.7) |

A deferred tax liability of US$89.4m has been recognised at the year end in respect of the shares the Group holds in Vedanta Limited, as a result of a recovery in the share price. In 2016 there was an unrecognised deferred tax asset in respect of the shares of US$2.7m.

**Recognised deferred tax assets**

As at the balance sheet date, no net deferred tax asset or liability has been recognised in the UK (2016: no net deferred tax asset or liability recognised) as other temporary differences and tax losses are only recognised to the extent that they offset the UK deferred tax liability arising on business combinations and carried interests attributable to UK Ring-Fence trading activity, as it is not considered probable that future profits will be available to recover the value of the asset given the detrimental change in market conditions continuing to impact the oil and gas industry.

A deferred tax asset has been recognised in respect of Norwegian tax losses of US$15.3m (2016: US$11.6m) against a Norwegian deferred tax liability arising from business combinations and expenditure on assets for which current tax refunds have been claimed.

**Unrecognised deferred tax assets**

No deferred tax asset has been recognised on the following as it is not considered probable that it will be utilised in future periods:

| | **2017 US$m** | 2016 US$m |
|---|---|---|
| UK fixed asset temporary differences | **386.5** | 349.3 |
| UK Ring Fence trading losses | **138.0** | 169.3 |
| UK non-Ring-Fence trading losses | **3.7** | 3.4 |
| UK non-Ring-Fence pre-trade losses | **3.3** | 6.4 |
| UK excess management expenses | **66.3** | 305.1 |
| UK non-trade deficits | **297.7** | 68.8 |
| UK temporary differences on share-based payments | **33.9** | 37.7 |
| UK other temporary differences | **0.1** | 0.1 |
| Senegal fixed asset temporary differences | **3.2** | – |
| Greenlandic tax losses | **1,143.1** | 1,003.9 |
| Temporary differences in respect of available-for-sale financial assets | **–** | 2.7 |

At the balance sheet date the Group has US$1,010.5m (2016: US$683.3m) UK Ring Fence trading losses available to offset against future UK Ring Fence trading profits. A deferred tax asset has been recognised in respect of US$872.5m (2016: US$514.0m) of these losses, offsetting in full a deferred tax liability on Ring Fence fixed assets temporary differences. No deferred tax asset has been recognised on the remaining UK Ring Fence losses of US$138.0m (2016: US$169.3m) or on other ring fence temporary differences of US$116.9m (2016: nil) relating to decommissioning liabilities as it is not considered probable that this amount will be utilised in future periods.

The deferred tax liability recognised on UK Ring Fence fixed asset temporary differences of US$349.0m (2016: US$205.6m) includes temporary differences in respect of investment allowances (previously field allowances) of US$759.5m (2016: US$693.5m) on the Catcher and Kraken developments which will reduce future Ring Fence profits subject to supplementary charge.

**5.5 Contingent Liability – Indian Tax Assessment**

In January 2014 Cairn UK Holdings Limited ("CUHL"), a direct subsidiary of Cairn Energy PLC, received notification from the Indian Income Tax Department (the "IITD") that it was restricted from selling its approximately 10% shareholding in Cairn India Limited ("CIL"), which at that time had a market valuation of INR 60bn (US$1.0bn). In that notification, the IITD claimed to have identified unassessed taxable income resulting from certain intra-Group share transfers undertaken in 2006 (the "2006 Transactions"), such transactions having been undertaken in order to facilitate the IPO of CIL in 2007. The notification made reference to retrospective Indian tax legislation enacted in 2012, which the IITD was seeking to apply to the 2006 Transactions.

Following the merger in April 2017 of CIL and Vedanta Limited, CUHL's shareholding in CIL has been replaced by approximately a 5% shareholding in Vedanta Limited issued together with preference shares, which are both currently subject to IITD attachment on the same basis as CUHL's previous shares in CIL. At 31 December 2017, the market value of CUHL's equity and preference shares in Vedanta Limited was together INR 68.4bn (approximately US$1.1bn).

In addition to attaching CUHL's shares in Vedanta Limited, the IITD has seized dividends due to CUHL from those shares totalling INR 6.7bn (US$105m). The IITD has also notified Cairn that a tax refund of INR 15.9bn (US$249m) due to CUHL as a result of overpayment of capital gains tax on a separate matter in 2011, has been applied as partial payment of the tax assessment of the 2006 Transactions. This tax refund was previously classified as a contingent asset where the inflow of economic benefits was considered less than probable.

The IITD holds CUHL as an assessee in default in respect of tax demanded on the 2006 transactions, and as such has continued to pursue enforcement against CUHL's assets in India. To date these enforcement actions have included attachment of CUHL's shareholding in Vedanta Limited (valued at US$1.1bn at year end) for potential sale, seizure of the US$104m dividends due to CUHL as described above, and offset of a US$249m tax refund due to CUHL in respect of another matter.

The assessment by the IITD of principal tax due on the 2006 Transactions is INR 102bn (US$1.6bn), plus applicable interest and penalties. Interest is currently being charged on the principal at a rate of 12% per annum from February 2016, although this is subject to the IITD's Indian court appeal that interest should be back-dated to 2007. Penalties are currently assessed as 100% of the principal tax due, although this is subject to appeal by CUHL that penalties should not be charged given the retrospective nature of the tax levied.

The Group has legal advice confirming that the maximum amount that could ultimately be recovered from Cairn by the IITD is limited to the value of CUHL's assets, principally the ordinary and preference shares in Vedanta Limited plus the seized dividends and tax refund from 2011.

