

# Capital Markets Day Hydro Oil & Energy

Executive Vice President Tore Torvund  
Norsk Hydro ASA  
Oslo, January 8, 2002



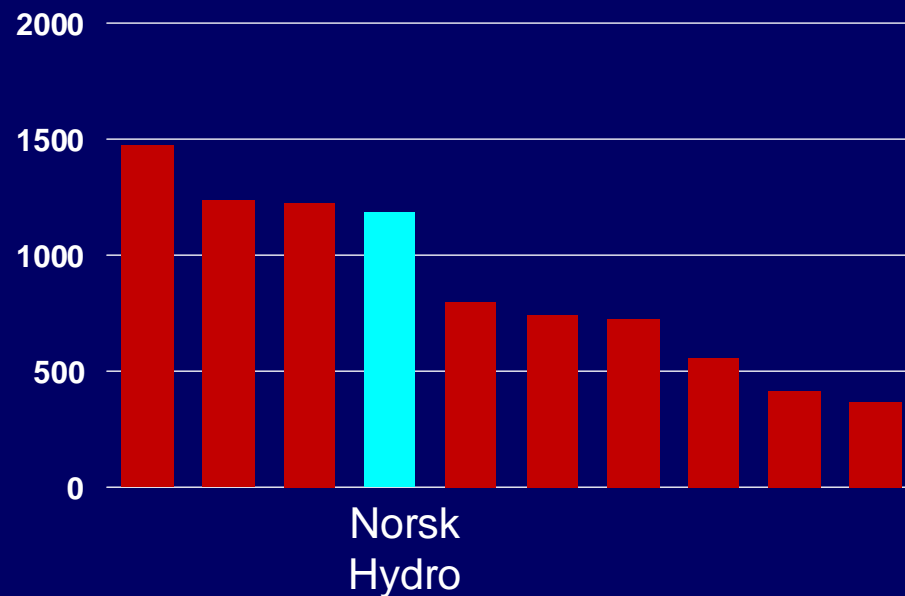


# Hydro Oil and Energy

## Competitive edge:

- Large operator
- Strong and innovative technology
- Commercial track record

## Offshore Operator production mill. barrels/day



Source: Oil & Gas Journal McKinsey



# Oil and Energy 2001 delivery

## Objectives CMD December 2000

## Actions taken

Production growth →

- Snorre B, Girassol and Terra Nova
- 2001 production in line with revised forecast
- 5-6% CAGR\* 2001 - 2005

International build up →

- 30% awarded in Angolan block 34
- Farm-in Gulf of Mexico and Angolan block 25

Positioning for liberalised  
European gas market →

- Implementation of company based sales from NCS
- Continued build up of commercial activities

Reduced F&D cost →

- New projects confirm direction

SDFI positioning →

- Application deadline 10. January

\* CAGR: Compound annual growth rate

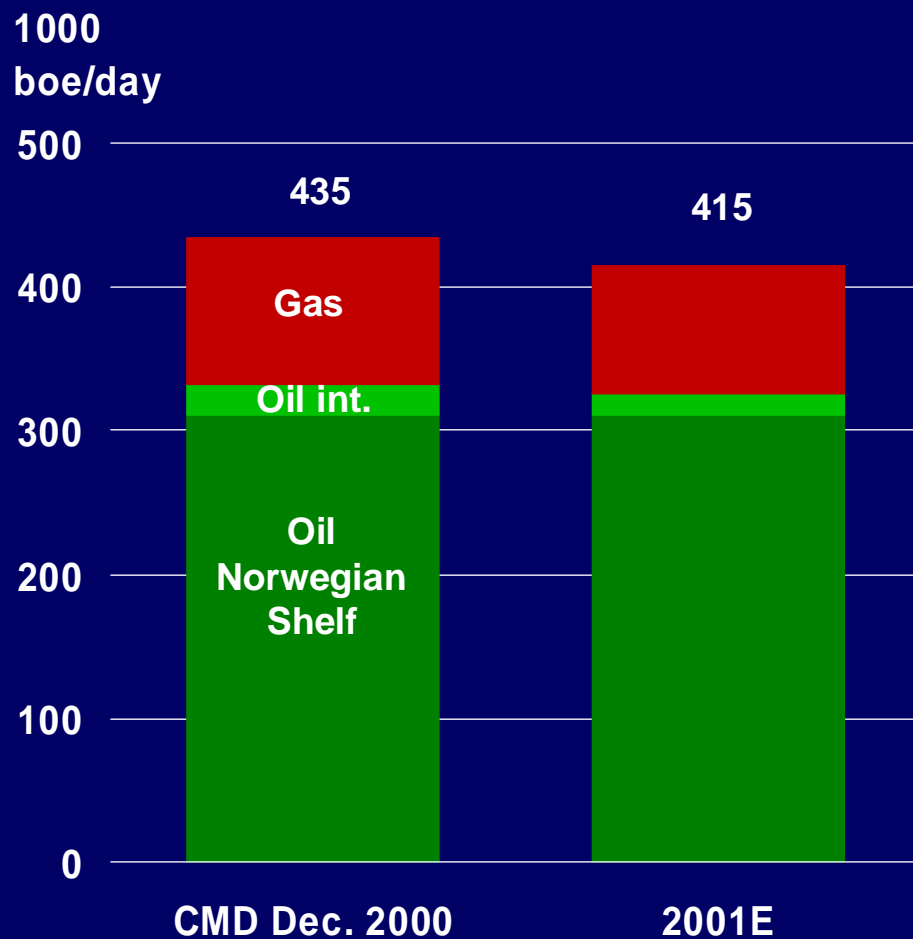


# Improving performance in 2001

- **Maintain positive safety trend**
- **Maintain operating performance in first quartile**
- **Delivering projects on cost and schedule**
- **High-grading of global exploration portfolio**
- **Divestment of non-core licences**
- **Capital discipline**



