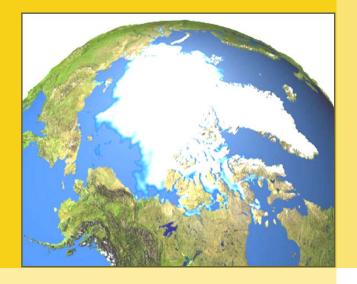


# **Energy Frontiers: Shell's perspective on business in the Arctic**

#### **Meet ALASKA**

**Anchorage** 

**January 21**st, **2011** 



Robert Blaauw

Senior Advisor Global Arctic Theme

#### DISCLAIMER STATEMENT

This presentation contains forward-looking statements concerning the financial condition, results of operations and businesses of Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forwardlooking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Shell to market risks and statements expressing management's expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as "anticipate", "believe", "could", "estimate", "expect", "goals", 'intend", "may", "objectives", "outlook", "plan", "probably", "project", "risks", "scheduled", "seek", "should", "target", "will" and similar terms and phrases. There are a number of factors that could affect the future operations of Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this presentation, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell's products; (c) currency fluctuations; (d) drilling and production results; (e) reserve estimates; (f) loss of market and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures as a result of climate changes; (k) economic and financial market conditions in various countries and regions; (I) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. All forward-looking statements contained in this presentation are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Each forward-looking statement speaks only as of the date of this presentation. Neither the Company nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this presentation.

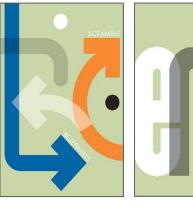
The United States Securities and Exchange Commission (SEC) permits oil and gas companies, in their filings with the SEC, to disclose only proved reserves that a company has demonstrated by actual production or conclusive formation tests to be economically and legally producible under existing economic and operating conditions. We use certain terms in this presentation, such as "resources" that the SEC's guidelines strictly prohibit us from including in filings with the SEC. U.S. Investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575 and disclosure in our Forms 6-K file No, 1-32575, available on the SEC website www.sec.gov. You can also obtain these forms from the SEC by calling 1-800-SEC-0330.

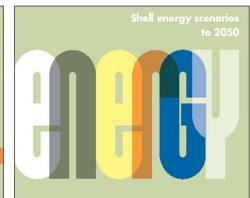
Like the other (interim) holding companies in the Shell Group, RDS is not (directly) involved in the operations of Shell companies. Shell companies are independent companies and are autonomously managed. Shell companies do not instruct each other, but are deemed to comply with those "Shell" policy rules that they have adopted themselves."

### The Energy Challenge

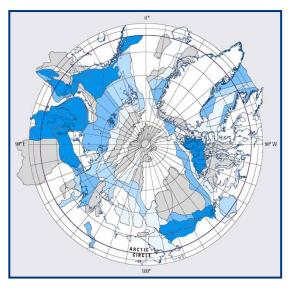
- Rapid demand growth
- Supply will struggle to keep up
- Access to easy oil is over
- Environmental impact (CO<sub>2</sub>)
- Renewables are emerging but slowly
- It has taken 25 years for a new form of energy to obtain 1% market share
- We live in a world of <u>AND</u>
- Coal, Oil, **Gas**, Nuclear, Hydro, Wind, Solar, **Biofuels** etc.
- Environmental and social impact solutions are a must

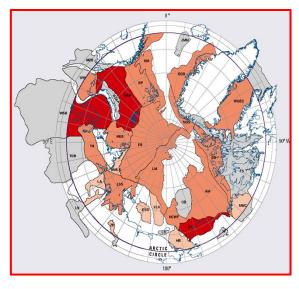
#### There is a need for responsible Arctic Oil & Gas development

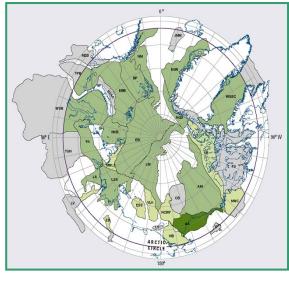


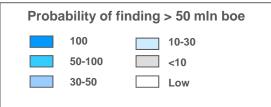


#### **Arctic Oil & Gas Resources - USGS 2008\***

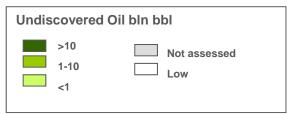








Undiscovere	ed Gas tcf
>100 6-100 <6	Not assessed Low



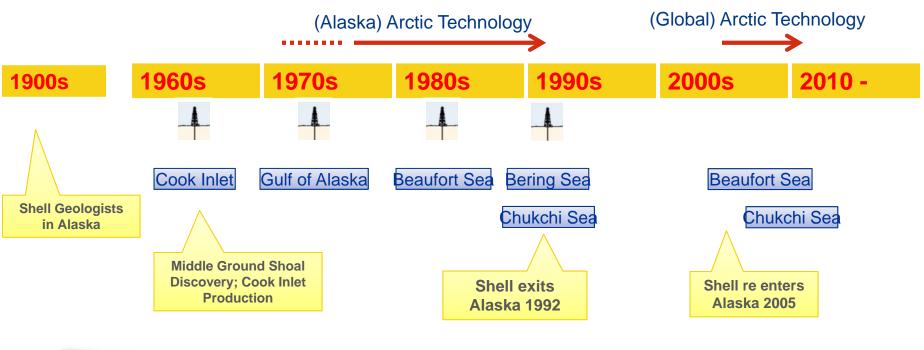
YTF (USGS 2008)		Global
Oil:	90 bln bbl	13%
Gas:	1669 tcf	13% 30%
NGLs:	44 bln bbl	20%
<u>Total</u>	412 bln boe	22%
	84% offshore	

MMS 2006 Alaska OCS	
Undiscovered Technically Recoverable	
Resources	
Oil 26.6 bln bbl	
Gas 132 Tcf	
Total 50.1 bln boe	

\*) Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle.

