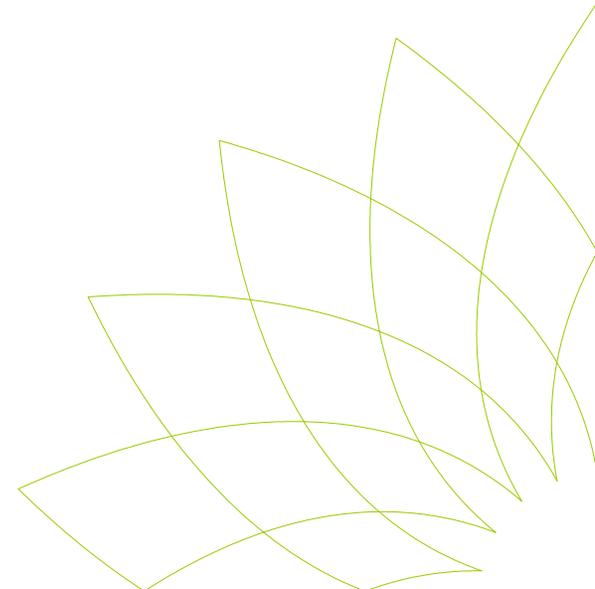




# **C O P I N G   W I T H   C A R B O N**

## **BP's Technology Investment for a Carbon Constrained Future**

**Pete Smith**  
**2<sup>nd</sup> Annual Conference on Carbon  
Sequestration, Washington**  
**May 6<sup>th</sup> 2003**



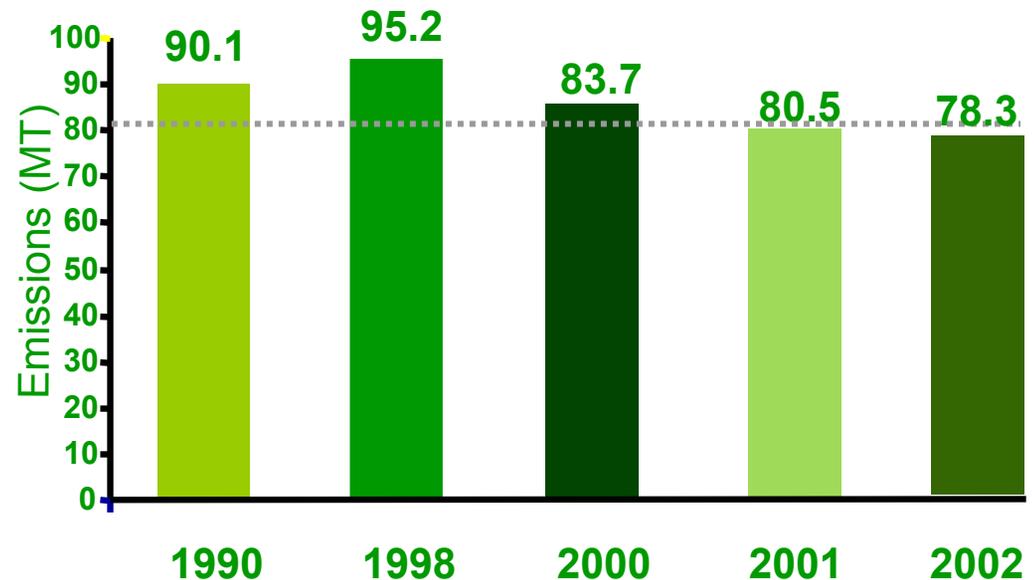
- **What we have achieved so far ....**
- **....our plans going forward**
- **Optimisation of our own operations**
- **Lower carbon Products**
- **Renewables**
- **Science & Understanding**
- **Working in partnership**

**through  
technology**

# What BP has achieved so far



- **Set target in '97**
- **Global internal GHG emissions trading system**
- **Engagement of 100,000 people**
- **Generated \$650m in value & growing**