# Production 2001



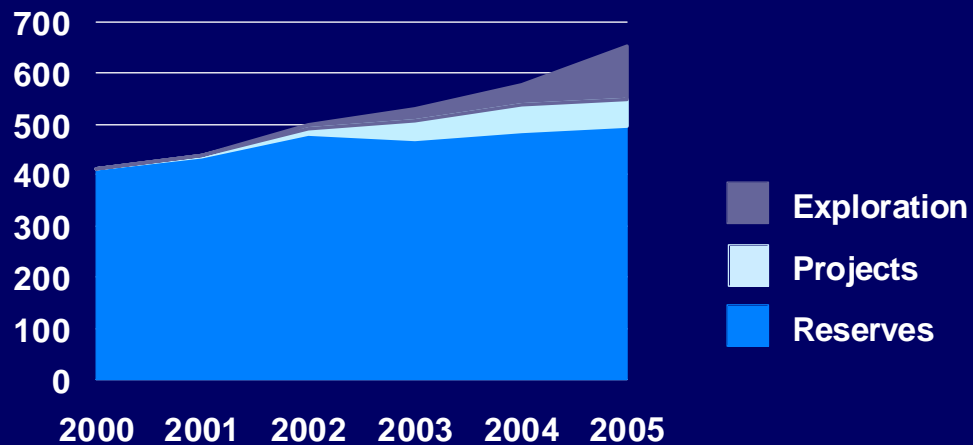
- NCS oil production in line with expectations
- Lower customer gas off-take
- Lower international oil production due to delayed start up new fields