In March 2015 Cairn filed a Notice of Dispute under the UK-India Bilateral Investment Treaty (the "Treaty") in order to protect its legal position and seek restitution of the value effectively seized by the IITD in and since January 2014. Cairn's principal claims are that the assurance of fair and equitable treatment and protections against expropriation afforded by the Treaty have been breached by the actions of the IITD, which is seeking to apply retrospective taxes to historical transactions already closely scrutinised and approved by the Government of India. The IITD has attached and seized assets to try to enforce such taxation. Cairn's plea is therefore that the effects of the tax assessment should be nullified and Cairn should receive recompense from India for the loss of value resulting from the 2014 attachment of CUHL's shares in CIL and the withholding of the tax refund, which together total approximately US$1.2bn.

The Treaty proceedings formally commenced in January 2016 following agreement between Cairn and the Republic of India on the appointment of a panel of three international arbitrators under the terms of the Treaty. Cairn's statement of claim was submitted to the arbitral tribunal in June 2016 and the Republic of India submitted its statement of defence in February 2017. A period of further submissions and document production has been ongoing. In September 2017 the arbitral tribunal confirmed the schedule for the remainder of the arbitration, with final hearings being in August 2018 and the tribunal's ruling issued expeditiously thereafter. Based on detailed legal advice, Cairn is confident that it will be successful in this arbitration, and accordingly, no provision has been made for any of the tax or penalties assessed by the IITD.

# Section 6 – Capital Structure and Other Disclosures

This section includes details of Cairn's issued share capital and equity reserves.

Other disclosures include details on auditors' remuneration. Details on the Group's policy on the award of non-audit work to the auditors can be found in the Report of the Audit Committee.

**Significant accounting judgements in this section:**
There are no significant accounting judgements in this section.

**Key estimates and assumptions in this section:**
There are no key estimates or assumptions in this section.

### 6.1 Issued Capital and Reserves

**Called-up share capital**

| | Number 231/169p ordinary '000 | 231/169p ordinary US$m |
|---|---|---|
| **Allotted, issued and fully paid ordinary shares** | | |
| At 1 January 2016 | 576,344 | 12.4 |
| Issued and allotted for employee share options | 392 | – |
| Issued and allotted to ESOP trust | 500 | – |
| At 1 January 2017 | **577,236** | **12.4** |
| Issued and allotted to ESOP trust | **6,000** | **0.1** |
| **At 31 December 2017** | **583,236** | **12.5** |

**Share premium**

| | 2017 US$m | 2016 US$m |
|---|---|---|
| At 1 January | **488.0** | 487.1 |
| Arising on shares issued for employee share options | **–** | 0.9 |
| **At 31 December** | **488.0** | 488.0 |

**Shares held by ESOP Trust**
Shares held by the ESOP Trust represent the cost of shares held by the Cairn Energy PLC Employees' Share Trust at 31 December 2017 of US$1.9m (2016: US$1.9m). The number of shares held by the Cairn Energy PLC Employees' Share Trust at 31 December 2017 was 2,704,555 (2016: 670,914) and the market value of these shares was £5.8m/US$7.8m (2016: £1.6m/US$2.0m).

**Shares held by SIP Trust**
Shares held by the SIP Trust represent the cost of shares held by the Cairn Energy PLC Employees' Share Incentive Plan Trust at 31 December 2017 of US$8.3m (2016: US$8.3m). The number of shares held by the Cairn Energy PLC Share Incentive Plan Trust at 31 December 2017 was 1,923,089 (2016: 1,599,559) and the market value of these shares was £4.1m/US$5.6m (2016: £3.8m/US$4.7m).

**Foreign currency translation**
Unrealised foreign exchange gains and losses arising on consolidation of subsidiary undertakings are taken directly to reserves. Foreign exchange differences arising on intra-group loans are not eliminated on consolidation; this reflects the exposure to currency fluctuations where the subsidiaries involved have differing functional currencies. These intra-group loans are not considered to be an investment in a foreign operation.

**Merger and capital reserves**
The merger reserve of US$255.9m arose in 2012 on shares issued by Cairn on the acquisition of Capricorn Norge AS. Capital reserves non-distributable of US$40.8m, of which US$0.7m relates to Cairn Energy PLC, the Company, include non-distributable amounts arising on various Group acquisitions and the capital redemption reserve arising from the 2013/2014 share buy-back programme.

**Available-for-sale reserve**
The available-for-sale reserve represents fair value movements on the available-for-sale financial assets (see note 3.1).

### 6.2 Capital Management

The objective of the Group's capital management structure is to ensure that there remains sufficient liquidity within the Group to carry out committed work programme requirements. The Group monitors the long-term cash flow requirements of the business in order to assess the requirement for changes to the capital structure to meet that objective and to maintain flexibility. The Group is subject to quarterly forecast liquidity tests as part of the reserve-based lending facility. The Group has complied with the capital requirements of this test at all times during the year.

### 6.2 Capital Management continued

Cairn manages the capital structure and makes adjustments to it in light of changes to economic conditions. To maintain or adjust the capital structure, Cairn may buy back shares, make a special dividend payment to shareholders, return capital, issue new shares for cash, repay debt, put in place new debt facilities (see note 3.3) or undertake other such restructuring activities as appropriate. No significant changes were made in the objectives, policies or processes during the year ended 31 December 2017.

