

*UKOOA/DTI Industry activity survey 2002*

*Presentation to EAG 11<sup>th</sup> November 2002*

*Ray Hall-EAG*

*11<sup>th</sup> November 2002*

# UKOOA 2002 Survey- Context

*UKOOA Activity survey 2002*

- ✓ In August 2002 a joint DTI/UKOOA survey was launched to gather data on all identified projects across the UKCS.
  - Identifies all projects in Operators portfolio ranging from fields in production to Possible developments.
  - Copies of all data send to DTI
  - Prof Alex Kemp engaged to aggregate data.
  - **Exploration & Appraisal activity excluded**
- ✓ Data presented on Risked basis
  - Probable & Possible Projects slipped according to probability

<u><i>Probability</i></u>	<u><i>Years delay</i></u>
<i>below 20%</i>	<i>4</i>
<i>20% to 39%</i>	<i>3</i>
<i>40%-59%</i>	<i>2</i>
<i>60% to 79%</i>	<i>1</i>
<i>above 80% (no delay)</i>	<i>0</i>

*11<sup>th</sup> November 2002*

# Project distribution

<b>Number of fields/projects</b>			
	<b>Oct 2002 Survey</b>	<b>Oct 2001 Survey</b>	<b>Sept 2000 Survey</b>
<b>Sanctioned</b>	260	248	257
<b>Incremental</b>	144	96	97
<b>Probable</b>	51	64	65
<b>Possible</b>	33	84	56
<b>Total</b>	<b>488</b>	<b>492</b>	<b>475</b>

*Fewer Probable & Possible projects but  
more projects in mature fields*

# Exploration success

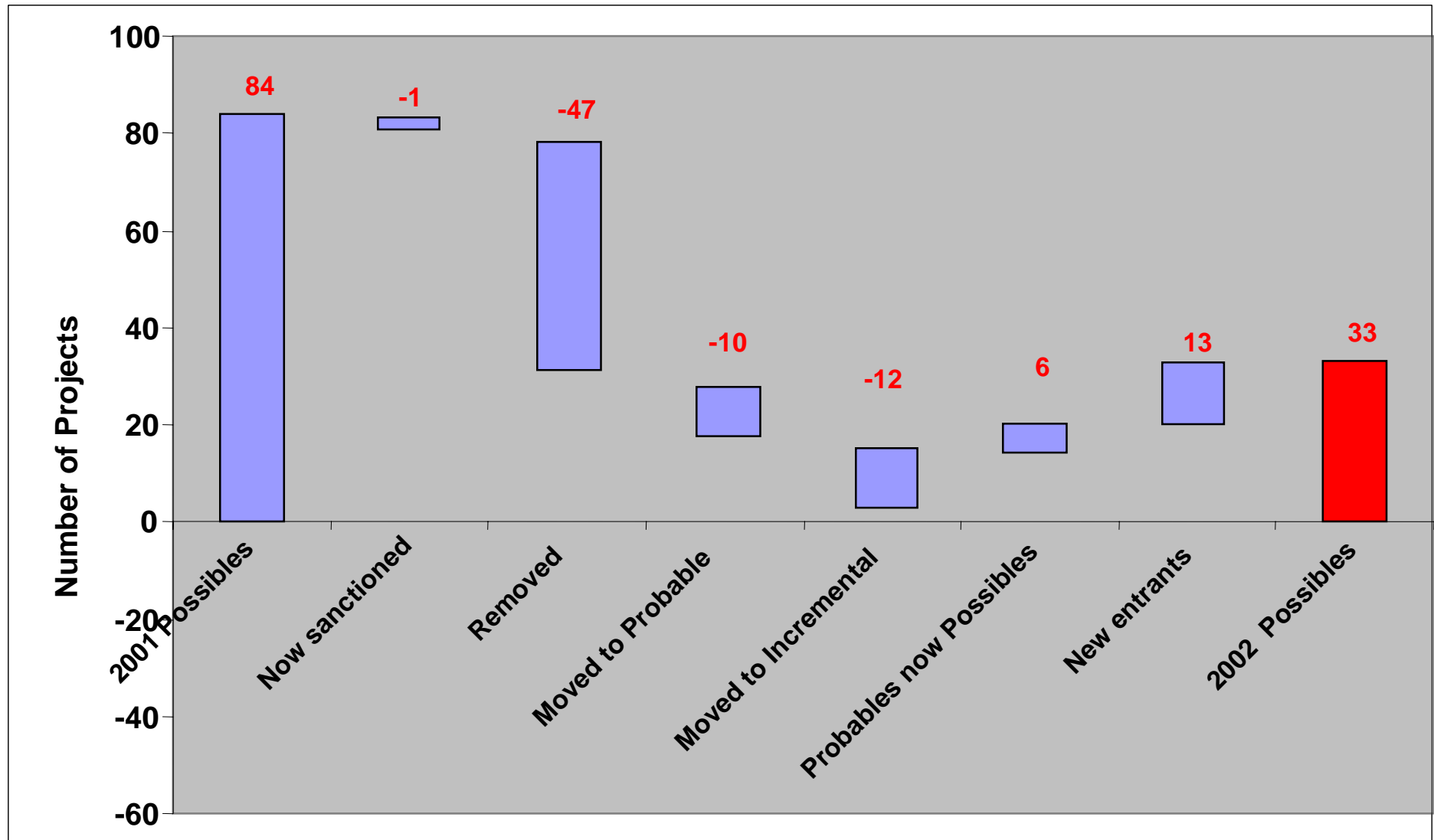
---

*UKOOA Activity survey 2002*

- ✓ Impact of new exploration success since last survey
- ✓ Three new fields
  - Represent 46 mmboe
    - ◆ Of this 23 mmboe is oil