# Growth within existing portfolio

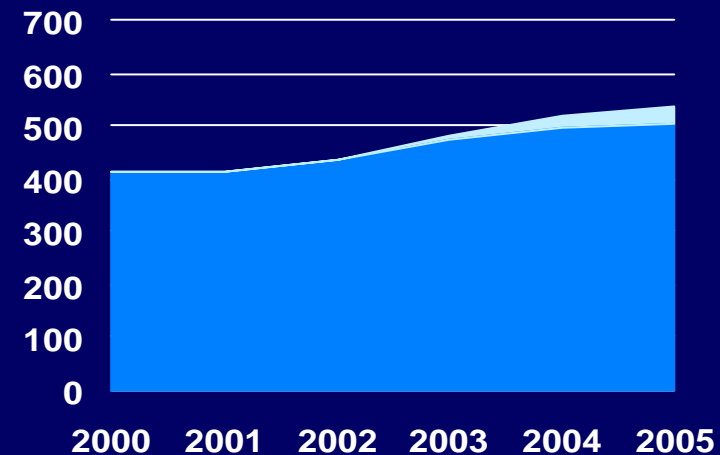
## Capital Markets Day December 2000

Production 1,000 boe/day



## Production Forecast January 2002

Production 1,000 boe/day

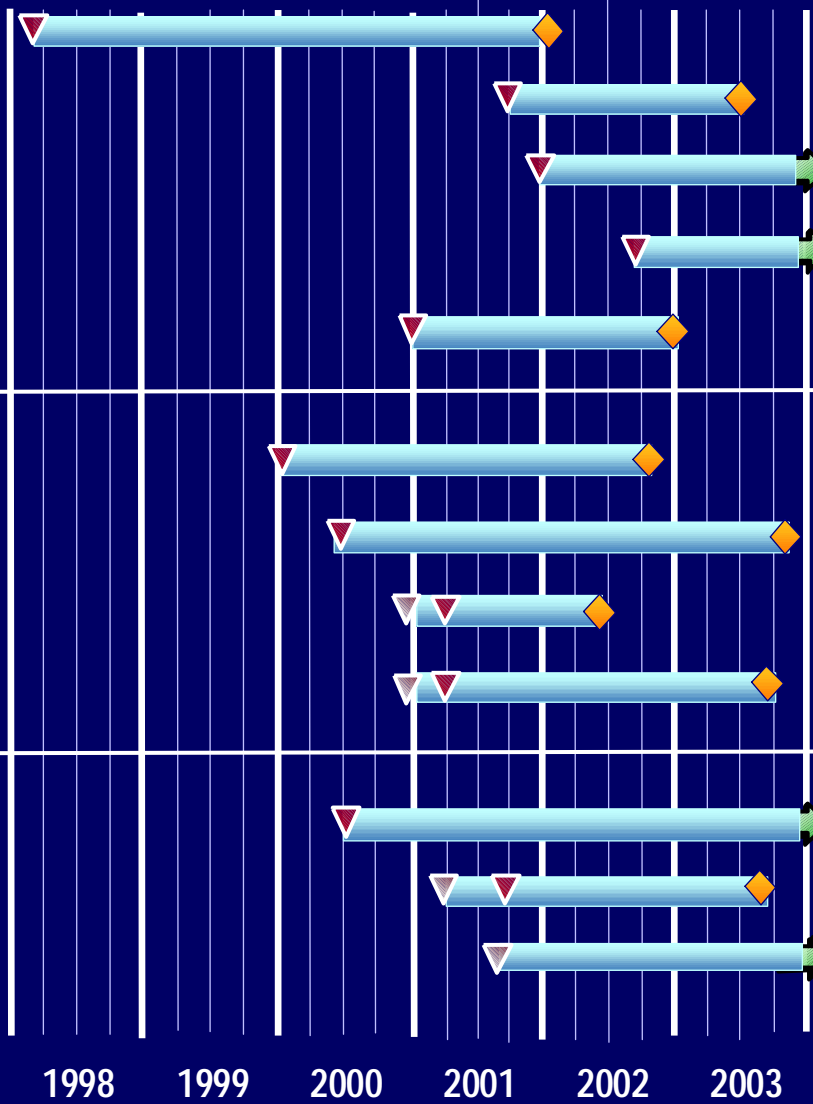




# New fields on stream 2002 - 2005

International activity  
NCS Operator  
NCS non operator

Terra Nova	20,000 boe/day
Jasmin	5,000
Dalia	20,000
Rosa/Lirio	8,000
Kharyaga 2	9,000 (phase 1-2)
<hr/>	
Tune	22,000
Grane	50,000
Vale	6,000
Fram Vest	15,000
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Kvitebjørn	25,000
Mikkel	5,000
Kristin	27,000



- Development
- ▷ PDO Submittal
- ▷ PDO Approval/  
Sanctioning
- ◆ Start Production

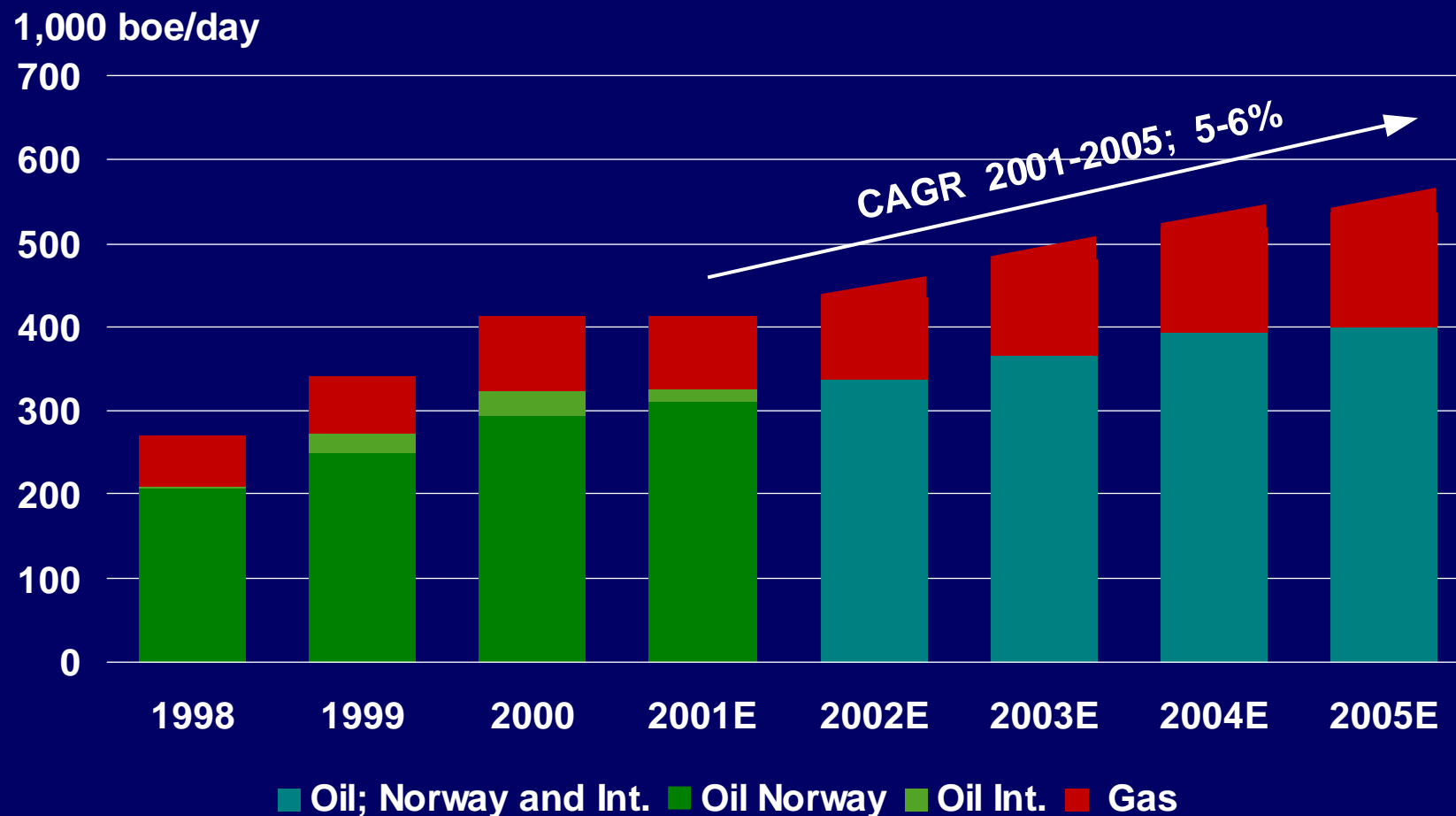
2005  
2005

2004  
2005

1998 1999 2000 2001 2002 2003



# Strong production growth



NCS production cut first half 2002 included

# Norsk Hydro — main events on NCS 2001



- Snorre B and Gullfaks satellites in production
- Vesterled gas pipeline in operation
- Snøhvit, Kristin and Mikkel development plans submitted
- Satellite discoveries around Oseberg and Snorre
- Non core acreage sold
- SDFI: Hydro priority to strengthen key operated fields

