



# Shaping the energy future: integration and diversification

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## Introduction

Thank you, Nader - and good evening, ladies and gentlemen.

It is a pleasure to be here in Kuwait. BP's work here goes back 80 years to helping found the Kuwait Oil Company.

And we are delighted to still be here working with you to support Kuwait's strategy to produce four million barrels of oil a day.

I am proud of the team we have created together here and their achievements in increasing production. Together, we are deploying new technologies and making great progress.

Indeed, last month Jamal Jaafar, KOC's CEO, and I both spoke at a conference in Paris organised by Schlumberger.

I also noticed that Jamal has said that the spirit of teamwork displayed by KOC's employees has been the key to its success in remaining a leader in its field.

I agree, I have seen that spirit of teamwork in action and it is great to have KOC as a partner. Thank you.

A lot of good points have been made and so I will just add two.

- First, why I am still optimistic despite today's challenges;
- Second, a little on how BP has responded to them.

## Context

As we all agree, the industry is certainly facing new challenges.

After years of high prices, high margins and high costs, we now face lower prices, tighter margins and the need for sustainably lower costs.

And after years of hydrocarbons dominating the energy market, they now face growing and healthy competition from renewables.

So why be optimistic?

First, this is good for the consumer. Affordable energy lifts people from poverty and improves living standards.

Second, it is good for the environment. We need a transition to a lower-carbon economy. And we as an industry need to be a part of it.



Third, there is no shortage of demand. The fall in the oil price was supply-driven and demand for energy is set to keep growing for decades.

And fourth, this has obliged us to create the modern, hi-tech industry we should be.

## BP response

In BP specifically, our programme of modernisation and transformation has reduced costs by \$9 billion in three years while we have also kept investing to increase production by 800 thousand barrels a day over 5 years to 2020.

The top priority is of course safety - then agility, mindset change and digitization.

Agility is largely about simplicity and standardisation.

Mindset change is tough. But we have found it helps a lot to look at other industries and then look afresh at your own.

A lot has already been said about digitization. And I would add that the real transformation is the integration of physical assets with digital technology.

That is why it is sometimes referred to as the 'fourth industrial revolution' – after steam, electricity and automation.

In BP we have a vision we call 'The Connected Upstream'.

It includes intelligent monitoring, with more than 2,000 kilometres of fibre optic systems linking offshore operations to monitoring centres.

It includes system optimisation, and predictive analytics, using a cloud-hosted data platform covering 2,500 wells.

All of this is underpinned by a data lake of over a petabyte – roughly equivalent to 20 million filing cabinets.

And this is just the start. Massive transformation will happen as machine learning, robotics and other technologies evolve.

## Conclusion

Our work in Kuwait shows these themes coming together.



The maturing of the Burgan field has been a challenge, but also an opportunity.

We have been privileged to support KOC in taking that opportunity, identifying new well locations and using enhanced oil recovery, aided by digital technology. This has nearly doubled production at the Wara reservoir over three years.

This also demonstrates that while much is changing, one thing is not. And that is the power of partnership.

So, we look forward to working with our partners here in Kuwait and across the industry to seize these opportunities and build the industry of tomorrow.

Thank you.