

#### 25th world gas conference

"Gas: Sustaining Future Global Growth"

# Fostering Research and Innovation to Unlock Reservoir Potential

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Patron



Host

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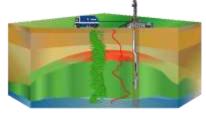




## **Schlumberger Technologies Today**



## Reservoir Characterization



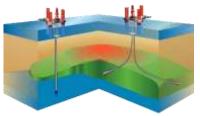
Characterizing the Reservoir Measurements, Well testing



115,000 employees 167 Nationalities 94 Countries



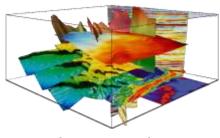
Reservoir Production



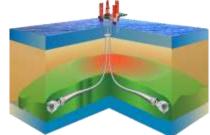
Drilling

Producing the Reservoir

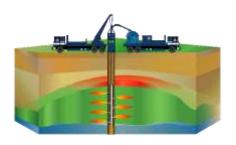
Completions, Artificial Lift



Interpretation
Consulting & data processing
Software



Accessing the Reservoir
Well construction
Well placement

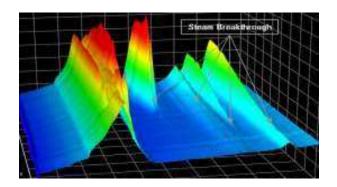


Optimizing the Reservoir Stimulation, Intervention

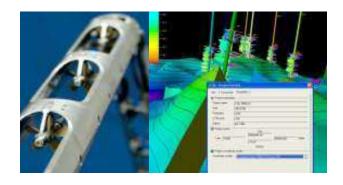
### **Industry Challenges for Technology**



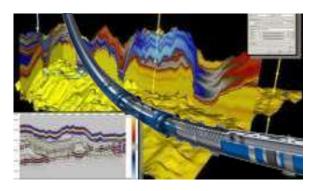
### Recovery from Ageing Fields



Deep and Harsh Environments



### **Exploration**



**Unconventional Hydrocarbons** 











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Saudi Arabia

Brazil

Cambridge UK

Saudi Arabia

700 Projects

**2,500** Products

15,000 Employees

## Goal of Research: Develop Major Platforms of Knowledge



Horizon 1: 1-2 Years Horizon 2: 3-5 Years

Horizon 3: 5-10 Years

Mature
Businesses and
Markets

Major new growth businesses and markets

Portfolios of experiments for long term growth

Scientific support of commercial introductions

Next generation platforms

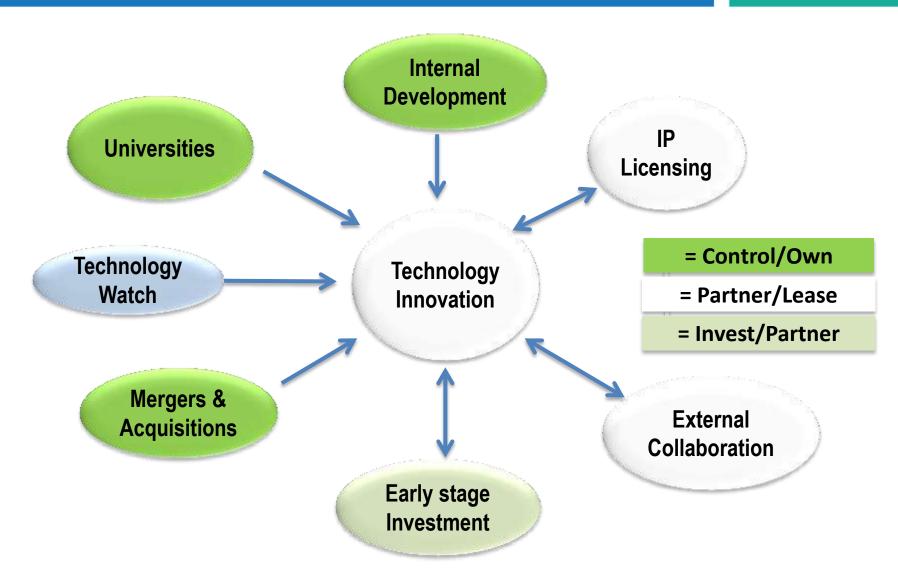
Breakthrough Projects

Risk & Uncertainty

**Control & Support** 

## Meeting Innovation Requirements

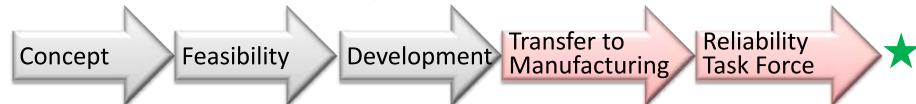




## Changing the Way We Develop Products



### Project Lifecycle Management Process: Sequential





Concurrent Lifecycle Management: Parallel

Develop
Produce
Support

"Design for Manufacturing/Reliability/Maintenance"
Ongoing Technology Projects Separated

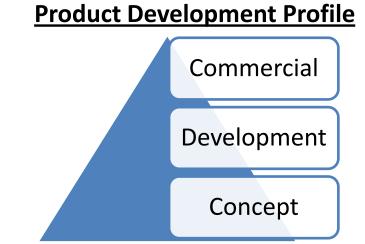
- More innovation less reinvention
- Fewer unplanned iterations

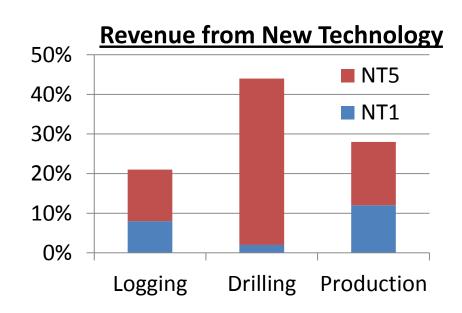
- Faster commercialization
- Reliable products

#### **Innovation and Measurement**



- Input to the pyramid
- Technical careers
  - Communities of practice
  - Business input
  - Recognition
- Are we successful?
  - Monitoring results
  - New Technology < 5 years</li>
  - New technology < 1 year</li>





### **Thank You**