Capital and net debt, including finance lease liabilities, was as follows:

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Continuing operations** | | |
| Loans and borrowings | 29.8 | – |
| Finance lease liabilities | 169.7 | – |
| Less cash and cash equivalents | (86.5) | (334.9) |
| Net debt/(funds) | 113.0 | (334.9) |
| Equity | 2,494.5 | 2,189.9 |
| Capital and net funds less payables | 2,607.5 | 1,855.0 |
| Gearing ratio | 4% | 0% |

### 6.3 Guarantees

It is normal practice for the Group to issue guarantees in respect of obligations during the normal course of business.

Details of the Group's reserve-based lending facility can be found in note 3.3. On entering into the facility certain subsidiaries granted cross-guarantees to each of the lenders.

The Group also provided the following guarantees at 31 December 2017:

- Various guarantees under the borrowing facility for the Group's operational commitments for the current year of US$48.5m (2016: US$1.3m); and
- Parent company guarantees for the Group's obligations under joint operating agreements and other contracts.

As at 31 December 2016, the Group provided a guarantee under the borrowing facility for the Group's Associate Membership of Oil Spill Response Limited (OSRL) for US$100.0m. No such guarantee is in place as at 31 December 2017.

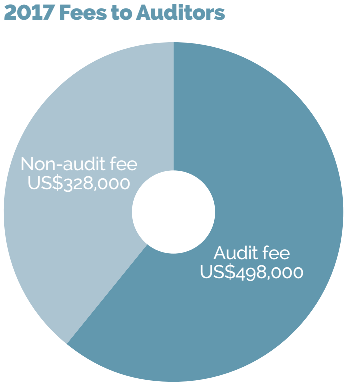
### 6.4 Auditors' Remuneration

| | 2017 US$'000 | 2016 US$'000 |
|---|---|---|
| Fees payable to the Group's auditors and their associate firms for: | | |
| Audit fees: | | |
| Auditing of the financial statements of the Group and the Company | 290 | 275 |
| Auditing of the financial statements of subsidiaries | 208 | 212 |
| | 498 | 487 |
| Non-audit fees: | | |
| Audit-related assurance services | 120 | 104 |
| Other assurance services relating to corporate finance transactions | 103 | 81 |
| Non-audit services not included above | 105 | 36 |
| | 328 | 221 |
| **Total fees** | 826 | 708 |

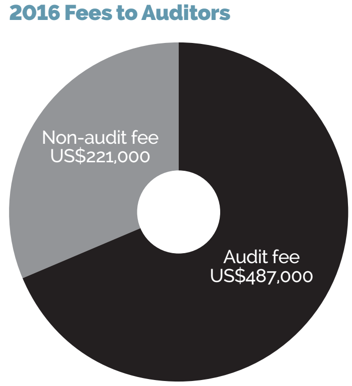
The Group has a policy in place for the award of non-audit work to the auditors which requires audit committee approval (see the Audit Committee Report on pages 94-98).

The split of audit fees to non-audit fees payable to the auditors is as follows:

**2017 Fees to Auditors**




**2016 Fees to Auditors**



# Company Balance Sheet
## As at 31 December 2017

| | Note | 2017 US$m | 2016 US$m |
|---|---|---|---|
| **Non-current assets** | | | |
| Investments in subsidiaries | 7.6 | **2,812.0** | 2,800.4 |
| **Current assets** | | | |
| Other receivables | 7.3 | **19.9** | 16.1 |
| Cash and cash equivalents | 7.2 | **0.6** | – |
| | | **20.5** | 16.1 |
| **Total assets** | | **2,832.5** | 2,816.5 |
| **Current liabilities** | | | |
| Trade and other payables | 7.4 | **69.1** | 61.4 |
| Bank overdraft | 7.2 | **–** | 0.4 |
| **Total liabilities** | | **69.1** | 61.8 |
| **Net assets** | | **2,763.4** | 2,754.7 |
| **Equity** | | | |
| Called-up share capital | 6.1 | **12.5** | 12.4 |
| Share premium | 6.1 | **488.0** | 488.0 |
| Shares held by ESOP/SIP Trusts | 6.1 | **(10.2)** | (10.2) |
| Capital reserves – non-distributable | 6.1 | **0.7** | 0.7 |
| Merger reserve | 6.1 | **255.9** | 255.9 |
| Retained earnings: | | | |
| At 1 January | | **2,007.9** | 2,045.7 |
| Loss for the year | | **(4.9)** | (41.7) |
| Other movements in retained earnings | | **13.5** | 3.9 |
| | | **2,016.5** | 2,007.9 |
| **Total equity** | | **2,763.4** | 2,754.7 |

The financial statements on pages 178-185 were approved by the Board of Directors on 12 March 2018 and signed on its behalf by:

**James Smith**
Chief Financial Officer

**Simon Thomson**
Chief Executive

# Company Statement of Cash Flows
## For the year ended 31 December 2017

| | Note | 2017 US$m | 2016 US$m |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Loss before taxation | | **(4.9)** | (41.7) |
| | | | |
| Share-based payments charge | | **5.9** | 2.6 |
| Impairment of investment in subsidiary | | **–** | 26.0 |
| Finance income | | **(11.2)** | – |
| Finance costs | | **7.7** | 5.3 |
| Other receivables movement | | **(2.3)** | 0.9 |
| Trade and other payables movement | | **6.4** | 9.9 |
| **Net cash generated from operating activities** | | **1.6** | 3.0 |
| | | | |
| **Cash flows from investing activities** | | | |
| Interest received | | **8.0** | – |
| Net cash flows from investing activities | | **8.0** | – |
| | | | |
| **Cash flows from financing activities** | | | |
| Facility fees, arrangement fees and bank charges | | **(4.7)** | (5.0) |
| Cost of shares purchased | | **(3.9)** | – |
| Proceeds from exercise of share options | | **–** | 0.9 |
| **Net cash flows used in financing activities** | | **(8.6)** | (4.1) |
| | | | |
| Net increase/(decrease) in cash and cash equivalents | | **1.0** | (1.1) |
| Opening cash and cash equivalents at beginning of year | | **(0.4)** | 0.7 |
| **Closing cash and cash equivalents** | 7.2 | **0.6** | (0.4) |