*11<sup>th</sup> November 2002*

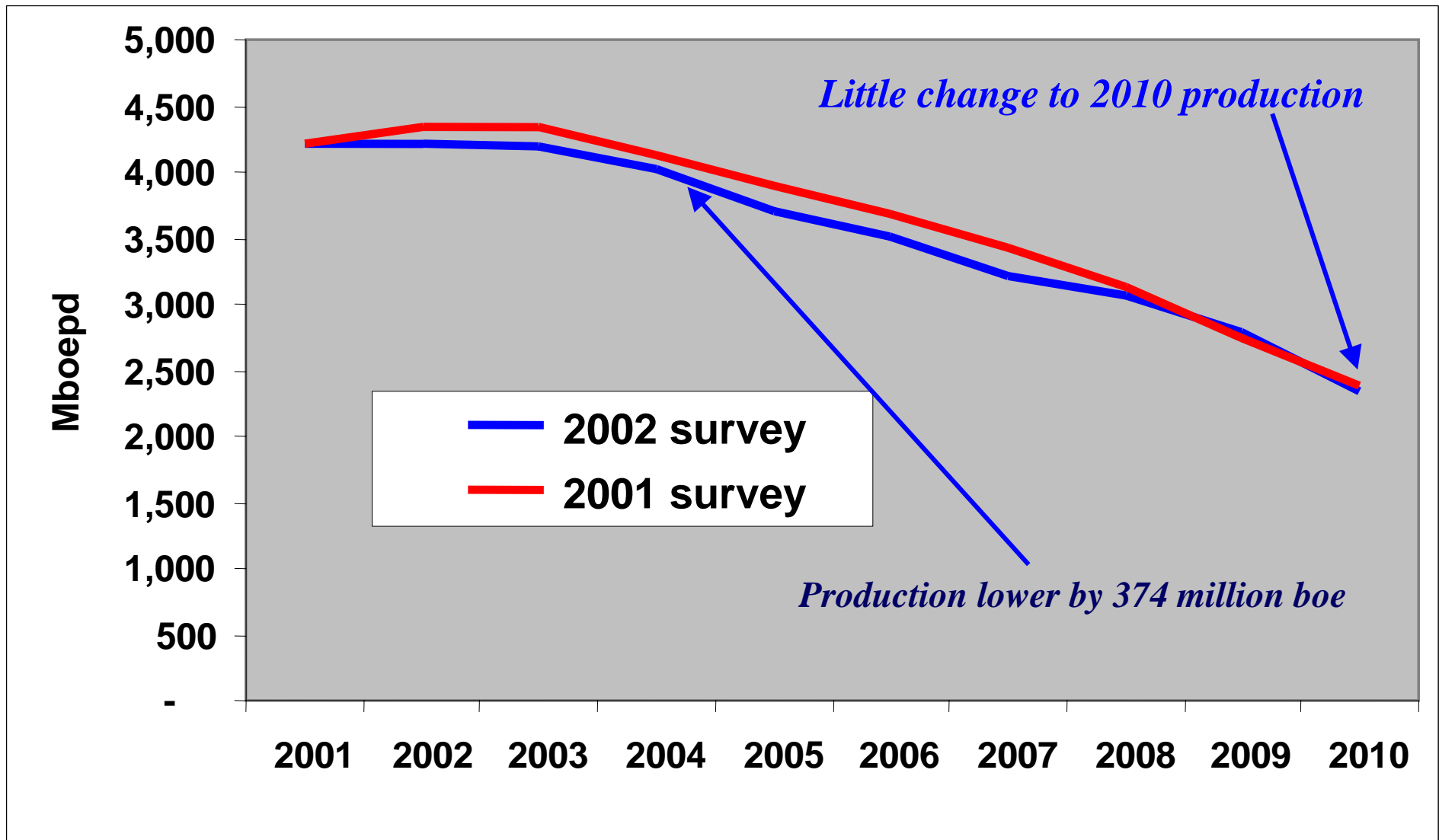
# Changes to Possible project portfolio



# Production

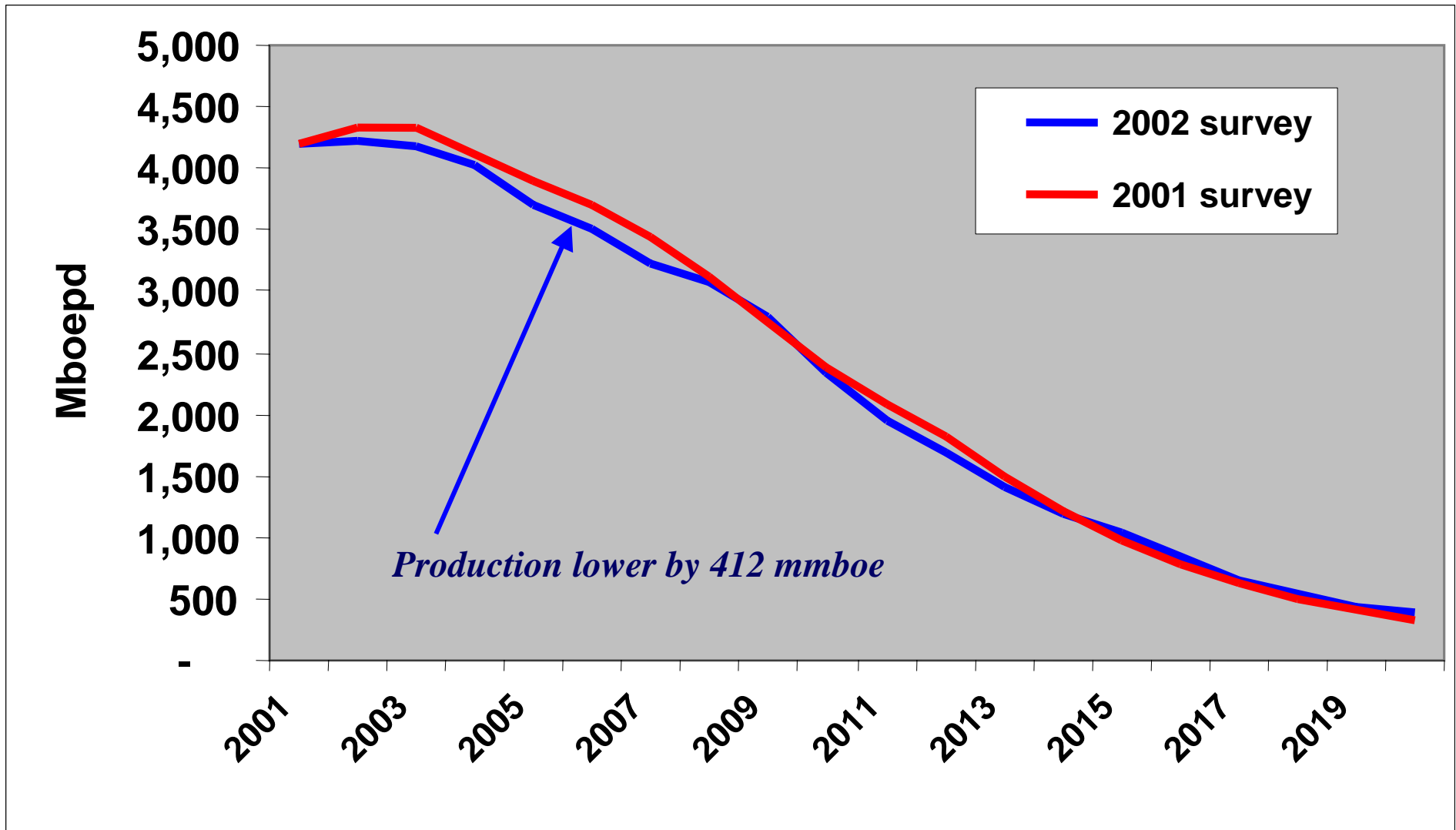
# Oil & gas production forecast

UKOOA Activity survey 2002



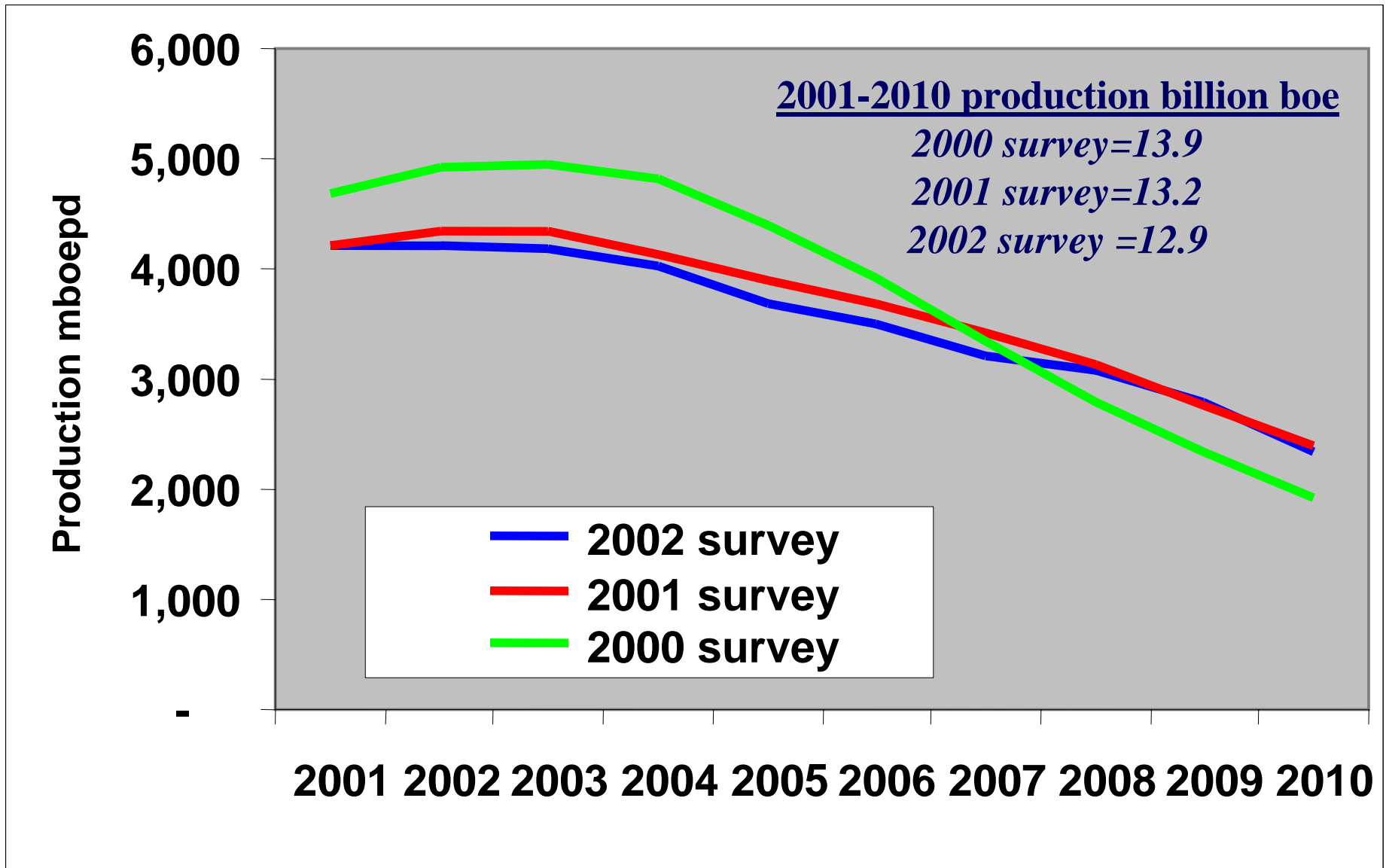
11<sup>th</sup> November 2002

# UKCS production to 2020



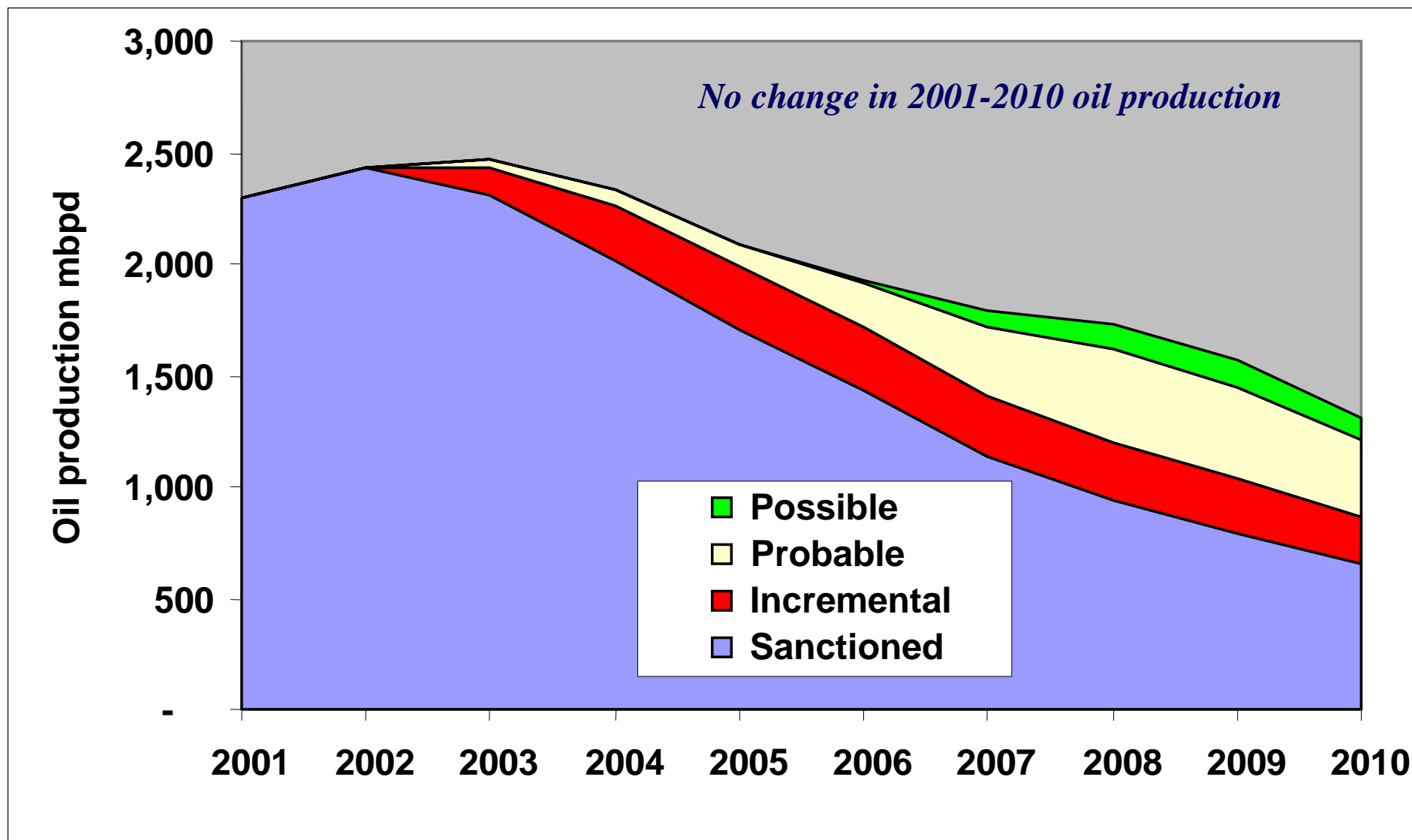
# Significant production fall since year 2000