**10% reduction below 1990 emissions verified in 2002**

# ...our new plans



....to contribute to stabilisation of CO<sub>2</sub> in the atmosphere

- **Our new goal** is to hold **net emissions flat** whilst continuing to grow the business by:
  - increased energy efficiency and continued reduction in emissions
  - emission reductions enabled by BP lower carbon products & renewables

# Optimisation of our own operations

## Energy Efficiency



### 3 Waves of Technology

1 - 2 Years	2 – 5 years	5-10 Years +
<b>Emerging Technology</b> <ul style="list-style-type: none"><li>• Power from Shore</li><li>• Advanced Controls</li></ul>	<b>Transform Performance</b> <ul style="list-style-type: none"><li>• Remote Operation</li><li>• All Electric Platform</li></ul>	<b>Transform Business</b> <ul style="list-style-type: none"><li>• Subsea Processing</li><li>• Full use of Process Energy</li></ul>

# Optimisation of our own operations

## CO2 Capture & Storage

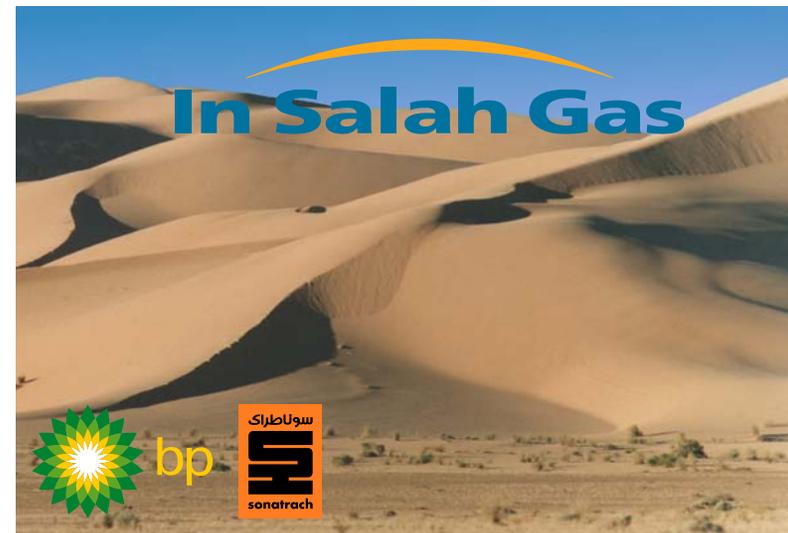


### Technology development

- CCP - CO2 Capture Project
- Princeton Carbon Mitigation Initiative
- Sleipner, Weyburn
- EOR applications
- ... opportunities to apply the technology
- Algeria 1Mt/year CO2 in gas reservoirs