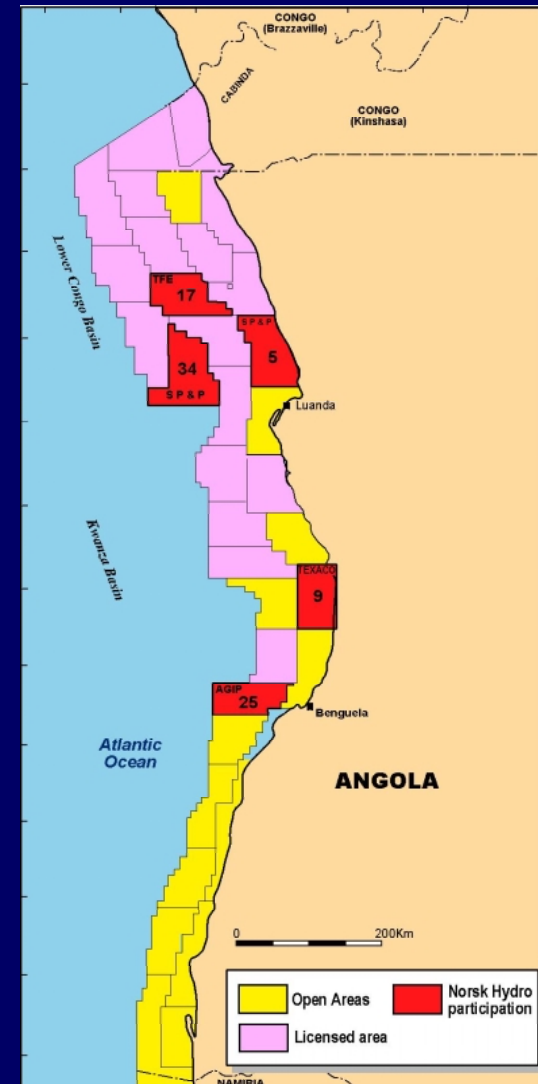


# International activities — 2001 main events



# Angola — an area of significant growth

- **Girassol start up December 2001**
- **Another two finds in Block 17 declared commercial**
- **Award of Block 34 - 30% equity**
  - Co-operation with Sonangol, Hydro technical assistant
  - Application of NCS experience
- **Block 25 farm in - 10% equity**



# Canada — further developments

- **Hibernia - stable production**
- **Terra Nova - on stream January 2002**
- **New find in Terra Nova Far East**
- **Hebron - on schedule for concept selection 2002**
- **Successful deep water acreage bid - Scotian Shelf**

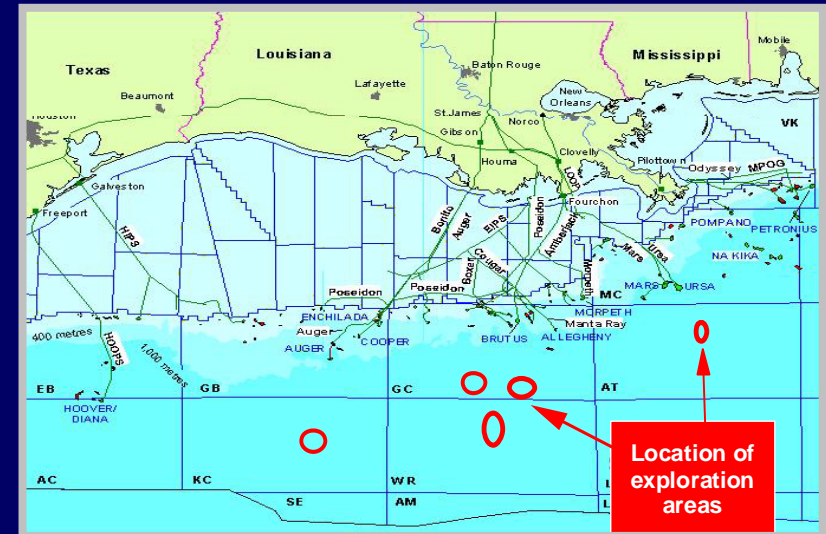


# US — Gulf of Mexico

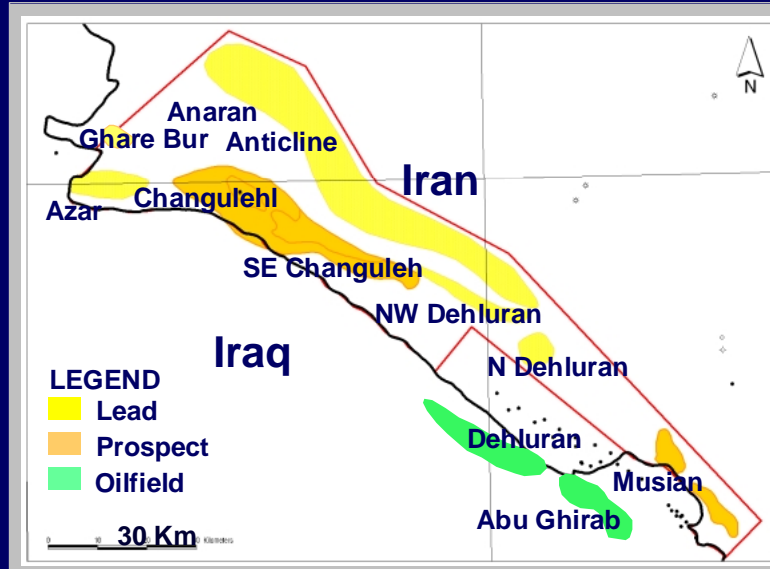
## Potential new core area



- **Comprehensive farm-in deal with Conoco**
  - Hydro 25% working interest in 55 leases
  - Option for participation in 178 leases through 2005
  