UKOOA Activity survey 2002

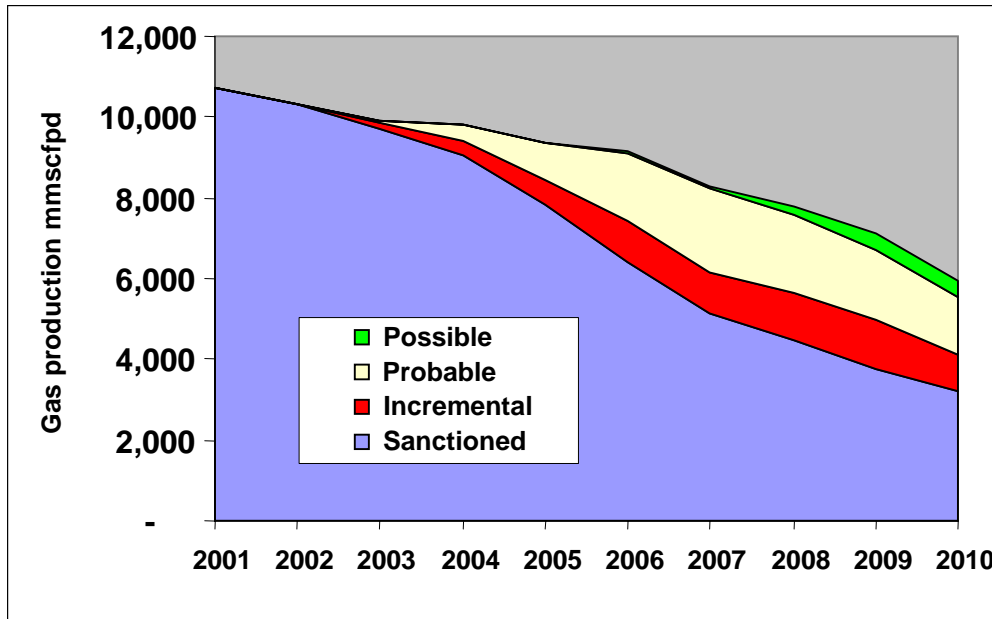


11<sup>th</sup> November 2002

# Oil production

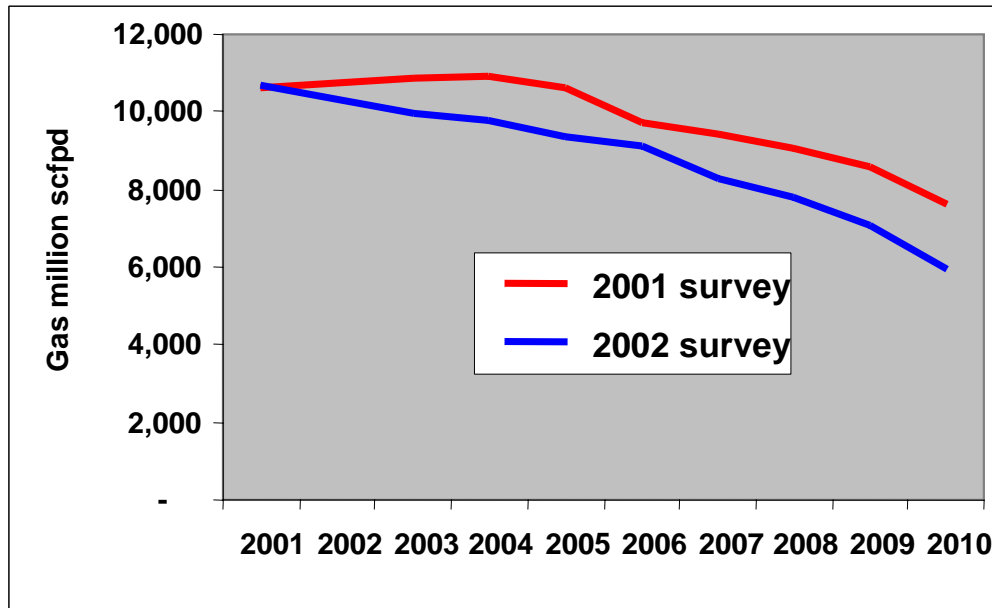


# Gas production



✓ Significant fall compared to 2001 survey

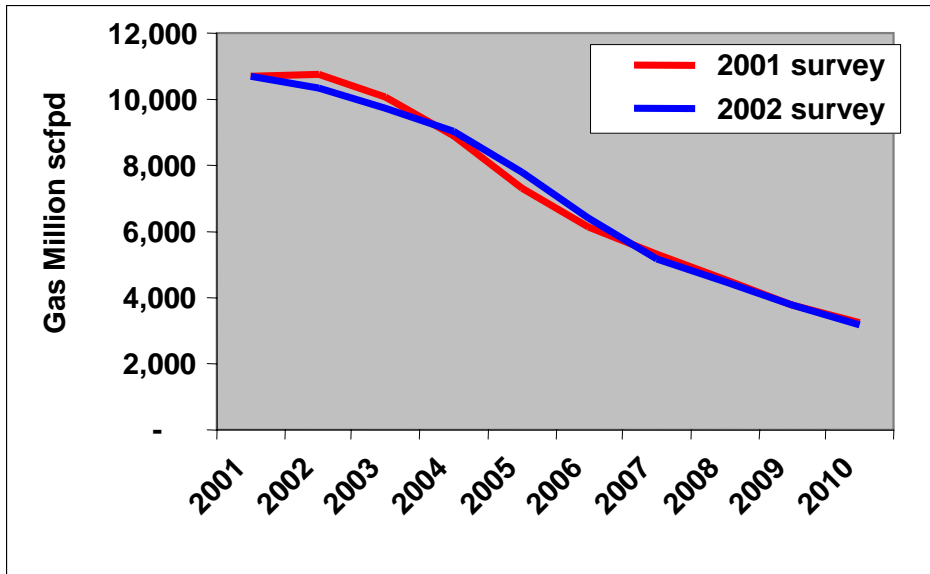
✓ 2002-10 production lower by some 2.2 TCF