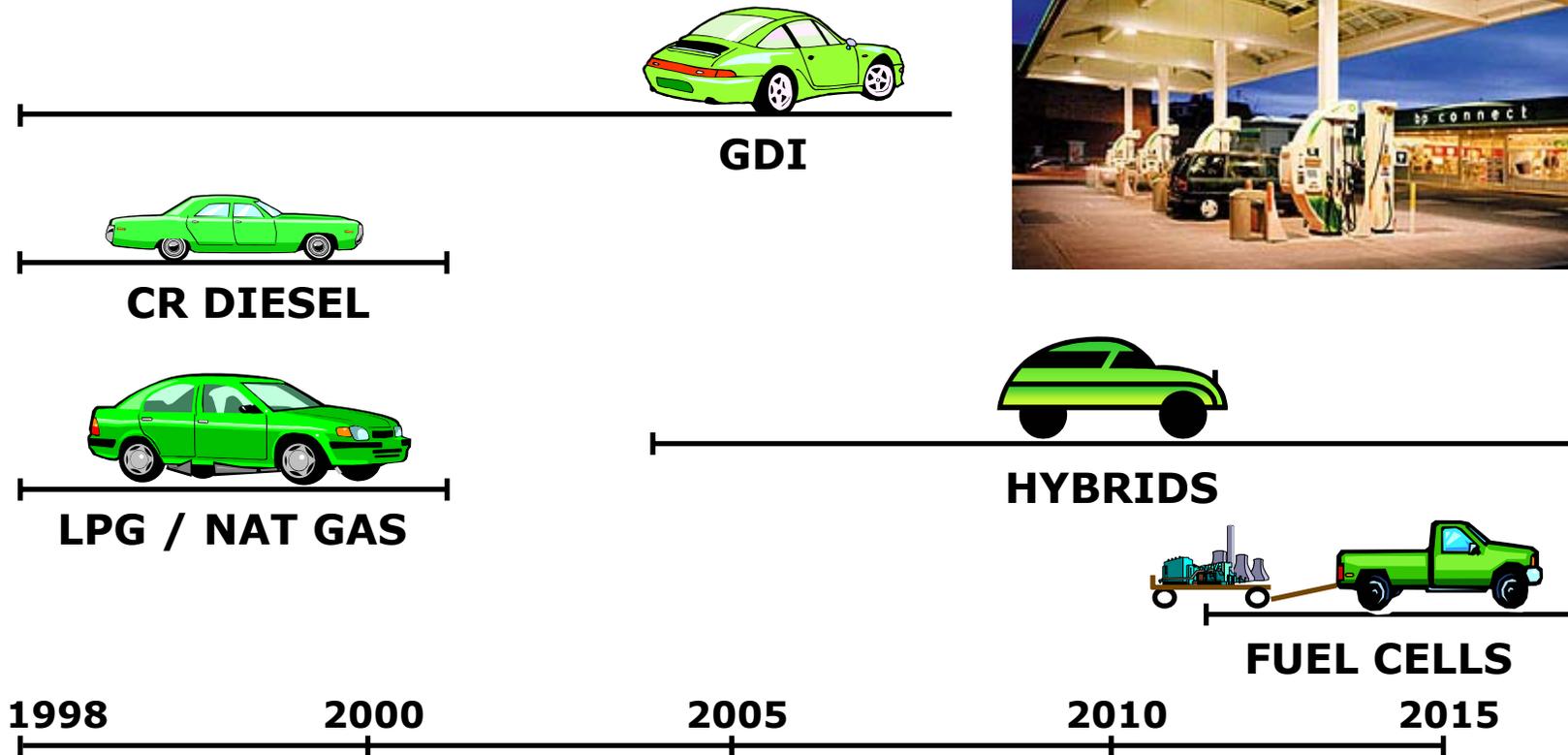


CO<sub>2</sub> Capture Project



# Lower carbon products

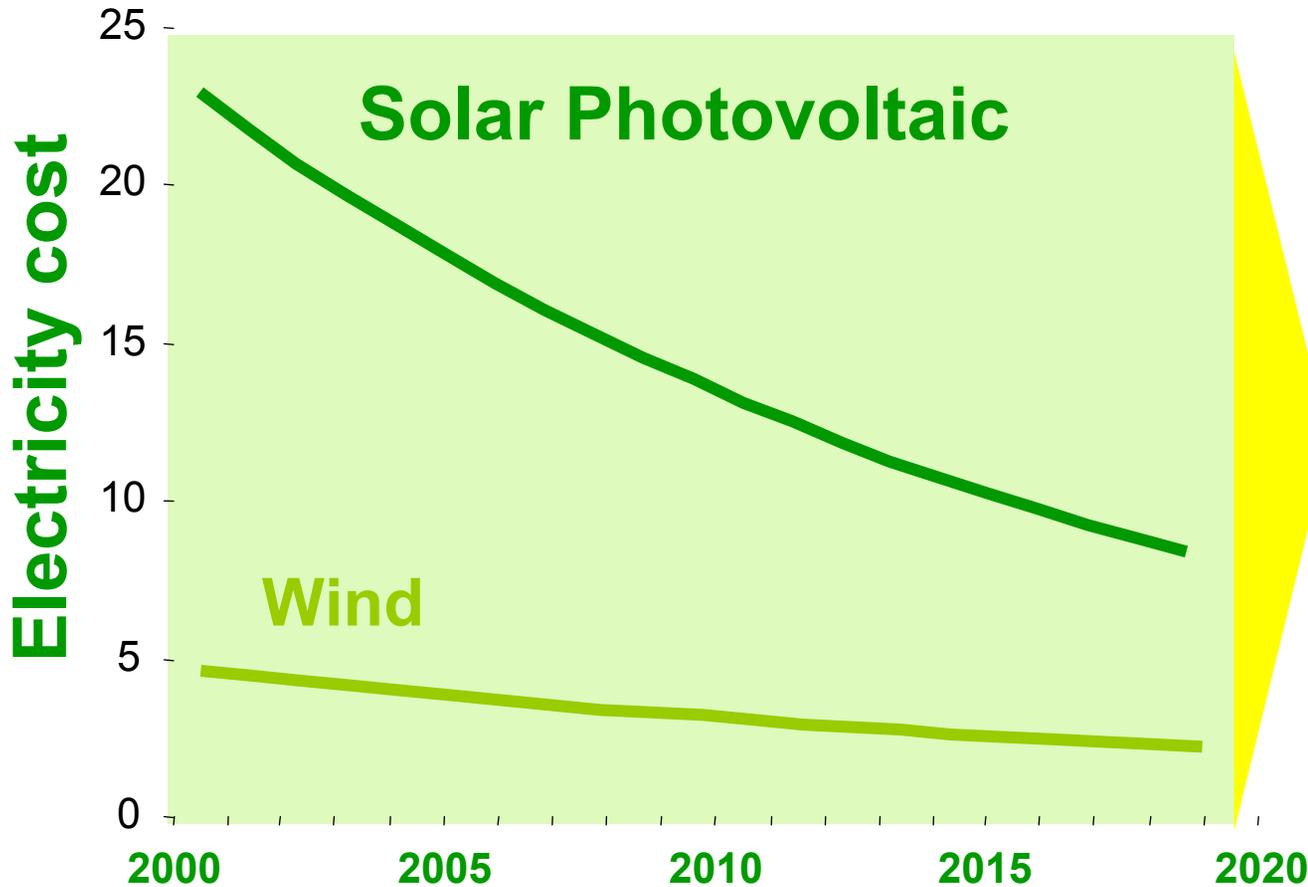
## Fuel Switching



Bar shows period of uptake



# Renewables



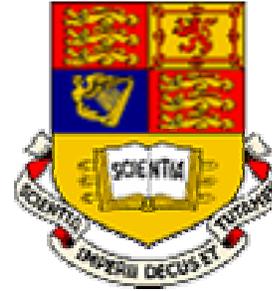
Solar – is now competitive for off-grid power and will compete for residential market within next decade

Wind could be economically viable in 5 years

# Science and Understanding



**CMI**  
**Princeton**



**Imperial College**  
**Collaboration**

- **CMI will focus on resolving the fundamental scientific, environmental, and technological issues that ultimately will determine public acceptance of carbon management strategies.**
- **IC Engineering for sustainable development funding a chair at IC on sustainable Energy in Buildings.**
- **IC Consultancy Collaboration Fund**

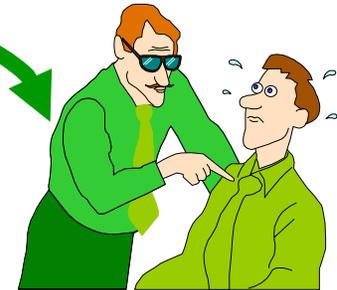
# Working in Partnership - Green Operations Network



What do others know ?



Ideas shared rapidly



New information is captured

What information do we already have?