- **Evaluation of further joint business development activities**



# Iran — Anaran Exploration Contract



- Exploration area of 3 260 km<sup>2</sup>
- Mine clearance & seismic acquisition in 2001 and 2002
- First well expected Q3 2002

**Exploration contract signed  
between NIOC and Hydro  
April 9th 2000**

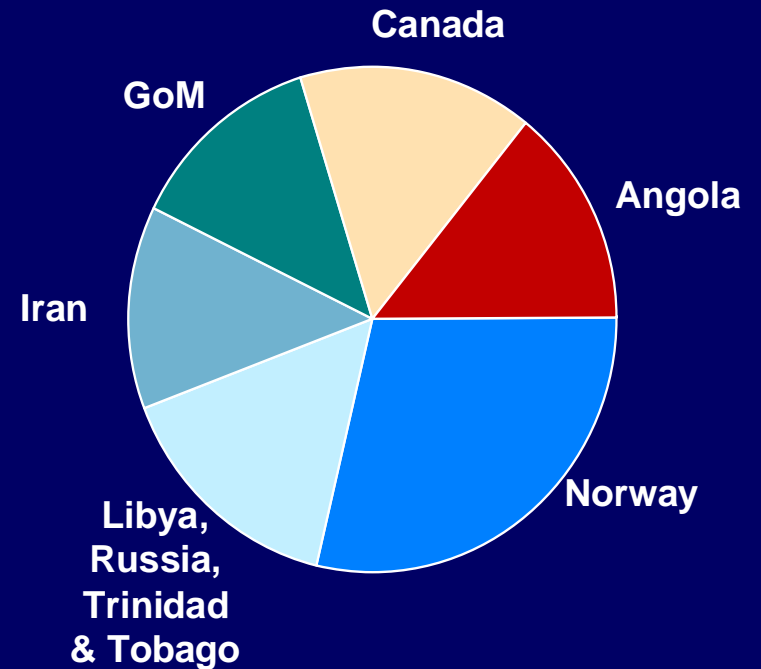




# 2002 — shift in exploration focus



Exploration - 2002E





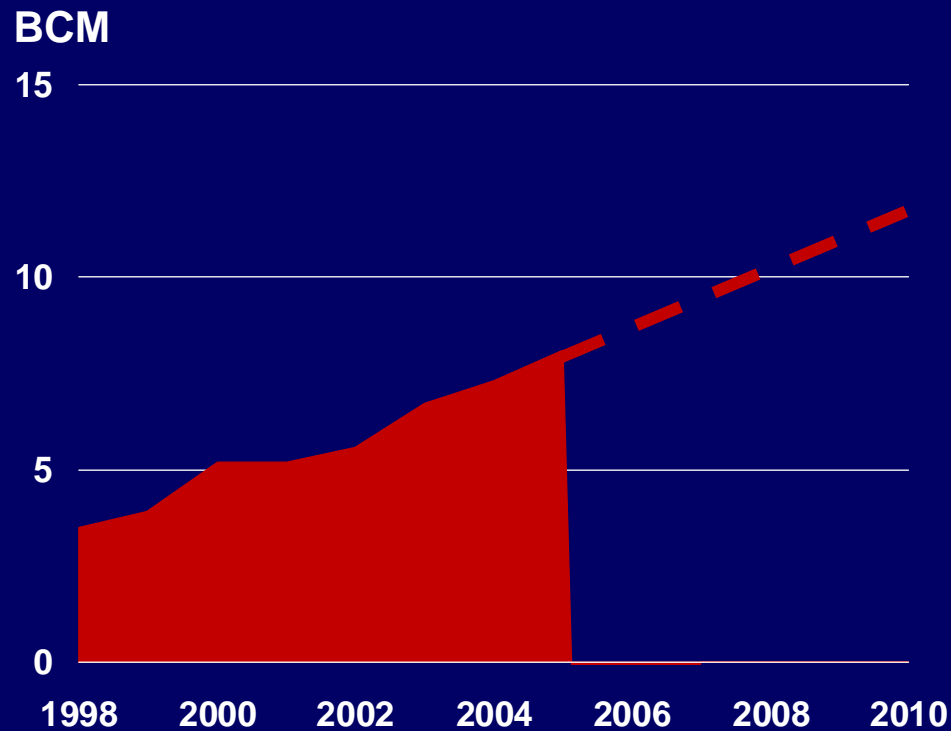
# Exploration 2002 — significant wells

Location	Norsk Hydro share	Well expec. finalised
NCS Solsikke	50%	3Q 2002
Canada - Anapolis	25%	1Q 2002
Canada - Flemish pass	30%	3Q 2002
Trinidad Tobago - Catfish	19%	1Q 2002
Angola Block 34	30%	3Q 2002
GoM - 3 wells	25%	2002
Iran - Anaran	100%	3Q 2002