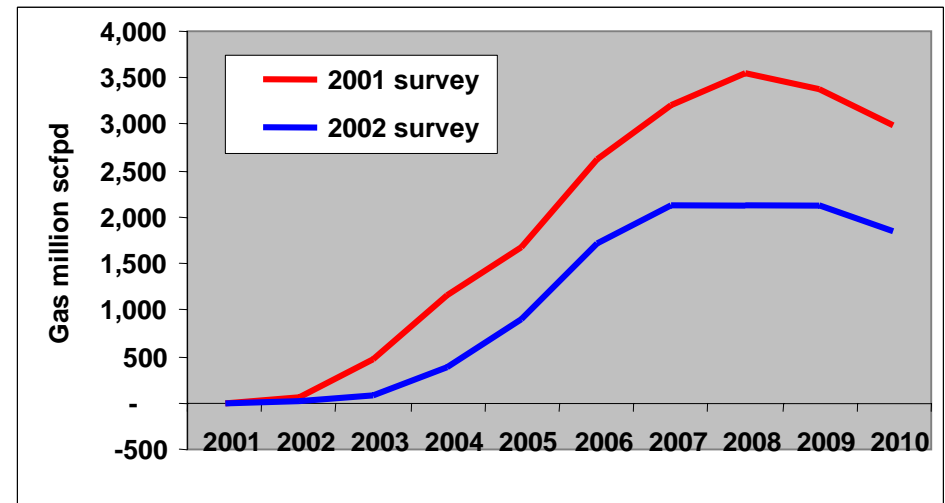
# Gas production changes 2001 to 2002

UKOOA Activity survey 2002

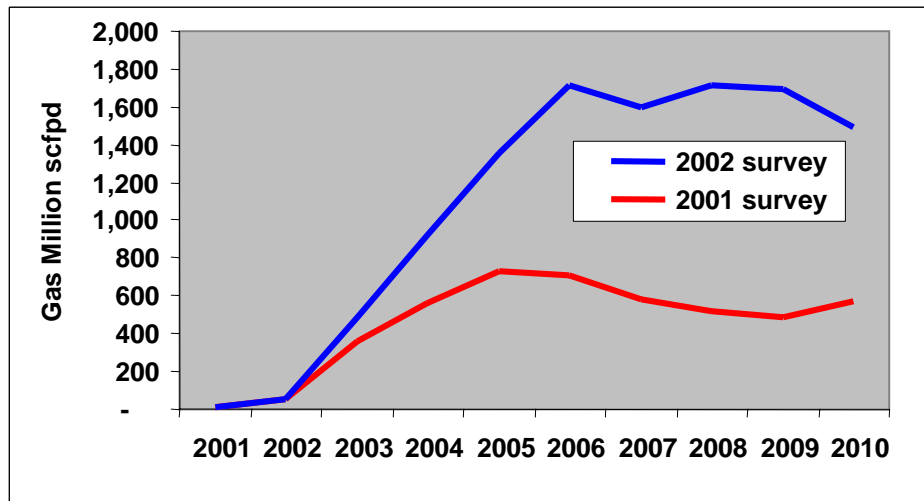
## Sanctioned



## Probable & Possible

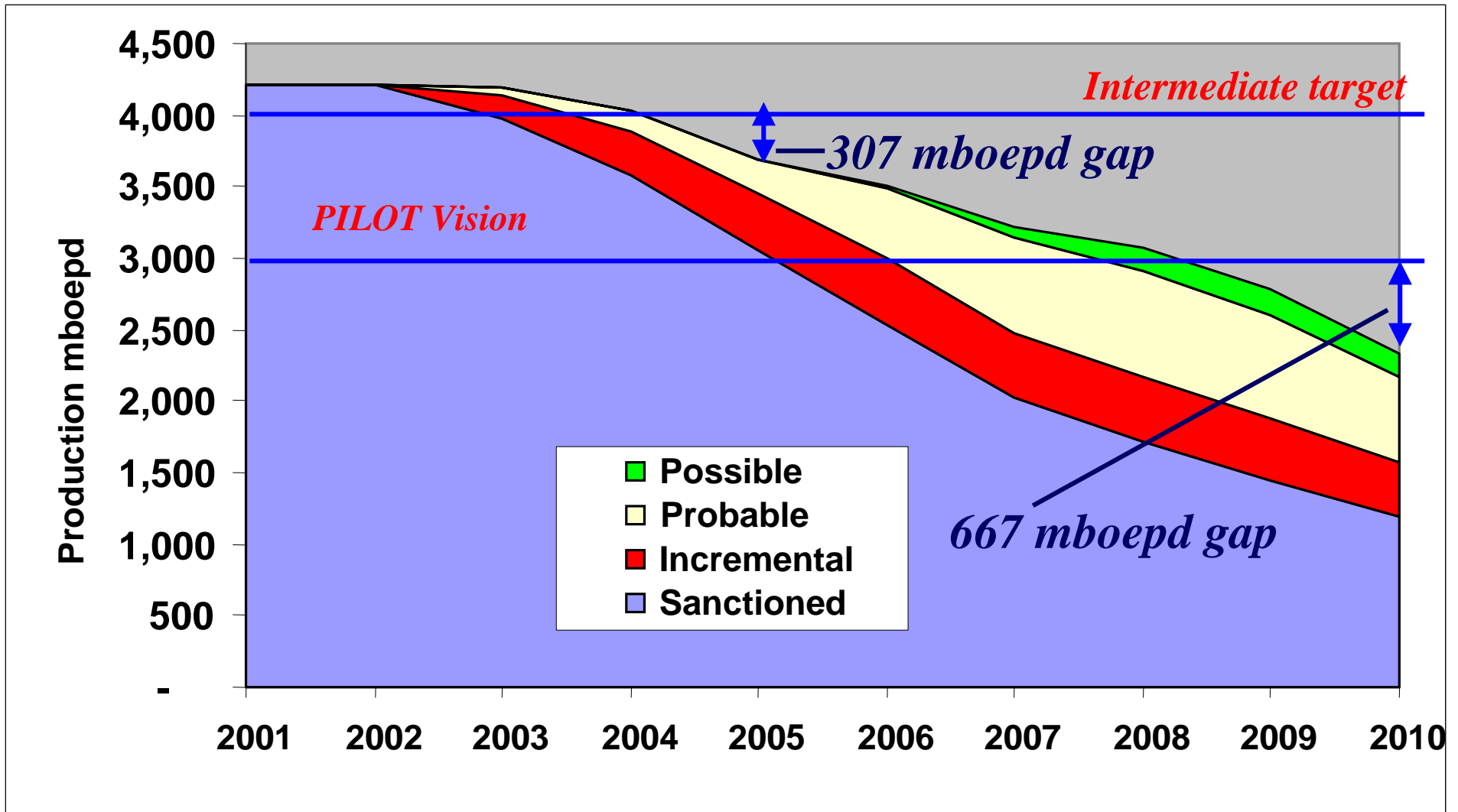


## Incremental



11<sup>th</sup> November 2002

# Oil & Gas Production- elements



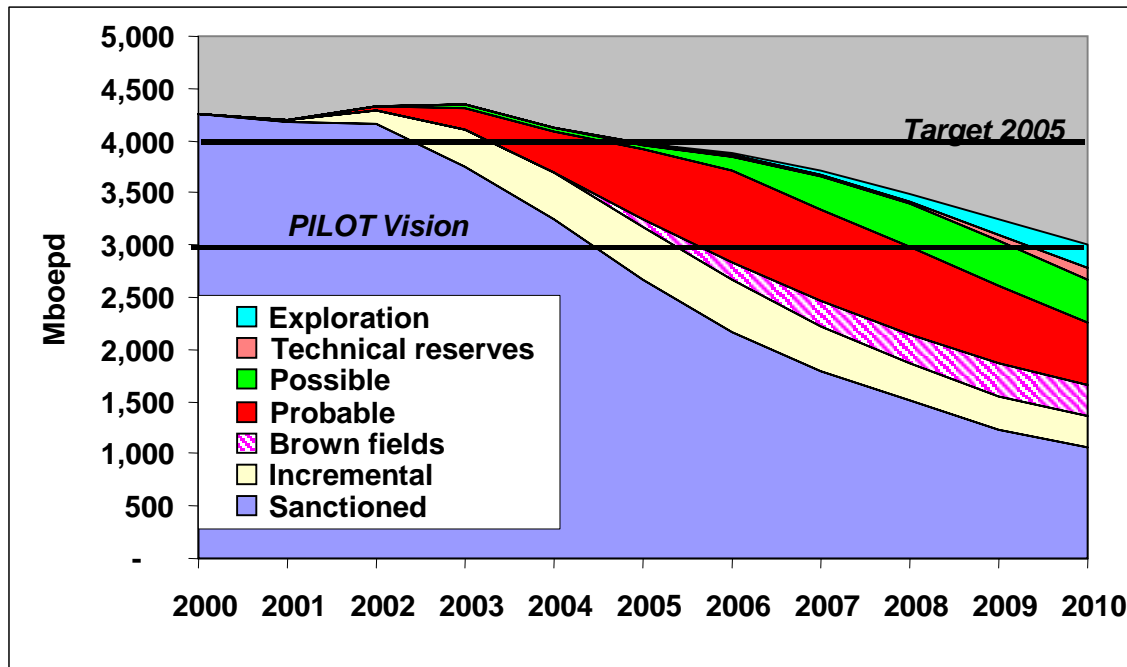
