

# SHAPING THE FUTURE OF ENERGY – THE IMPORTANCE OF SCIENTIFIC COLLABORATION AND TALENT

CONCAWE Symposium. February 25, 2013



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### **DEFINITIONS AND CAUTIONARY NOTE**

Resources: Our use of the term "resources" in this announcement includes quantities of oil and gas not yet classified as Securities and Exchange Commission of the United States ("SEC") proved oil and gas reserves or SEC proven mining reserves. Resources are consistent with the Society of Petroleum Engineers 2P and 2C definitions.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this announcement "Shell", "Shell Group" and "Royal Dutch Shell" are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. "Subsidiaries", "Shell subsidiaries" and "Shell companies" as used in this announcement refer to companies in which Shell either directly or indirectly has control, by having either a majority of the voting rights or the right to exercise a controlling influence. The companies in which Shell has significant influence but not control are referred to as "associated companies" or "associates" and companies in which Shell has joint control are referred to as "jointly controlled entities". In this announcement, associates and jointly controlled entities are also referred to as "equity-accounted investments". The term "Shell interest" is used for convenience to indicate the direct and/or indirect (for example, through our 23 per cent shareholding in Woodside Petroleum Ltd.) ownership interest held by Shell in a venture, partnership or company, after exclusion of all third-party interest.

This announcement contains forward looking statements concerning the financial condition, results of operations and businesses of Shell and the Shell Group. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking 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 and the Shell Group 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", "project", "risks", "seek", "should", "target", "and the project of the project "will" and similar terms and phrases. There are a number of factors that could affect the future operations of Shell and the Shell Group and could cause those results to differ materially from those expressed in the forward looking statements included in this announcement, 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) reserves estimates; (f) loss of market share 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 addressing climate change; (k) economic and financial market conditions in various countries and regions; (1) 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 announcement 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. Additional factors that may affect future results are contained in Shell's 20-F for the year ended 31 December 2011 (available at www.shell.com/investor and www.sec.gov). These factors also should be considered by the reader. Each forward looking statement speaks only as of the date of this presentation, February 22 2013. Neither Shell nor any of its subsidiaries nor the Shell Group 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 announcement.

Shell may have used certain terms, such as resources, in this announcement that the SEC strictly prohibits Shell from including in its filings with the SEC. U.S. investors are urged to consider closely the disclosure in Shell's Form 20-F, 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.

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### THE ENERGY CHALLENGE

### **DELIVERING TODAY'S AND TOMORROW'S ENERGY**





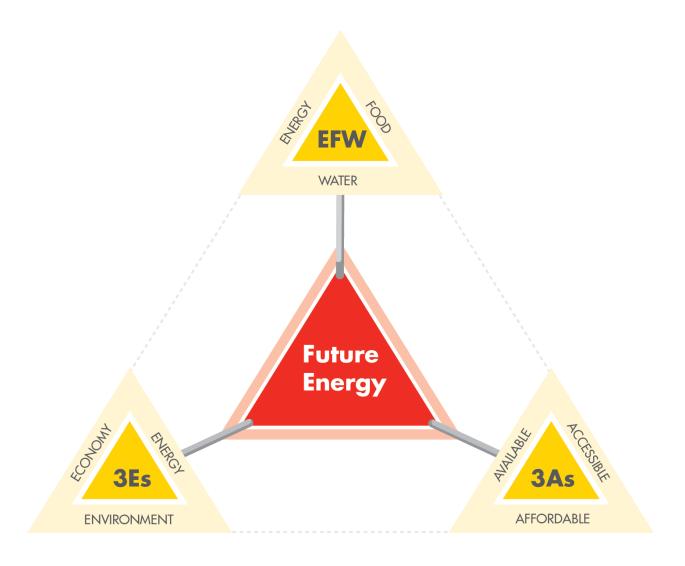








### **FUTURE ENERGY: A TRIPLE TRILEMMA**



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### PRODUCING WATER IN THE DESERT - PEARL GTL, QATAR

- Pearl will produce as much water as GTL products due to chemical reaction that occurs when synthesis gas passes over catalysts
- Expected to be possible to run the plant without drawing on scarce natural freshwater resources
- A water-processing facility (one of the largest in the world) will recover & treat all industrial process water for re-use
- Comparable to a plant for a town of 140,000 people
- Water re-used for steam make-up, cooling & utilities. Small amount will be used to irrigate landscaped areas at Pearl.