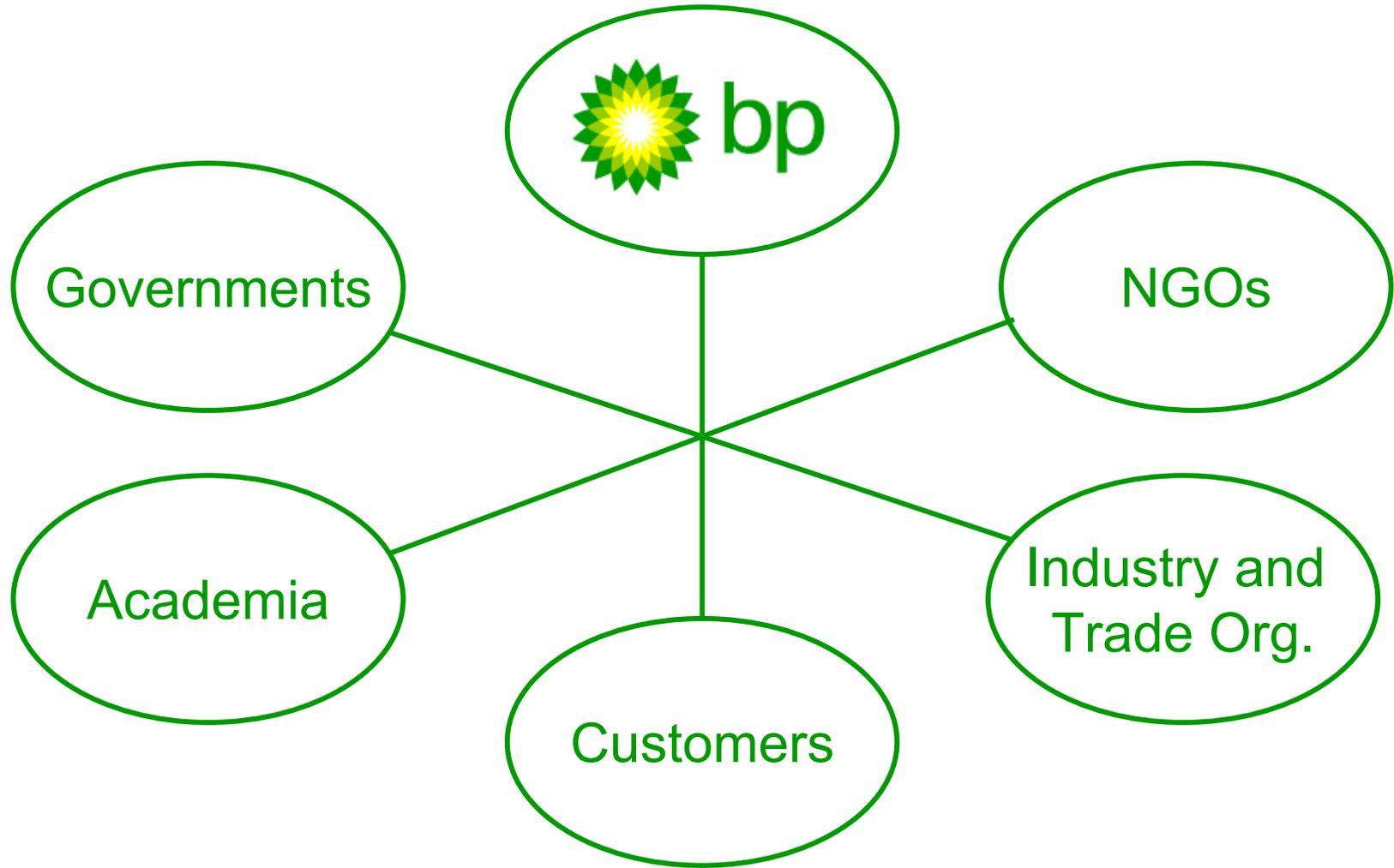
GO Knowledge Base:  
Website



New knowledge, available for all



# Working in Partnership - External Relationships



# ANY QUESTIONS ?



**For further information**

**BP Climate Change Website:**

[http://www.bp.com/key\\_issues/environmental/climate\\_change/index.asp](http://www.bp.com/key_issues/environmental/climate_change/index.asp)