**Missing elements:**

- Exploration
- Undeveloped discoveries
- Brown fields

# Reference- PILOT Vision assessment March 2002

## EAG Central case projection

EAG presentation to PILOT



✓ Gap to Vision made up from

➤ Exploration,

➤ Brown fields

➤ Technical reserves

✓ Now more difficult

➤ Low Exploration

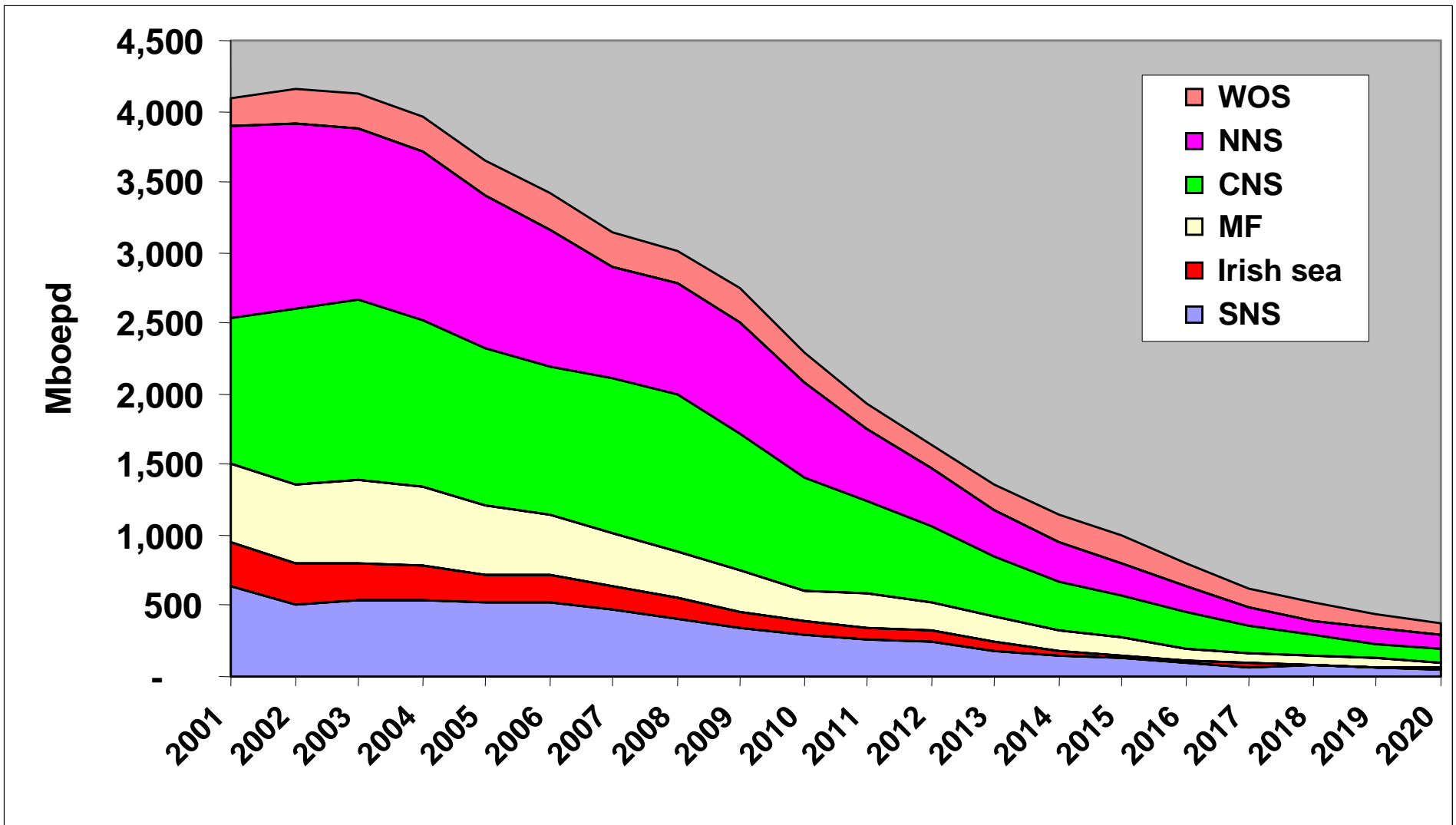
➤ Fewer new projects

✓ More reliant on Brown fields

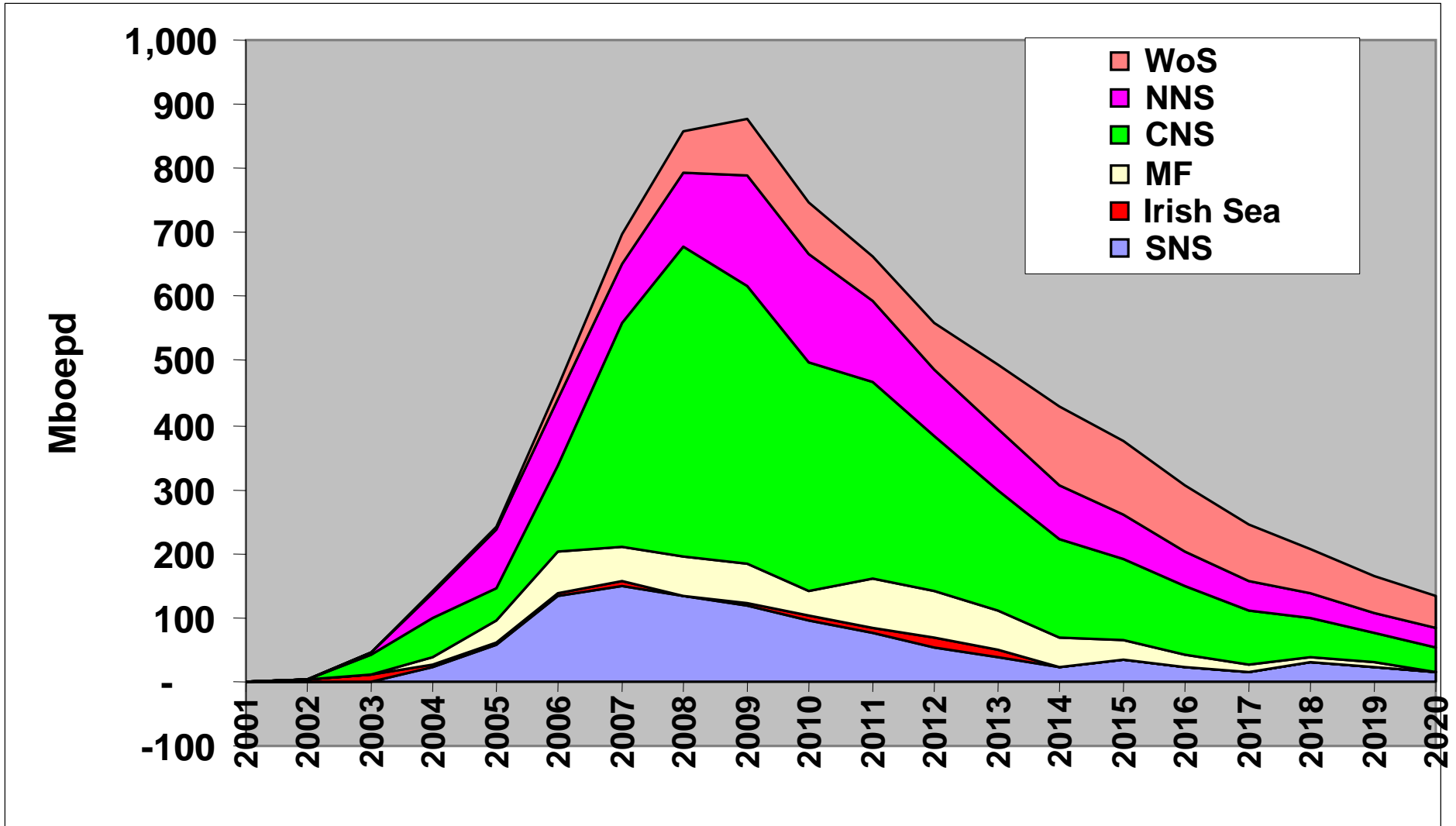
20<sup>th</sup> March 2002

11<sup>th</sup> November 2002

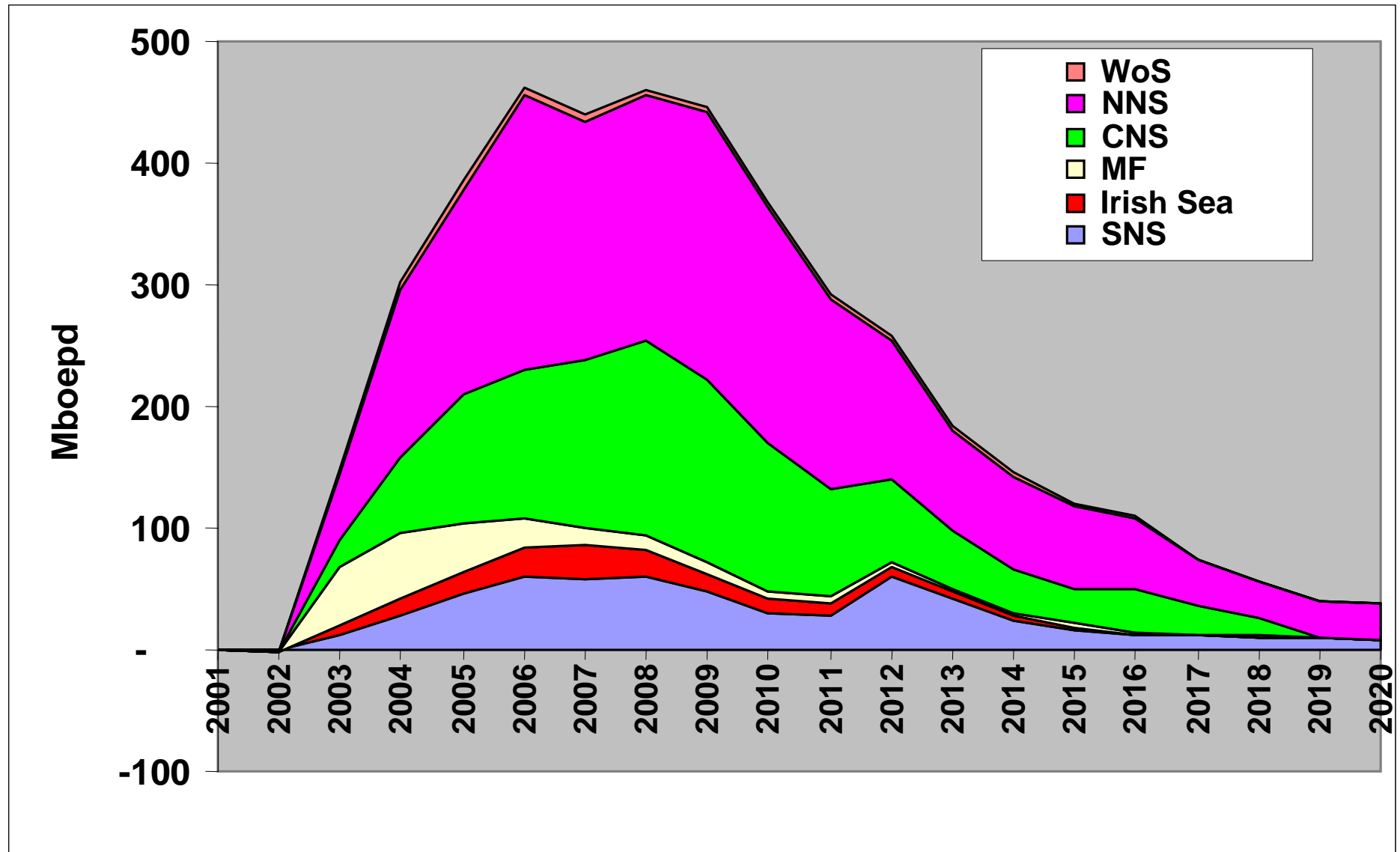
# UKCS production by area



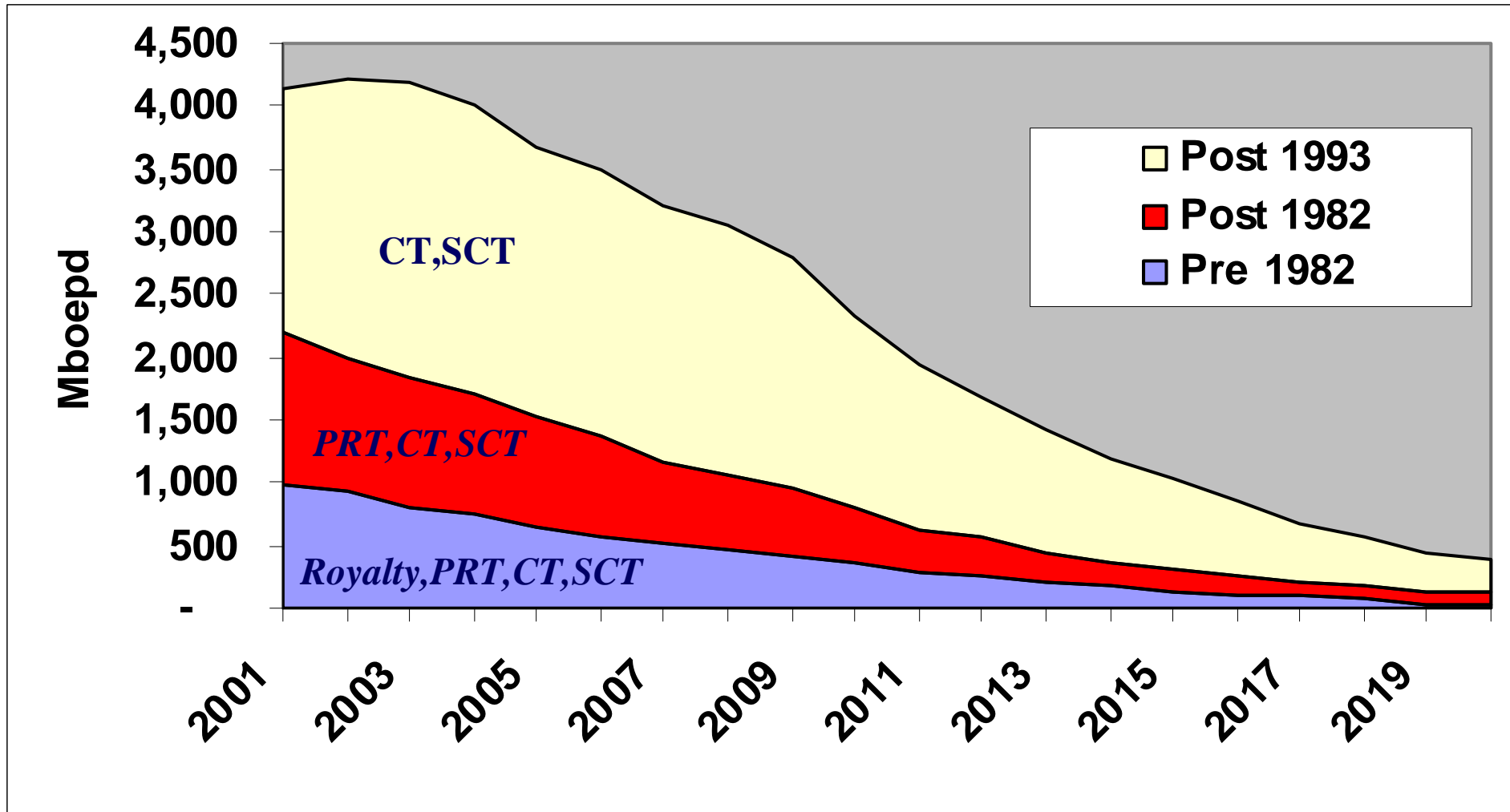
# Probable & Possible developments by area