# Third largest gas producer on the NCS

## Norsk Hydro expected natural gas production

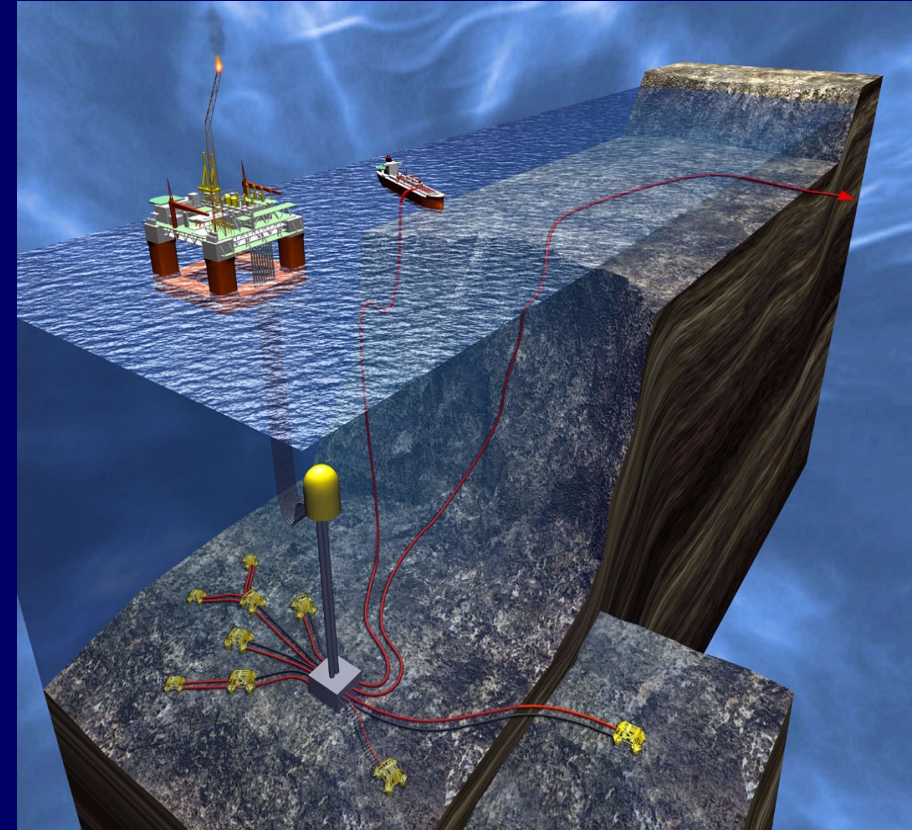


- Total Norwegian gas export 2010 approx. 110 BCM
- Company based sales introduced
- Market development
  - Continental market driven by gas to power needs
  - UK - need for imports
  - New markets; Scandinavia and Poland

# Ormen Lange — the most important gas discovery since Troll



- Reserves: 400 bcm
- Hydro operator for the most challenging development on NCS
- Market gas at competitive costs; Target; 2 USD/mill. BTU
- Plan for development 4Q 2003
- Production start 2007

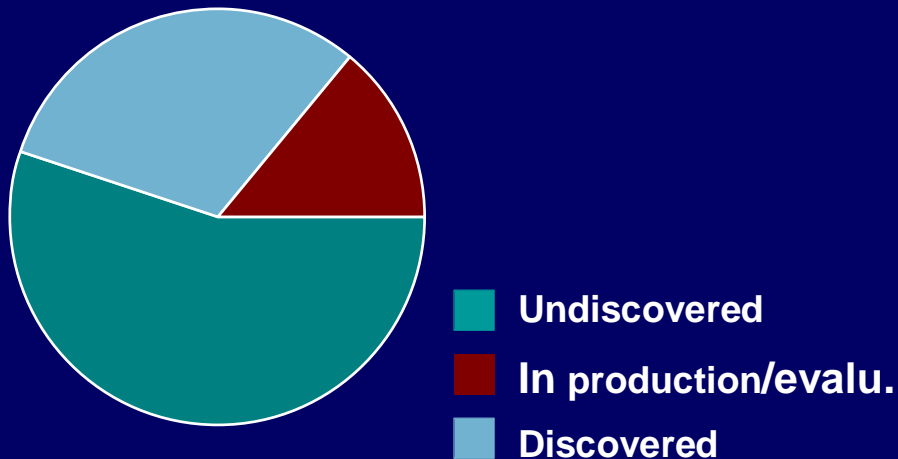


# Still large undiscovered gas resources on the Norwegian Shelf



- **17th round application deadline in March**
  - **Focus on gas offshore mid-Norway**

