Sustainable Petroleum Activities in the Arctic
Statoil’s Approach to the Arctic: Knowledge and Challenges

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Increased attention to Arctic issues

The vanishing north
What the melting of the Arctic means for trade, energy and the environment
A 16-PAGE SPECIAL REPORT

Picture courtesy of the US State Department
High potential, low tension

An estimated 22% of the remaining yet-to-find oil and gas resources is expected to be found in the Arctic.
Conventional discovered volumes 1960 - 2011

Discovered oil
Discovered gas
Oil production
Gas production

Source: IHS EDIN / EI team analysis

Classification: Open
Taking a stepwise approach

- Based on solid understanding of environment
- Highly regulated
- Co-existence
- Taking it step by step
- Not moving faster than technology allows
Sustainable development

- Economic activities
- Social dimension
- Climate and environmental concerns
- Technology availability

Fact-based decisions
There is not just one Arctic

**Extreme**
Solutions are hard to visualize and require long term investment combined with new approaches

**Stretch**
Solutions require major innovation, but could be achievable with focused investment on the medium to long term

**Workable**
Solutions can be based on known technologies, and any remaining technology needs are within reach in the short to medium term.

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The Arctic challenges

Safe and sustainable operations

Climatic conditions | Health and safety | Environment | Remoteness

Licence to operate
 Over 30 years of Arctic experience

 More than 100 wells drilled north of the Arctic Circle

 Proven record as operator and partner
Statoil well positioned in the Arctic
It’s not a sprint... but a marathon

Barents Sea opens for exploration

<table>
<thead>
<tr>
<th>Year</th>
<th>Gas discoveries</th>
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<tbody>
<tr>
<td>1980</td>
<td>1981 (Askeladd)</td>
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<td>1982 (Albatross)</td>
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<td>1984 (Snøhvit)</td>
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Maturing technology and economics

Snøhvit approved

Snøhvit start-up

2002

2007

Snøhvit example
How to succeed in the Arctic

Licence to operate

- Trust is the new currency. Society is expecting more transparency from our industry

Innovation

- We need more innovative technology and business models to succeed in the Arctic

Collaboration

- Nobody can survive alone in the Arctic
- There is not just one Arctic
- Collaboration is key to manage cost and risk
- Licence to operate is imperative
There’s never been a better time for good ideas.

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