What is the Business Environment for Global Exploration in 2025 –
And What We Need to do Now to Succeed*

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Abstract

Following the oil price crash in 2014, exploration drilling has been at a record low, also seeing a drop in the annual discovered resources since then. This, together with the global production decline, will assure capital investment in exploration in the near future. However, there are two factors that are beginning to play an increasingly important role in shaping what the future of exploration will look like: the energy transition and digital technologies. The energy transition is a necessary and progressive step towards cleaner energy for a growing global population. However, exploration will play a challenging role in this transition as companies will seek to sure up resources in a world that will demand greener corporations.

Another important factor will be the use of digital technology to improve and re-shape the workflows that we employ across our business. It is taking place across all industries and exploration is no exception. New machine learning workflows will have an impact on how and where exploration takes place and the pace at which stakeholders are able to make decisions. As exploration becomes more difficult with challenging new geological plays and a competitive multi-player landscape, it is essential for companies to define a transformational strategy to prepare for these challenges.

This article incorporates industry trends, corporate strategies and academic research to define a business model for what global exploration will look like in 2025. How we form teams is going to change and they will also need to be flexibly deployed. There will be a sharper focus on where we explore across the globe and how quickly we can see a return on this investment. Societal and regulatory changes will have an impact on what a responsible corporate citizen looks like. As such, there will be a need for closer collaboration between companies and countries in seeking greener solutions to meet emission targets. Furthermore, this article will define a strategy for what companies need to implement now to survive and thrive in the future.
Opex 0  1  0  1  1  0
1  0  1  0
Asia sector 0  1  1  1  0
20
[Accessed 26 August 2019].
CUM RT Cash Flow 7% DR
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By Ronnie Ameerali (MBA, MSc, BSc)

What is the business environment for global exploration in 2025 – and what we need to do now to succeed

The commercial success rate for frontier exploration over the last five years has been just 6%,
In 2019, high impact drilling is forecast to increase by 20% to around 80 wells, with more high
• In 2018, exploration drilling activity increased by nearly 30% overall compared to 2017.

Insights from Westwood Report:

In 2018, Exploration drilling activity increased by nearly 30% overall compared to 2017.
• Total commercial volumes from high impact drilling decreased to 5 dbnboe from 9 dbnboe in 2017
due to smaller average pool size, although more 100mbboe* discoveries were made. Overall
commercial success rates were down to 33% in 2018 from 48%.
• The commercial success rate for frontier exploration over the last five years has just been 6%,
opening nine new plays from 134 wells at a cost of $11 billion.
• 15% of the discoveries over the last five years, categorized as high-risk, have been deemed
commercial.
• In 2019, high impact drilling is forecast to increase by 20% to around 80 wells, with more high
impact wells planned in maturing and mature plays.

The current state of Exploration

Graphs extracted from an article by Westwood Insights “The State of Exploration 2019”

Our business model is going to change….

How we work together will change...

The Exploration teams of the future will likely be those that can move faster, adapt more quickly, learn more rapidly, and embrace dynamic and dual careers. Digitalization and digitization will have a big role to play in this. However, teams will have to be re-designed not only for efficiency, but also speed and adaptability to enable them to compete in the global exploration business.

Graph of cumulative spend on a project from opportunity access to first production.

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BP Energy Outlook 2018. The BP Energy Outlook: How much energy will be used in 2050, when the gas supply will make up more than 50% of the energy mix. The second column indicates when the oil and gas industry supply (production) begins to shrink. The final column highlights when the gas supply will surpass oil (on a cistern basis).

Conclusions
To succeed in the future, Exploration will need to place emphasis on the following areas now:

The Role of the Geoscientist
With mundane tasks being done by machine learning, geoscientists will spend much more time focused on unlocking the complex challenges of geology, high-grading the portfolio and working with stakeholders to drive the project forward. Exploration will need to be staffed with technically strong geoscientists, wherever they may be based.

Invest in Research and Technology
The future is more competitive than it has ever been and a successful Exploration organization needs to be at the forefront of technology and research. Key focus areas should be in both digital and green technologies.

Focus on financial efficiency and accelerated project timelines
Many major companies already have a varied energy portfolio and so there is competition for funds internally in an already challenging external environment. As a result, Exploration needs to focus on financial efficiency and to make more projects more attractive, work more collaboratively with other companies and governments to bring forward first production. It also needs to quickly and critically evaluate the likelihood of project success and define a viable exit strategy in the case of failure.