**Halten, Møre and Vøring**  
**Total of 2200 bill Sm<sup>3</sup> gas**

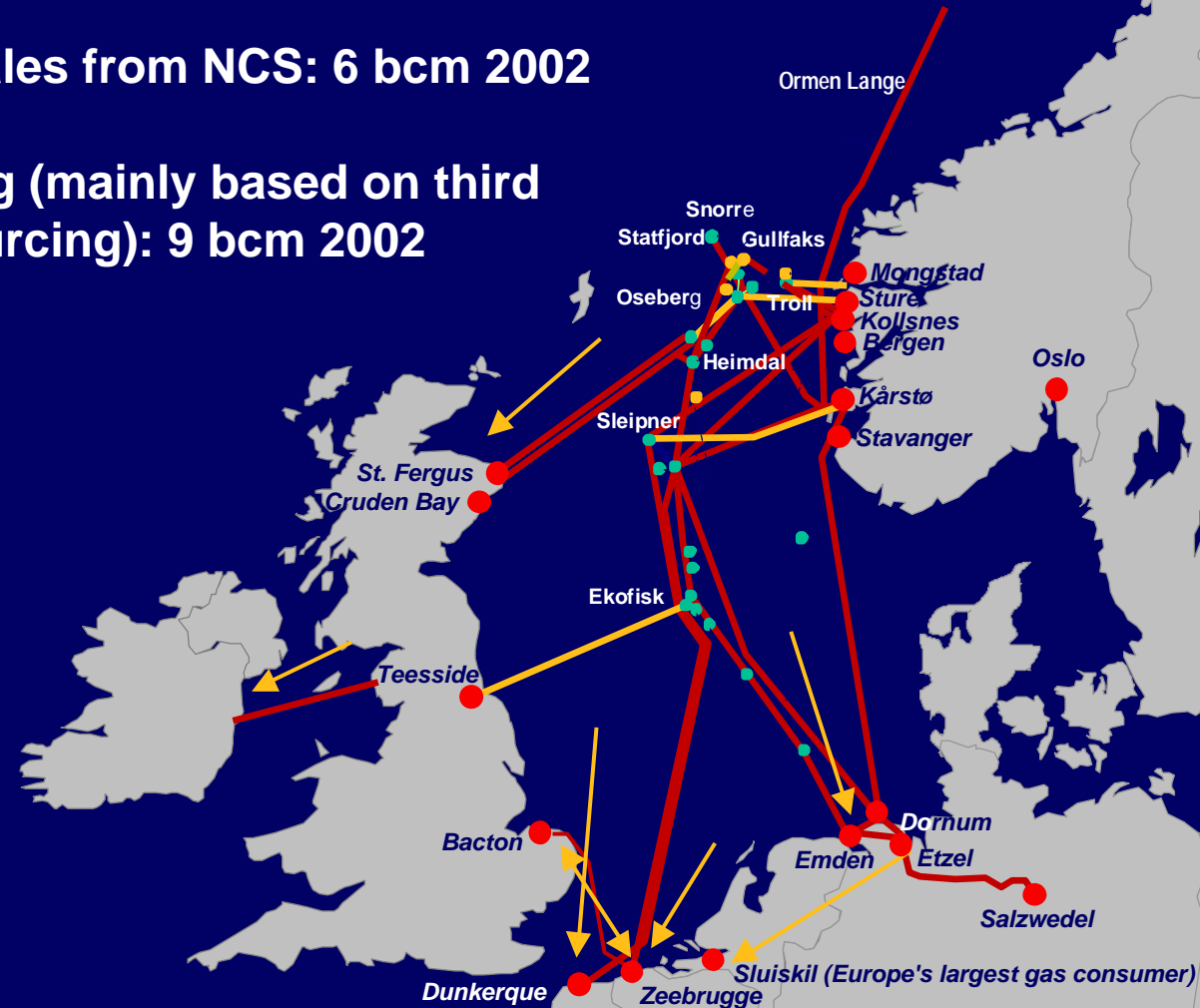


*Source: NPD, expected volume*



# Flexibility gives value creation

- Equity sales from NCS: 6 bcm 2002
- Marketing (mainly based on third party sourcing): 9 bcm 2002



# Norsk Hydro has the ability to commercialise gas in a liberalising market



## Targeted Dutch end user sales in 2002:

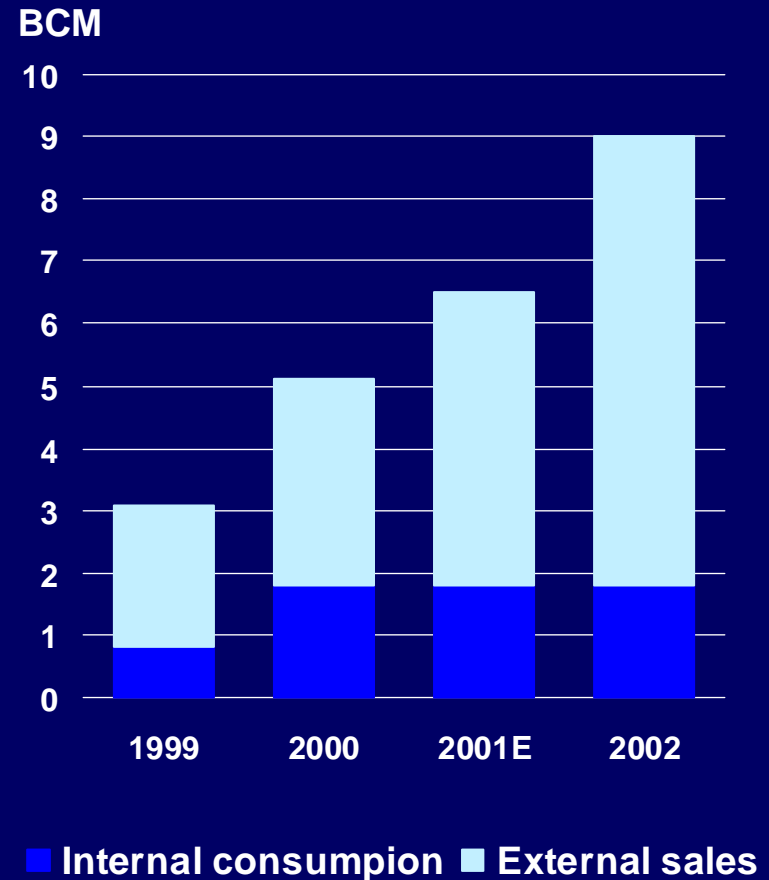
- 300 end-users
- 4.7 bill. sm<sup>3</sup> (incl. portfolio management)
- Approx. 20% of Dutch industrial market