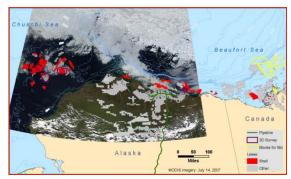
USGS 2008

#### **Shell Alaska History**









## Sakhalin II











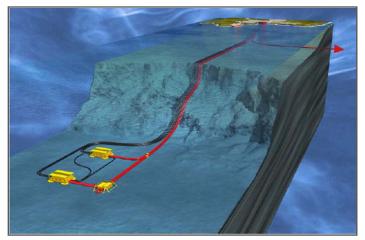


Copyright of Shell International Exploration and Production B.V.

# **Norway**





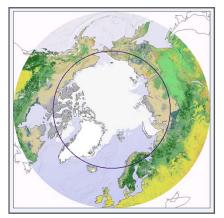




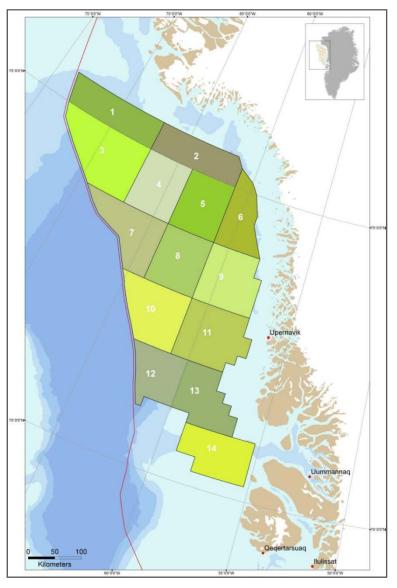
Ormen Lange subsea installations

## **Greenland**









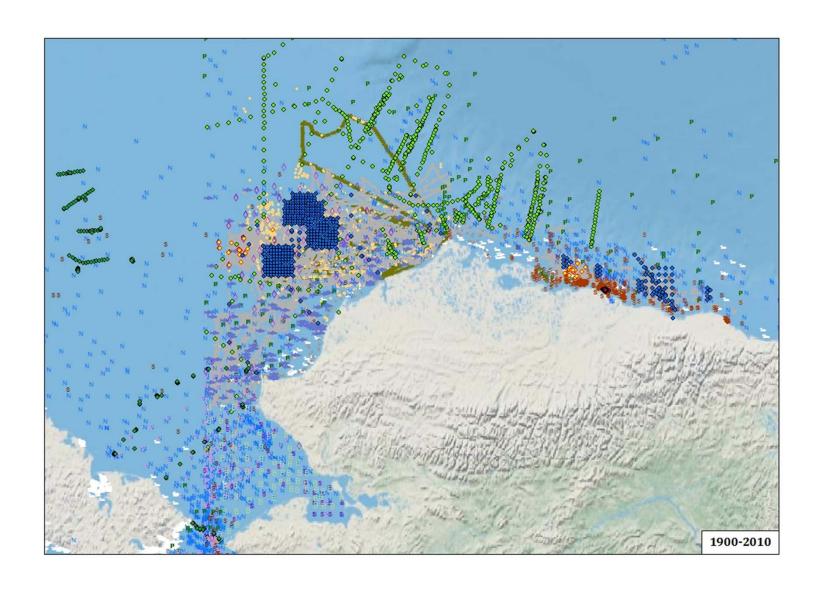
### **External challenges**

- External attention increasing
- Focus on the big four Sustainable
   Development issues and Regulator
  - □ Oil Spill in Ice
  - □ Indigenous peoples
  - □ Biodiversity management
  - Climate change
  - Regulatory
- Mitigation strong link with technical (footprint reduction and Oil Spill Response)





# **Historical Overview of U.S. Arctic OCS Science**



#### **Arctic Technology**



#### OPERATING IN ICE

- Safety, reliability, cost effectiveness
- Examples: ice load, ice management, structures pipeline protection, under-ice installations, shipping and logistics



#### FOOTPRINT REDUCTION

- Reduce impact secure permits and approvals
- Examples: unmanned aircrafts, automated underwater vehicles, discarge systems, marine sound mitigation



#### OIL SPILL REPONSE IN ICE

- Licence to operate
- Examples: mechanical methods, under-ice detection, in-situ burning, dispersants, environmental impacts

#### **Standards**























# **Indigenous People**









Copyright of Shell International Exploration and Production B.V.

# **Cooperation with Shell Strategic Partners**



- Western Grey Whale Advisory Panel
- Cross Sector Impact Assessment
- Eco-System Based Management



Study of oil and gas industry impact mitigation on Arctic wetlands, wetlands recovery and restoration



Marine Conservation Action Plan for Beaufort Sea and Chukchi Seas



Earth Watch fellowships: Climate Change at the edge of the Arctic



- Arctic Climate Change Commission
  - Arctic Governance principles
  - Recommendations

#### Conclusion

- Energy Challenge
- Arctic Oil and Gas
- Responsible Development
- Energy strategy, policies, regulations, standards
- Cooperation
- Shell has 50 years Arctic experience
- TREMENDOUS OPPORTUNITIES