# Incremental projects by area

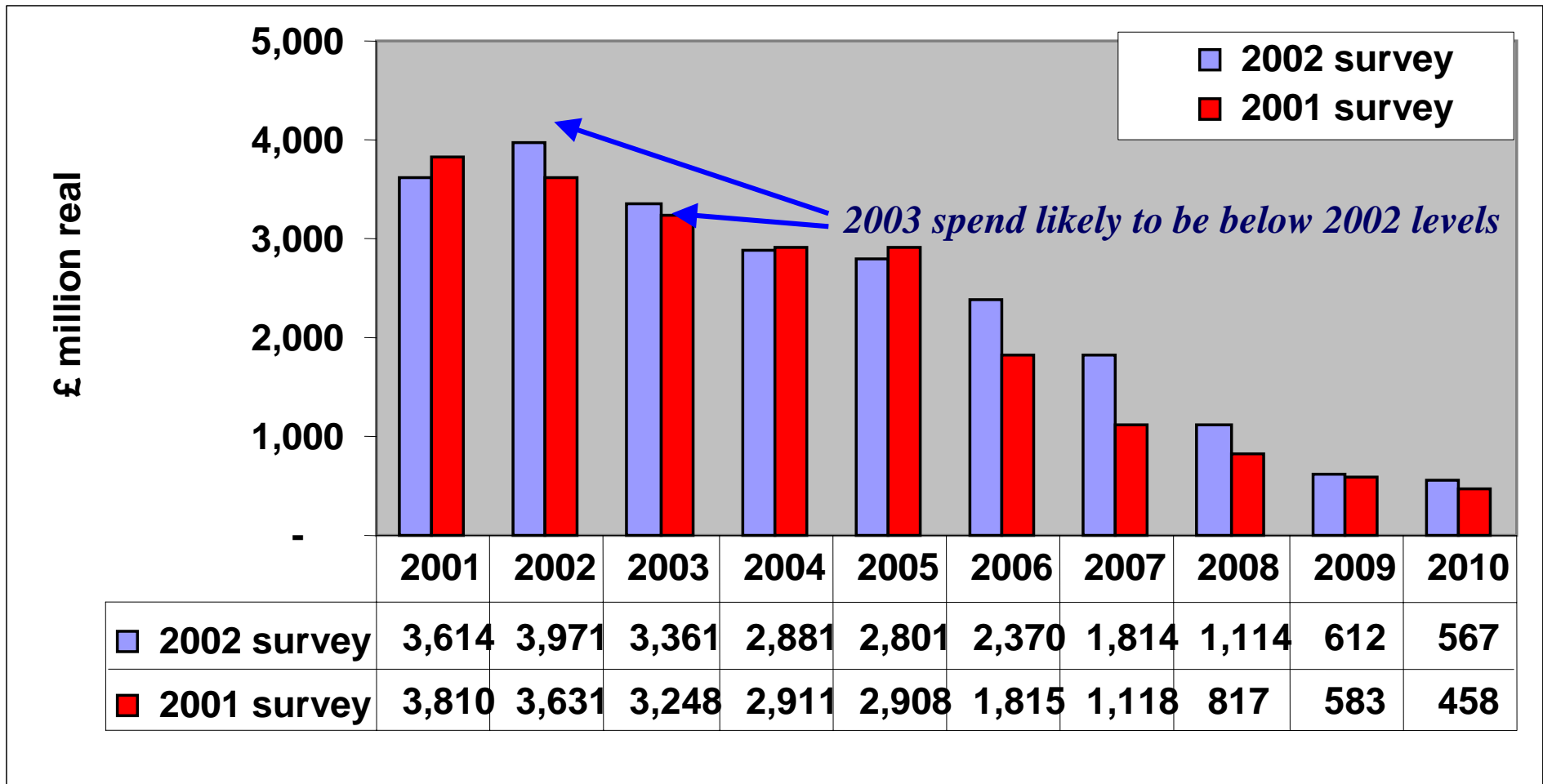


# UKCS production by tax regime



# Costs

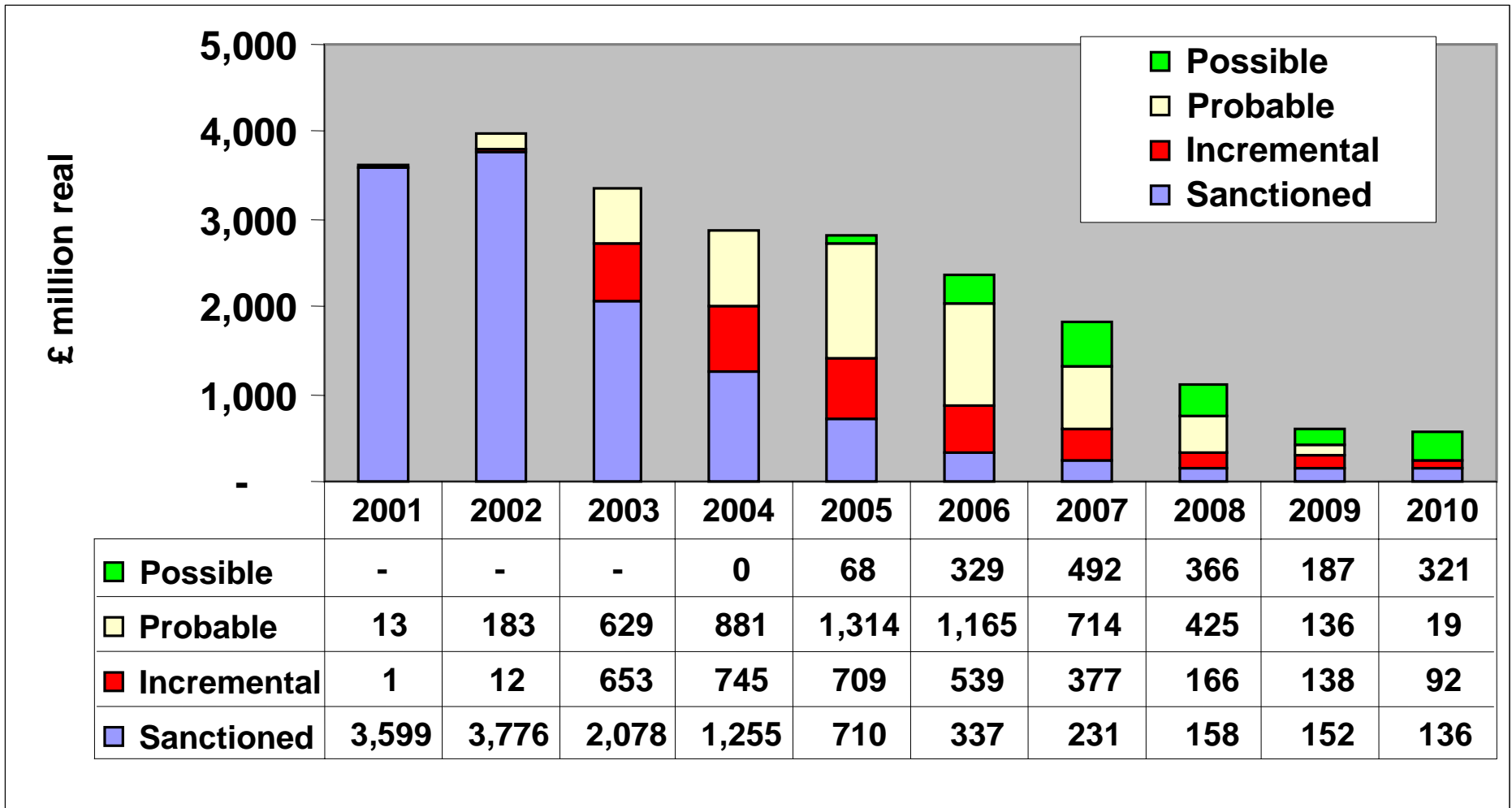
# Capex comparison



*Capex 2002-2006 increased by £0.9 billion*