# Company Statement of Changes in Equity
## For the year ended 31 December 2017

| | Equity share capital and share premium US$m | Shares held by ESOP/SIP Trust US$m | Merger and capital reserves US$m | Retained earnings US$m | **Total equity US$m** |
|---|---|---|---|---|---|
| At 1 January 2016 | 499.5 | (23.0) | 256.6 | 2,045.7 | 2,778.8 |
| Loss for the year | – | – | – | (41.7) | (41.7) |
| Total comprehensive expense for the year | – | – | – | (41.7) | (41.7) |
| Share-based payments | – | – | – | 16.7 | 16.7 |
| Exercise of employee share options | 0.9 | – | – | – | 0.9 |
| Cost of shares vesting | – | 12.8 | – | (12.8) | – |
| At 31 December 2016 | 500.4 | (10.2) | 256.6 | 2,007.9 | 2,754.7 |
| Loss for the year | **–** | **–** | **–** | **(4.9)** | **(4.9)** |
| Total comprehensive expense for the year | **–** | **–** | **–** | **(4.9)** | **(4.9)** |
| Share-based payments | **–** | **–** | **–** | **17.5** | **17.5** |
| Shares issued for cash | **0.1** | **(0.1)** | **–** | **–** | **–** |
| Cost of shares purchased | **–** | **(3.9)** | **–** | **–** | **(3.9)** |
| Cost of shares vesting | **–** | **4.0** | **–** | **(4.0)** | **–** |
| **At 31 December 2017** | **500.5** | **(10.2)** | **256.6** | **2,016.5** | **2,763.4** |

# Section 7 – Notes to the Company Financial Statements

This section contains the notes to the Company financial statements.

The issued capital and reserves of the Company are largely consistent with Cairn Energy PLC Group financial statements. Refer to note 6.1 of the Group financial statements.

**Key estimates and assumptions in this section:**
**Impairment testing of investments in subsidiaries**
The Company's investments in Capricorn Oil Limited has been tested for impairment by comparison against the underlying value of the subsidiaries' exploration/appraisal and development/producing assets, held within the Capricorn Oil sub-group, based on fair value less costs of disposal. The fair values are calculated using the same assumptions as noted in section 2.

### 7.1 Basis of Preparation

The financial statements have been prepared in accordance with IFRS as adopted by the European Union.

The Company applies consistent accounting policies as applied by the Group. To the extent that an accounting policy is relevant to both Group and Company financial statements, refer to the Group financial statements for disclosure of the accounting policy. Material policies that apply to the Company only are included as appropriate.

Cairn has used the exemption granted under s408 of the Companies Act 2006 that allows for the non-disclosure of the income statement of the parent company.

The net assets in the Company Balance Sheet remain in excess of the Group's total net assets as a result of historic impairment tests. The Group Balance Sheet reflects past impairments charged against UK & Norway exploration assets included in past business combinations. The Company's direct investment in subsidiaries have not suffered the same impairment as the fall in value of the UK & Norway assets is offset by the increase in the value of Senegal assets.

### 7.2 Cash and Cash Equivalents

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Cash at bank | 0.6 | – |
| Bank overdraft | – | (0.4) |
| | 0.6 | (0.4) |

### 7.3 Other Receivables

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Prepayments | 15.3 | 14.9 |
| Amounts receivable from subsidiary undertakings | 1.1 | – |
| Other receivables | 3.5 | 1.2 |
| | 19.9 | 16.1 |

Prepayments relate to facility fees incurred during 2014 which will be amortised over the expected useful life of the facility commencing from the date the facility is drawn down.

As at 31 December 2017 and 31 December 2016, no amount of the Company's other receivables was past due or impaired.

### 7.4 Trade and Other Payables

| | 2017 US$m | 2016 US$m |
|---|---|---|
| Trade and other payables | 1.6 | 0.2 |
| Amounts payable to subsidiary undertakings | 64.3 | 59.6 |
| Accruals | 3.2 | 1.6 |
| | 69.1 | 61.4 |

# Section 7 – Notes to the Company Financial Statements continued

### 7.5 Financial Instruments

Set out below is the comparison by category of carrying amounts and fair values of all the Company's financial instruments that are carried in the financial statements.

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Financial assets: Carrying amount and fair value** | | |
| *Loans and receivables* | | |
| Cash and cash equivalents | 0.6 | – |
| Amounts receivable from subsidiary undertakings | 1.1 | – |
| Other receivables | 3.5 | 1.2 |
| | 5.2 | 1.2 |

All of the above financial assets are current and unimpaired.

| | 2017 US$m | 2016 US$m |
|---|---|---|
| **Financial liabilities: Carrying amount and fair value** | | |
| *Amortised cost* | | |
| Trade and other payables | 1.6 | 0.1 |
| Accruals | 3.2 | 1.6 |
| Bank overdraft | – | 0.4 |
| Amounts payable to subsidiary undertakings | 64.3 | 59.6 |
| | 69.1 | 61.7 |

The fair value of financial assets and liabilities has been calculated by discounting the expected future cash flows at prevailing interest rates.