**Hydro Sluiskil - Europe's largest consumer of natural gas**



# Commercial innovation

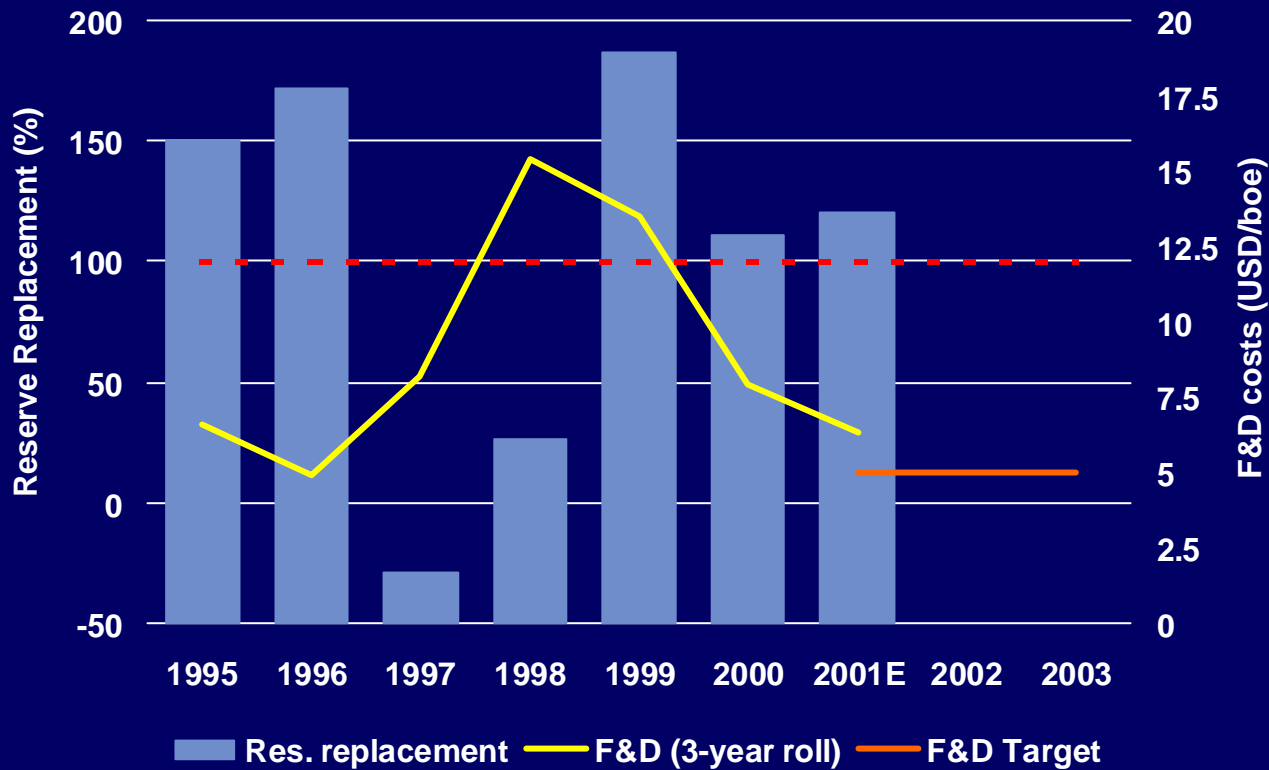
- **Norsk Hydro natural gas sales mainly based on third party sourcing**
- **Low capital requirement**
  - Trading
  - Good margins: EBITDA of 100 MNOK 1- 3Q 2001
- **Customers**
  - Industrial customers
  - Internal consumption
- **Operations based in Brussels**





# F&D costs tracking down towards target

F&D costs excl. sale & purchase



Year	Fields assumed booked
2001	Kristin, Mikkel, Sigyn, Rosa Lirio, Jasmin
2002	Snøhvit, Hebron, Murzuk A, Mabruk East
2003	Ormen Lange, Tyrihans, Kharyaga ph. 3



# Key messages

- **Production growth 2001 - 2005 expected to average 5 - 6%**
- **Key exploration prospects to be tested in 2002**
- **Using commercial innovation to add value to Norsk Hydro's upstream gas position**
- **F&D costs on track towards USD 5/bbl**



# Safe harbour statement

**In order to utilize the "Safe Harbor" provisions of the United States Private Securities Litigation Reform Act of 1995, Hydro is providing the following cautionary statement: This presentation contains certain forward-looking statements with respect to the financial condition, results of operations and business of the Company and certain of the plans and objectives of the Company with respect to these items. By the nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. The actual results and developments may differ materially from those expressed or implied in the forward-looking statements due to any number of different factors. These factors include, but are not limited to, changes in costs and prices, changes in economic conditions, and changes in demand for the Company's products. Additional information, including information on factors which may affect Hydro's business, is contained in the Company's 2000 Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission.**