



New realities – re-inventing our industry

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5 September 2017





Good morning everyone.

Thanks Catherine and thanks Janeen for the introduction.

It's great to be back in Aberdeen.

I've just come back from the US where of course the country is facing the fallout from Hurricane Harvey, particularly in Texas.

Our colleagues in Houston are going through an extremely difficult time right now, and our thoughts are with them and all those affected by the storm.

Like Houston, Aberdeen is one of the great oil and gas cities of the world. This is actually my third visit in the past 9 months, so I'm almost a "local" again.

This was my home back when I was a production engineer in the 1980s.

It's where my son was born.

Around that time Aberdeen was the new frontier – showing the world how to explore and operate in some of the harshest conditions anywhere on the planet.

It's where many of the great innovations of the offshore industry began.

Skills learned here have shaped the industry all around the globe.

It's why the North Sea will always be one of the great basins.

That continues to be the case and we're now seeing a renewed focus in the basin. I'm really pleased about that.

- We've seen Hurricane Energy's big discovery earlier this year – opening the prospect of major new resources west of Shetland
- Total's new commitment, with the acquisition of Maersk Oil.
- Our own partnership in Norway with Det Norske to create AKER BP.

People will have heard me talk about the North Sea as one of the crown jewels in our portfolio.

We've looked at the portfolio and reshaped it.



And now we're very focused on key areas – in the Central North Sea and in particular West of Shetland.

We're back to growth in the basin with our Quad 204 project coming online and Clair Ridge on track for next year, with great partners in these projects such as Shell, Siccar Point, Chevron and Conoco Phillips.

It is great to have Ben here from Shell – again a key partner in both these projects.

BP is also participating in six exploration wells being drilled this year in the UK as well.

So, the North Sea is significant for us in our global plans in a world that is changing fast.

We're in a new oil price environment – one that demands a different way of thinking to stay competitive.

We're also in a changing supply environment– one where oil and gas resources in the ground are not just abundant, but are economic to produce as well.

And renewables are knocking at the door in terms of cost competitiveness.

We are also in a geopolitical environment that's more volatile and uncertain today than I can recall. One that affects the relationships and the risks that we all have to manage.

One thing that's not so different is the world's demand for energy – which is expected to keep on growing.

Perhaps not as fast as in the recent past, but still up by about 30% over the next two decades as emerging economies develop and populations grow.

In order to meet that growing energy demand, all forms of energy will be needed.

But if climate change is to be tackled, our industry needs to play its part in embracing and driving the low carbon transition

This all adds up to a different future.

But it's a future that plays to the qualities and strengths that are deep in the DNA of this region.

We have re-invented ourselves in the past.

Given the pace of change, we need to continuously re-invent ourselves.

To be able to achieve that, we will need genuine innovation.

I want to talk about innovation in three areas:



- Firstly, in how we run our existing businesses - challenging and improving the efficiency and competitiveness of everything we do
- Secondly, in how we develop our future businesses and business models
- And thirdly, in how we build partnerships – partnerships with suppliers, customers, governments, regulators and with society.

I'd like to briefly expand on each of those three areas of innovation.

1. Innovation in how we run our existing businesses

Starting with our core businesses, we fundamentally need to find ways to do “more with less” – to consistently deliver safe and reliable operations at lower cost.

That is already happening as we leverage technology, automation, digitisation and new ways of working.

To give one example, a BP engineer, anywhere in the world, can now get real-time well performance alerts through an application that processes almost a billion data points per second across our network.

This has a very real impact on safety and the speed at which we can intervene to maintain production reliability.

The same philosophy of innovation applies to improving recovery.

We'll be trialling new seismic capability using ocean bottom cables at Clair Ridge, along with acoustic sensors inside the wells.

We think this will completely transform the detail and clarity of reservoir imaging, as well as enabling much closer well monitoring.

We recently trialled a new method of positioning drilling rigs – all done remotely with the surveyors staying onshore, so it could prove to be a safer operation as well as lower cost.

For some areas of the business, simple standardisation could be transformational – and this focus on standardisation, simplification and discipline on cost has contributed to our average production costs in the North Sea coming down from a peak of over \$30 a barrel in 2014, to less than \$15 a barrel today.

Heading towards 2020, with all our major new developments coming into production, we expect that to come down below \$12 a barrel in the North Sea.

2. Innovation in future business models

The second area of innovation is in the type of businesses we develop in the future, and the shape of future business models.

Oil and gas will be a big part of the mix for decades to come. But the fuel mix is changing, along with the way resources are produced and delivered as we move to lower carbon and look to advance that transition.

It's an environment with opportunities for the most efficient and competitive producers – and for producers of more efficient products, like fuels and lubricants that offer more miles per litre or a higher bio-content that lowers the carbon footprint.

Gas is going to be increasingly important, as a lower carbon fuel, and our portfolio is shifting towards more gas as we put together the right projects.

We're seeing energy companies like ourselves at BP – like Shell and Total – looking to get closer to the consumer with our products and our product offers.

Renewables have long been a part of the portfolio for a lot of international oil companies, and that is expected to grow and diversify as new opportunities come along, particularly for BP in terms of 'bio' for fuels and feedstocks.

We recently acquired a joint venture facility in the US that will help with the commercialisation of biobutanol.

We're very much focused on using venturing to screen for and test new emerging technologies in the area of lower carbon – in e-mobility, in e-commerce, renewables and other areas.

3. Innovation in partnerships

The third area of innovation is in our partnerships.

In a long-wavelength industry like ours, we measure a lot of relationships not just in years but in decades and that's important.

It builds the trust that's required to adapt and change as the circumstances of the world change.

A good example here in the UK is the reformed regulatory regime – and the much more supportive approach to maximising economic recovery.

It's a mutually beneficial way of working. The same applies for companies collaborating, when you bring together different strengths, as we did in Norway with the creation of Aker BP.



We brought together det Norske's streamlined operating model and BP's long experience and technical expertise in the basin.

The benefits are bigger than the sum of the individual parts.

It's a new model but one that is working really well in this case.

The new realities will demand new types of partnership and new types of collaboration – perhaps venturing into areas we wouldn't have imagined just a few years ago.

Relationships cannot be replaced by machines or technology.

The human touch is, and will still be, needed in the future.

And in the current geopolitical climate, our relationships with each other – between operators, partners and suppliers – are going to be more important than ever.

With the attention of governments around the world being drawn increasingly to domestic socio-political challenges and international threats, we may need to rely increasingly on our own abilities to navigate our way forward.

Conclusion

Over the past few years, this region has been a leader in re-invention.

In the face of a world of change, it has rolled up its sleeves and responded in a way that is admired and respected around the globe.

It has been a tough time, no question about that. Tough for many people in the industry in this region. Tough on their families.

But in this tough environment, we see the North Sea turning things around.

Costs are coming down and oil production is back up.

There is plenty of life left in the basin, but it has never been a basin of easy barrels – even less so today after 5 billion barrels of production.

We have to be highly competitive, cost-efficient and disciplined, and then a step beyond that.

In recent years we've seen how the onshore industry in the US has reinvented itself.



The offshore industry in Europe has to do the same – harnessing the spirit of innovation that built the frontier back in its early years.

And there is no better, no more experienced, no more innovative workforce anywhere in the world.

That's why BP and its peers continue to invest in this great region.

And why I believe the future is bright for the North Sea.

Thank you.