**Maturity analysis**
All of the Company's financial liabilities have a maturity of less than one year (2016: less than one year).

**Financial risk management: risk and objectives**
The Company's financial risk management policies and objectives are consistent with those of the Group detailed in note 3.9.

The Company is not exposed to material foreign currency exchange rate risk.

### 7.6 Investments in Subsidiaries

**Accounting policy**
The Company's investments in subsidiaries are carried at cost less provisions resulting from impairment. In testing for impairment the carrying value of the investment is compared to its recoverable amount, being its fair value less costs of disposal. The fair value is based on the discounted future net cash flows of oil and gas assets held by the subsidiary, using estimated cash flow projections over the licence period. For exploration assets, estimated discounted cash flows are risk-weighted for future exploration success.

Discounted future net cash flows are calculated using an estimated short-term oil price based on the forward curve and long-term oil price of US$70 per boe (2016: long-term oil price of US$70 per boe), escalation for prices and costs of 2.0% (2016: 2.0%), and a discount rate of 10% (2016: 10%). Full details on the assumptions used for valuing oil and gas assets can be found in section 2.

| | Subsidiary undertakings US$m | Total US$m |
|---|---|---|
| **Cost** | | |
| At 1 January 2016 | 3,653.9 | 3,653.9 |
| Additions | 10.9 | 10.9 |
| At 31 December 2016 | 3,664.8 | **3,664.8** |
| Additions | 11.6 | **11.6** |
| **At 31 December 2017** | **3,676.4** | **3,676,4** |
| **Impairment** | | |
| At 1 January 2016 | 838.4 | **838.4** |
| Impairment charge | 26.0 | **26.0** |
| **At 31 December 2016 and 2017** | **864.4** | **864.4** |
| **Net book value** | | |
| At 31 December 2015 | 2,815.5 | 2,815.5 |
| At 31 December 2016 | 2,800.4 | 2,800.4 |
| **At 31 December 2017** | **2,812.0** | **2,812.0** |

Additions during the year of US$11.6m (2016: US$10.9m) relate to the Company's investment in Capricorn Oil Limited. These represent the award of share options of the Company to the employees of Capricorn Energy Limited (a principal subsidiary of Capricorn Oil Limited).

At the year end, investments in subsidiaries were reviewed for indicators of impairment and impairment tests conducted where indicators found. Given that the market capitalisation of Cairn is less than its net book value, impairment tests were conducted on all investments in subsidiaries held by the Company.

# Section 7 – Notes to the Company Financial Statements continued

### 7.6 Investments in Subsidiaries continued

The Company's subsidiaries as at the balance sheet date are set out below. The Company holds 100% of the voting rights and beneficial interests in the ordinary shares of the following companies:

**Direct holdings**

| | Business | Country of incorporation | Country of operation | Registered office address |
|---|---|---|---|---|
| Capricorn Oil Limited | Holding company | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Cairn UK Holdings Limited | Holding company | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |

**Indirect holdings – Capricorn Oil Limited Group**

| | Business | Country of incorporation | Country of operation | Registered office address |
|---|---|---|---|---|
| Agora Oil and Gas (UK) Limited | Exploration | Scotland | UK | 50 Lothian Road, Edinburgh, EH3 9BY |
| Alba Resources Limited | Exploration | Scotland | UK | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Americas Limited | Holding company | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Americas Mexico S. de R.L. de C.V. | Exploration | Mexico | Mexico | Av. Prolongación Paseo de la Reforma No.39 -8, Col. Paseo de las Lomas México, CDMX, C.P. 01330 |
| Capricorn Brasil Petroleo E Gas LTDA | Exploration | Brazil | Brazil | Praia de Botafogo 228, 16th floor, suite 1601 Zip Code 22250-040 Rio de Janeiro |
| Capricorn Energy Limited | Holding company | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Energy Mexico S. de R.L. de C.V. | Exploration | Mexico | Mexico | Av. Prolongación Paseo de la Reforma No.39 -8, Col. Paseo de las Lomas México, CDMX, C.P. 01330 |
| Capricorn Energy Search Limited | Exploration | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Exploration and Development Company Limited | Exploration | Scotland | Morocco | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Exploration Limited | Non-trading | Scotland | Non-trading | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Greenland Exploration 1 Limited+ | Holding company | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Greenland Exploration A/S | Exploration | Greenland | Greenland | Qullilerfik 2, 6, Box 1718, 3900 Nuuk, Greenland |
| Capricorn Ireland Limited | Exploration | Scotland | Republic of Ireland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Malta Limited | Exploration | Scotland | Malta | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Mauritania Limited | Exploration | Scotland | Mauritania | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Norge AS | Exploration | Norway | Norway | P.O. Box 400, Sentrum, 4002, Stavanger |
| Capricorn Oil and Gas Tunisia GmbH | Non-trading | Switzerland | Non-trading | c/o Confidas Treuhand AG, Gubelstrasse 5, Postfach 1524, CH-6301 Zug |
| Capricorn Petroleum Limited | Holding company | Scotland | Scotland | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Resources Management Limited | Royalty interest | Scotland | Mongolia | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Senegal Limited | Exploration | Scotland | Senegal | 50 Lothian Road, Edinburgh, EH3 9BY |
| Capricorn Spain Limited | Exploration | Scotland | Spain | 50 Lothian Road, Edinburgh, EH3 9BY |
| Nautical Holdings Limited+ | Holding company | England | UK | 6th Floor, 20 Berkeley Square, London, W1J 6EQ |
| Nautical Italia SRL^ | Exploration | Italy | Italy | Piazza Pietro Merolli n. 2, 00151 Roma |
| Nautical Petroleum AG | Production | Switzerland | UK | Chollerstrasse 35, 6300 Zug |
| Nautical Petroleum Limited | Exploration and Development | England | UK | 6th Floor, 20 Berkeley Square, London, W1J 6EQ |
| Transunion Petroleum Italia SRL^ | Exploration | Italy | Italy | Piazza Pietro Merolli n. 2, 00151 Roma |
| UAH Limited+ | Holding company | England | UK | 6th Floor, 20 Berkeley Square, London, W1J 6EQ |

^ company is in the process of liquidation.
\+ exempt from audit under Section 480 of the Companies Act.