### **CHEMICAL ENGINEERING FUTURES - ICHEME**



sustainability

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Key challenges

### SHELL AND SUSTAINABLE DEVELOPMENT

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### Earn licence to operate and grow



Earn support from communities where we operate and reduce risks and delays. Attract investors, partners, customers and employees.

### Drive innovation in technology



Unlock business opportunities through lower-impact technologies.

### Win market share with better products



Attract customers by anticipating their demands for affordable energy with lower environmental and social impacts.







It is the right thing and the smart thing to do

### RHEINLAND REFINERY COMPLEX

- The Rheinland refinery complex in Germany needs to transfer products between two sites several kilometres apart and separated by the Rhine river.
- We worked closely with community members, local authorities and nongovernmental organisations to route the pipeline to avoid an area rich in biodiversity.
- Construction has been designed not to disrupt farming in the area



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### SHELL'S RESPONSE TO THE CO2 CHALLENGE



Supplying More Natural Gas



Progressing CCS



Supplying More Biofuels



Energy Efficiency In Our Operations

### **ENERGY EFFICIENCY IN OPERATIONS**

IMPLEMENTING A MULTI-BILLION DOLLAR ENERGY EFFICIENCY PROGRAMME ACROSS PLATFORMS AND REFINERIES





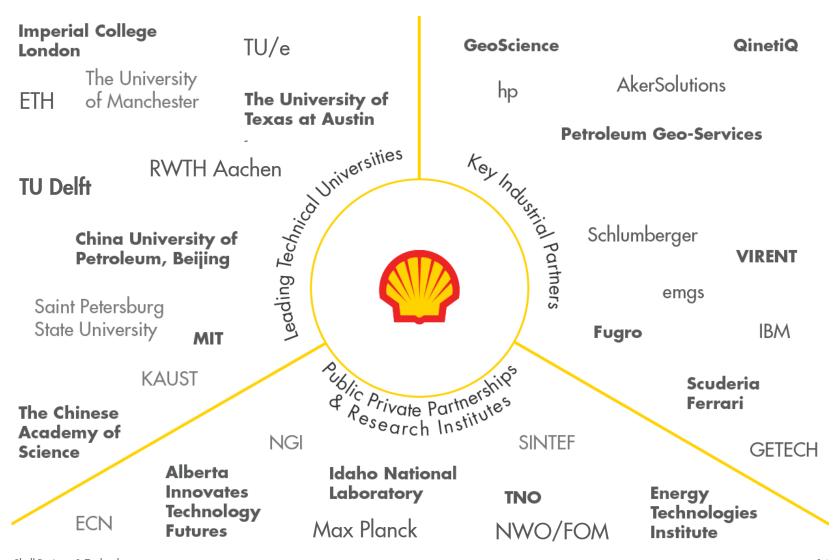
IMPROVEMENTS WILL REQUIRE
DISCIPLINE, PERSISTENCE
AND CREATIVE THINKING
AS MORE ENERGY INTENSIVE
PRODUCTION METHODS
ARE NEEDED

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## SCIENTIFIC COLLABORATION AND "HUMAN CAPITAL"

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### TECHNOLOGY SOLUTIONS THROUGH COLLABORATION

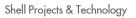


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### PEOPLE MAKE THE DIFFERENCE

















### SCIENCE, INNOVATION & COLLABORATION ARE KEY

- •Collaboration, open innovation and active partnerships to bring together professional bodies, scientists & engineers, businesses, governments, regulators and wider societal stakeholders
- •Crucial to develop understanding of the critical issues
- •Help prioritise attention and investment towards potential creative solutions
- •Harness skills and imagination of a new generation of leaders, scientists and innovators.



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