### 7.7 Capital Management

Capital and net debt were made up as follows:

| | 2017<br>US$m | 2016<br>US$m |
|---|---|---|
| Cash and cash equivalents | **0.6** | (0.4) |
| Net (funds)/debt | **(0.6)** | 0.4 |
| Equity | **2,763.4** | 2,754.7 |
| Capital and net debt | **2,762.8** | 2,755.1 |
| Gearing ratio | **0%** | 0% |

### 7.8 Related Party Transactions

The Company's subsidiaries are listed in note 7.6. The following table provides the Company's balances which are outstanding with subsidiary companies at the balance sheet date:

| | 2017<br>US$m | 2016<br>US$m |
|---|---|---|
| Amounts payable to subsidiary undertakings | **(64.3)** | (59.6) |
| Amounts receivable from subsidiary undertakings | **1.1** | – |
| | **(63.2)** | (59.6) |

The amounts outstanding are unsecured and repayable on demand and will be settled in cash.

The following table provides the Company's transactions with subsidiary companies recorded in the loss for the year:

| | 2017<br>US$m | 2016<br>US$m |
|---|---|---|
| Amounts invoiced to subsidiaries | **14.0** | 13.7 |
| Amounts invoiced by subsidiaries | **4.7** | 6.6 |

**Directors' remuneration**

The remuneration of the directors of the Company is set out below. Further information about the remuneration of individual directors is provided in the audited part of the Directors' Remuneration Report on pages 101-127.

| | 2017<br>US$m | 2016<br>US$m |
|---|---|---|
| Emoluments | **3.4** | 3.2 |
| Share-based payments | **3.6** | 1.4 |
| | **7.0** | 4.6 |

Pension contributions were made on behalf of directors in 2017 of US$0.2m (2016: US$0.2m).

1,438,565 LTIP share awards to directors vested during 2017 (2016: 462,065). Share-based payments shown above represent the market value at the vesting date of these awards.

**Other transactions**

During the year the Company did not make any purchases in the ordinary course of business from an entity under common control (2016: US$nil).

# Licence List
## As at 31 December 2017

| Country | Asset name | Licence | Block(s) | Operator | Cairn interest (%) |
|---|---|---|---|---|---|
| **Ireland** | | | | | |
| **Ireland** | SPANISH POINT | FEL 2/04 | 35/8, 35/9 | Capricorn Ireland Ltd | 38 |
| **Ireland** | SPANISH POINT NORTH | FEL 4/08 | 35/2b, 35/3b, 35/4a | Capricorn Ireland Ltd | 38 |
| **Ireland** | DRUID DROMBEG | FEL 2/14 | 52/5, 52/10, 52/15, 53/1, 53/6, 53/11 | Providence Resources (56%) | 30 |
| **Ireland** | LO 16/18 | LO 16/18 | 34/29, 34/30, 35/26, 43/4, 43/5, 44/1 | Capricorn Ireland Ltd | 100 |
| **Ireland** | LO 16/19 | LO 16/19 | 44/6 | Capricorn Ireland Ltd | 70 |
| **Mexico** | | | | | |
| **Mexico** | Block 7 | CNH-R02-L01-A7. CS-2017 | 7 | ENI | 30 |
| **Mexico** | Block 9 | CNH-R02-L01-A9. CS-2017 | 9 | Capricorn Energy Mexico | 65 |
| **Africa** | | | | | |
| **Morocco** | BOUJDOUR MARITIME | Boujdour Maritime | I-XVII | Kosmos Energy LLC | 20 |
| **Senegal** | RUFISQUE OFFSHORE, SANGOMAR OFFSHORE AND SANGOMAR DEEP OFFSHORE | Sangomar-Rufisque | N/A | Capricorn Senegal Ltd | 40 |
| **UK and Norway** | | | | | |
| **UK** | KRAKEN | P1077 | 9/2b | Enquest Heather Ltd | 29.5 |
| **UK** | CATCHER | P1430 | 28/9a | Premier Oil UK Ltd | 20 |
| **UK** | LAVERDA | P2070 | 28/4a | Premier Oil UK Ltd | 36 |
| **UK** | SUNBEAM | P2077 | 28/8a | Premier Oil UK Ltd | 36 |
| **UK** | EKLAND | P2184 | 22/18c, 22/19d | Nautical Petroleum | 45 |
| **UK** | CHIMERA | P2312 | 3/16a, 3/17a | No Operator | 100 |
| **Norway** | BERGAND | PL248C | 35/11g, 35/11h | Statoil Petroleum AS | 20 |
| **Norway** | GROSBEAK | PL378 | 35/12a | Wintershall Norge AS | 24.24 |
| **Norway** | SKARFJELL/NOVA | PL418 | 35/8f, 35/9e | Wintershall Norge AS | 20 |
| **Norway** | TETHYS | PL682 | 35/9b | Bayerngas Norge AS | 30 |
| **Norway** | INCA | PL722 | 7322/6, 7323/4 | Statoil Petroleum AS | 15 |
| **Norway** | DIONE | PL747 | 35/8 | Bayerngas Norge AS | 40 |
| **Norway** | DIONE EXT | PL747B | 35/8 | Bayerngas Norge AS | 40 |
| **Norway** | OFTENASEN | PL748 | 34/2, 34/5 | Det Norske Oljeselskap ASA | 20 |
| **Norway** | OFTENASEN EXT | PL748B | 34/5 | Capricorn Norge AS | 20 |
| **Norway** | LYNGHAUG | PL758 | 6508/1, 6608/10, 6608/11 | Lundin Norge AS | 50 |
| **Norway** | MORKEL | PL788 | 34/9, 35/4, 35/5, 35/7, 35/8 & 35/10 | Wintershall Norge AS | 50 |
| **Norway** | RAUDASEN | PL790 | 34/2, 34/5 | Det Norske Oljeselskap ASA | 25 |
| **Norway** | GRANNES | PL800 | 6508/1, 6508/2 | Lundin Norge AS | 50 |
| **Norway** | HAVHEST | PL828 | 36/4 | Statoil Petroleum AS | 40 |
| **Norway** | DOMPAP | PL840 | 6608/7,8 | Statoil Petroleum AS | 20 |
| **Norway** | STORHAUG | PL842 | 6608/10, 1, 12 | Capricorn Norge AS | 40 |
| **Norway** | BYHAUGEN | PL844 | 6609/5, 6, 8, 9 | DONG E&P Norge AS | 20 |
| **Norway** | ROSSI | PL853 | 7322/9 | Lundin Norge AS | 40 |
| **Norway** | FLIPPER | PL854 | 7322/3, 7323/1 | Statoil Petroleum AS | 40 |
| **Norway** | PRINSESSE | PL856 | 7228/11 | Capricorn Norge AS | 75 |
| **Norway** | HENG | PL875 | 29/9, 30/7 | Capricorn Norge AS | 40 |
| **Norway** | SEIL | PL877 | Part Blocks 30/3, 31/1, 31/4 | Capricorn Norge AS | 60 |
| **Norway** | TERAKO | PL880 | Part Blocks 35/8 | Capricorn Norge AS | 60 |
| **Norway** | AGAT | PL884 | Part Blocks 35/3 | Capricorn Norge AS | 30 |
| **Norway** | STJERNESKUDD | PL885 | Part Blocks 35/2, 35/3, 35/5, 36/1 | Capricorn Norge AS | 30 |

# Glossary

The following are the main terms and abbreviations used in this report:

Corporate

| | |
|---|---|
| 3Rs | Cairn core values: Respect, Relationships and Responsibility |
| AGM | Annual General Meeting |
| Board | the Board of Directors of Cairn Energy PLC |
| Cairn | Cairn Energy PLC and/or its subsidiaries as appropriate |
| Cairn India/CIL | Cairn India Limited and/or its subsidiaries as appropriate |
| Capricorn | Capricorn Oil Limited and/or its subsidiaries as appropriate |
| CEO | Chief Executive Officer |
| CERT | Crisis and Emergency Response Team |
| CFO | Chief Financial Officer |
| Company | Cairn Energy PLC |
| COO | Chief Operating Officer |
| CR | Corporate Responsibility |
| CRMS | Corporate Responsibility Management System |
| CSL | Capricorn Senegal Limited |
| CUHL | Cairn UK Holdings Limited |
| ELT | Exploration Leadership Team |
| ESOP | employee share trust |
| FAN | FAN oil discovery |
| Group | the Company and its subsidiaries |
| IMT | Incident Management Team |
| IS | information systems |
| LTIP | Long Term Incentive Plan |
| MT | Management Team |
| RMC | Risk Management Committee |
| SIP | Share Incentive Plan |
| SLT | Senior Leadership Team |
| SNE | SNE oil discovery |

Other

| | |
|---|---|
| 1C | Denotes low estimate scenario of contingent resources |
| 1P | Proved reserves, denotes low estimate scenario |
| 2C | Denotes best estimate scenario of contingent resources |
| 2D/3D | two-dimensional/three-dimensional |
| 2P | Proved plus probable reserves, denotes best estimate scenario |
| 3C | Denotes high estimate scenario of contingent resources |
| 3P | Proved plus probable plus possible reserves, denotes high estimate scenario |
| ABC | anti-bribery and corruption |
| ALARP | as low as reasonably practicable |
| APA | awards in predefined area (Norwegian licensing rounds) |
| AQI | Audit Quality Inspection |
| bbl | barrel |
| bn | billion |
| boe | barrel(s) of oil equivalent |
| boepd | barrel(s) of oil equivalent per day |
| BOP | blow out preventer |
| bopd | barrels of oil per day |
| bps | basis points |
| BST | British Standard Time |
| capex | capital expenditure |
| CDS | credit default swap |
| CIL | Cairn India Limited |
| CIS | Commonwealth of Independent States |
| COP21 | 2015 Paris Climate Conference |
| CSR | corporate social responsibility |
| DC | drill centre |
| DECC | Department of Energy and Climate Change |
| DEFRA | Department for Environment Food & Rural Affairs |
| E&A | exploration and appraisal |
| E&P | exploration and production |
| EAA | environmental area assessment |
| EIA | Environmental Impact Assessment |
| EITI | Extractive Industries Transparency Initiative |
| ERP | enterprise resource platform |
| ESA | exploration study agreement |
| ESIA | Environmental and Social Impact Assessment |
| EU | European Union |
| EY | Ernst & Young LLP |
| FDP | field development plan |
| FEED | front end engineering design |
| FEL | frontier exploration licence |
| FID | final investment decision |
| FPSO | floating production, storage and offloading |
| FRC | Financial Reporting Council |
| ft | foot |
| GBP | Great British Pound |
| GHGs | greenhouse gases |
| GMT | Greenwich Mean Time |
| GRI | Global Reporting Initiative |
| H1/2 | first/second half |
| HR | human resources |
| HRIA | Human Rights Impact Assessment |
| HSE | health, safety and environment |
| HSSE | health, safety, security and environment |
| IAS | International Accounting Standards |

# **Glossary** continued

Other

| | |
|---|---|
| IASB | International Accounting Standards Board |
| IFC | International Finance Corporation |
| IFRS | International Financial Reporting Standards |
| IIP | Investors in People |
| IITD | Indian Income Tax Department |
| INDC | intended national determined contribution |
| INR | Indian rupee |
| IOGP | International Association of Oil & Gas Producers |
| IP | investment proposal |
| IPCC | Intergovernmental Panel on Climate Change |
| IPIECA | International Petroleum Industry Environmental Conservation Association |
| IPO | initial public offering |
| ITT | invitation to tender |
| JV | joint venture (referring to industry term, not IFRS definition) |
| KPI | Key Performance Indicator |
| LIBOR | London Interbank Offered Rate |
| LPI | leading performance indicator |
| LTI | lost time incident/injury |
| LTIF | lost time injury frequency |
| m | million |
| mmbbls | million barrels of oil |
| mmboe | million barrels of oil equivalent |
| mmbopd | million barrels of oil per day |
| MMO | marine mammal observer |
| mmscfd | million standard cubic feet of gas per day |
| MSA | Modern Slavery Act |
| MSG | multi stakeholder group |
| NCS | Norwegian Continental Shelf |
| NGO | non-governmental organisation |
| NIBOR | Norwegian Interbank Offered Rate |
| NOC | national oil company |
| OECD | Organisation for Economic Co-operation and Development |
| ONHYM | Office National des Hydrocarbures et des Mines |
| OPEC | Organisation of Petroleum Exporting Countries |
| opex | operating expenditure |
| OSPAR | (Oslo/Paris) Convention for the Protection of the Marine Environment of the North-East Atlantic |
| P10 | estimate with a 10% probability of being equal or exceeded, low degree of certainty |
| P50 | estimate with a 50% probability of being equal or exceeded, medium degree of certainty |
| P90 | estimate with a 90% probability of being equal or exceeded, high degree of certainty |
| PCDP | Public Consultation and Disclosure Plan |
| PDMR | person discharging managerial responsibility |
| PDP | project delivery process |
| PSC | production sharing contract |
| PwC | PricewaterhouseCoopers LLP |
| Q1/2/3/4 | quarter 1/2/3/4 |
| RBL | reserves-based lending |
| SDGs | United Nations Sustainable Development Goals |
| STOIIP | stock-tank oil initially in place |
| TD | target depth |
| TRIR | total recordable injuries rate |
| TSR | total shareholder return |
| TVDSS | total vertical depth sub sea |
| UK | United Kingdom |
| UKCS | UK Continental Shelf |
| UN | United Nations |
| UNGC | United Nations Global Compact |
| US$ | United States of America dollar |
| WEC | well engineering and construction |
| WI | working interest |
| YE | year-end |
| YTD | year to date |

# Company Information

**Financial Advisers**
**Rothschild & Co**
New Court
St Swithin's Lane
London
EC4N 8AL

**Secretary**
**Duncan Wood LLB**

**Solicitors**
**Shepherd and Wedderburn LLP**
1 Exchange Crescent
Conference Square
Edinburgh
EH3 8UL

**Auditor**
**PricewaterhouseCoopers LLP**
141 Bothwell Street
Glasgow
G2 7EQ

**Stockbrokers**
**Morgan Stanley**
20 Bank Street
Canary Wharf
London
E14 4AD

**J.P. Morgan Cazenove**
25 Bank Street
Canary Wharf
London
E14 5JP

**Registrars**
**Equiniti**
Aspect House
Spencer Road
Lancing
West Sussex
BN99 6DA

**UK shareholder helpline number**
T: 0371 384 2660

**Overseas shareholder helpline number**
T: +44 121 415 7047

**Textel helpline number**
T: 0371 384 2255

**Shareview dealing helpline number**
T: 0345 603 7037

www.shareview.co.uk

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Cairn

### Head Office
50 Lothian Road
Edinburgh
EH3 9BY
T: +44 131 475 3000
F: +44 131 475 3030
E: pr@cairnenergy.com
www.cairnenergy.com

### London
6th Floor
20 Berkeley Square
London
W1J 6EQ

### Norway
Jåttåvågveien 7
Blokk C
3 etasje (2nd floor)
4020 Stavanger
Norway

### Senegal
Immeuble EPI
Blvd du Sud x Rue
des Ecrivains
3eme etage
Point E
Dakar
Senegal
BP. 25087 Dakar Fann

### Mexico
Capricorn Americas
México. S. DE R.L. DE C.V.
Torre Mayor
Av. Paseo de la Reforma 505
Floor 36 Suite "D"
Col. Cuauhtémoc
Del. Cuauhtémoc
Postal Code 06500
México City

**www.cairnenergy.com/ar2017**