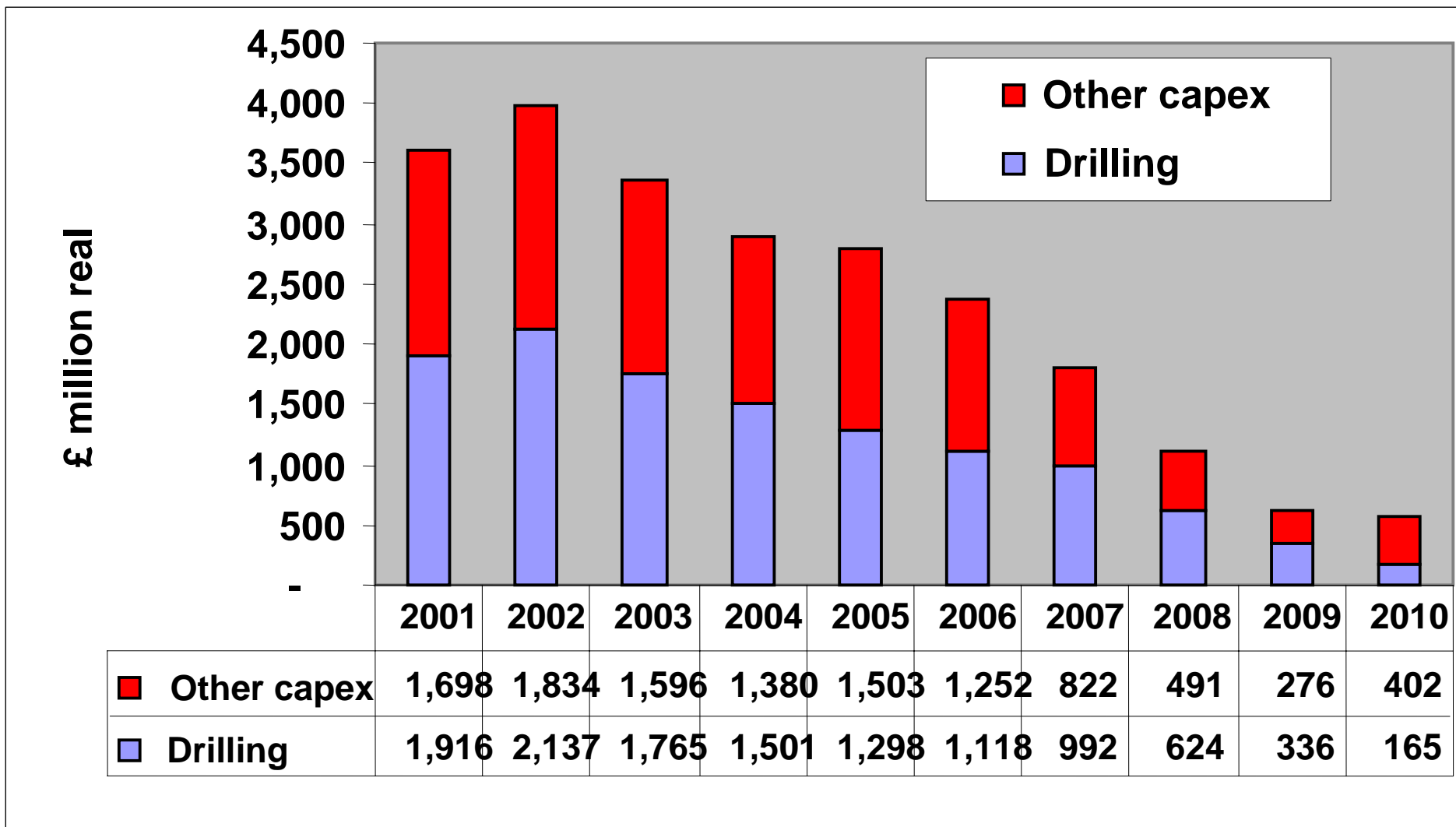
*Capex 2003-2007 increased by £1.2 billion*

# Capex build up

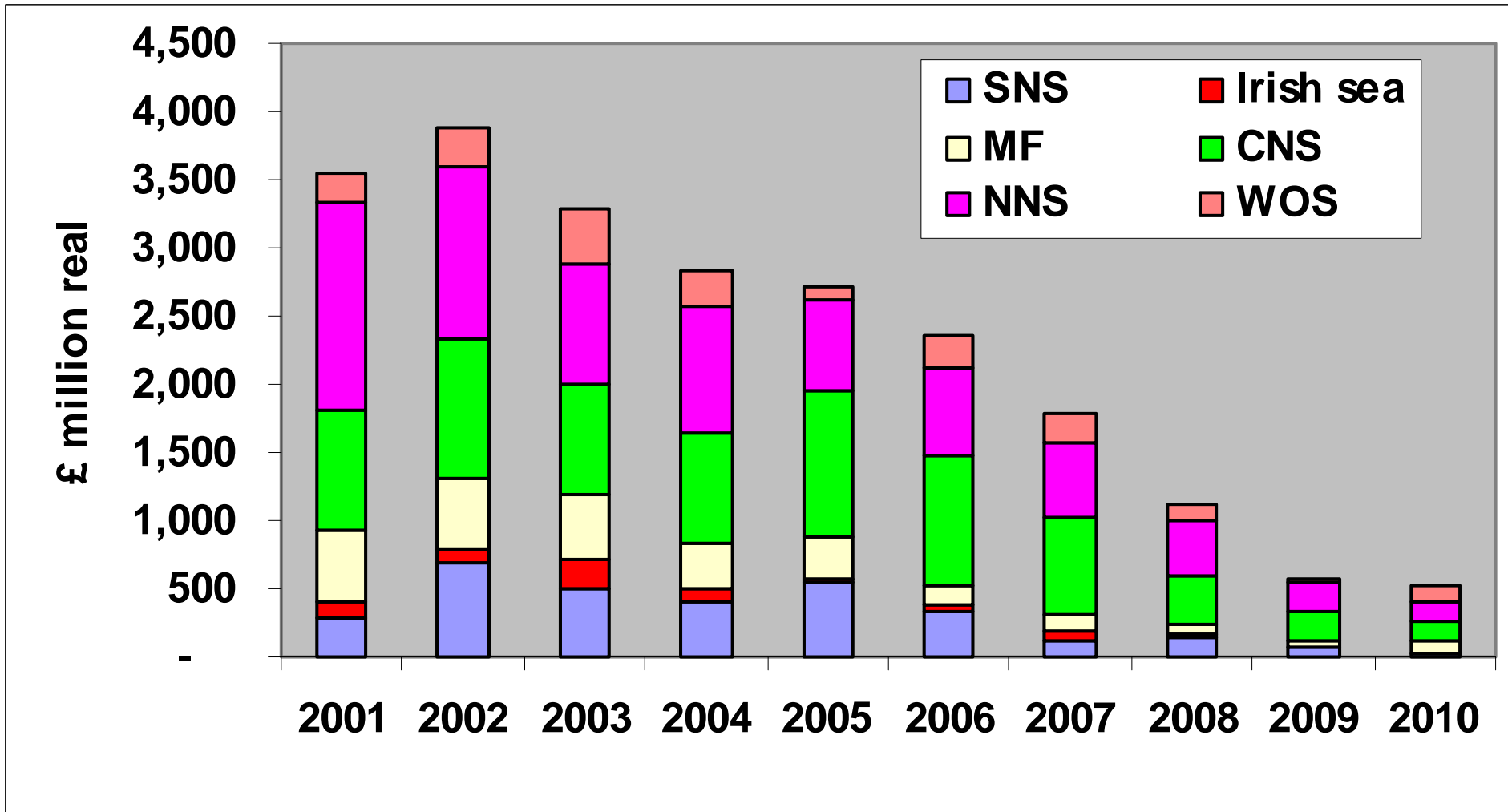


*Probable spend may slip- few projects sanctioned since Budget*

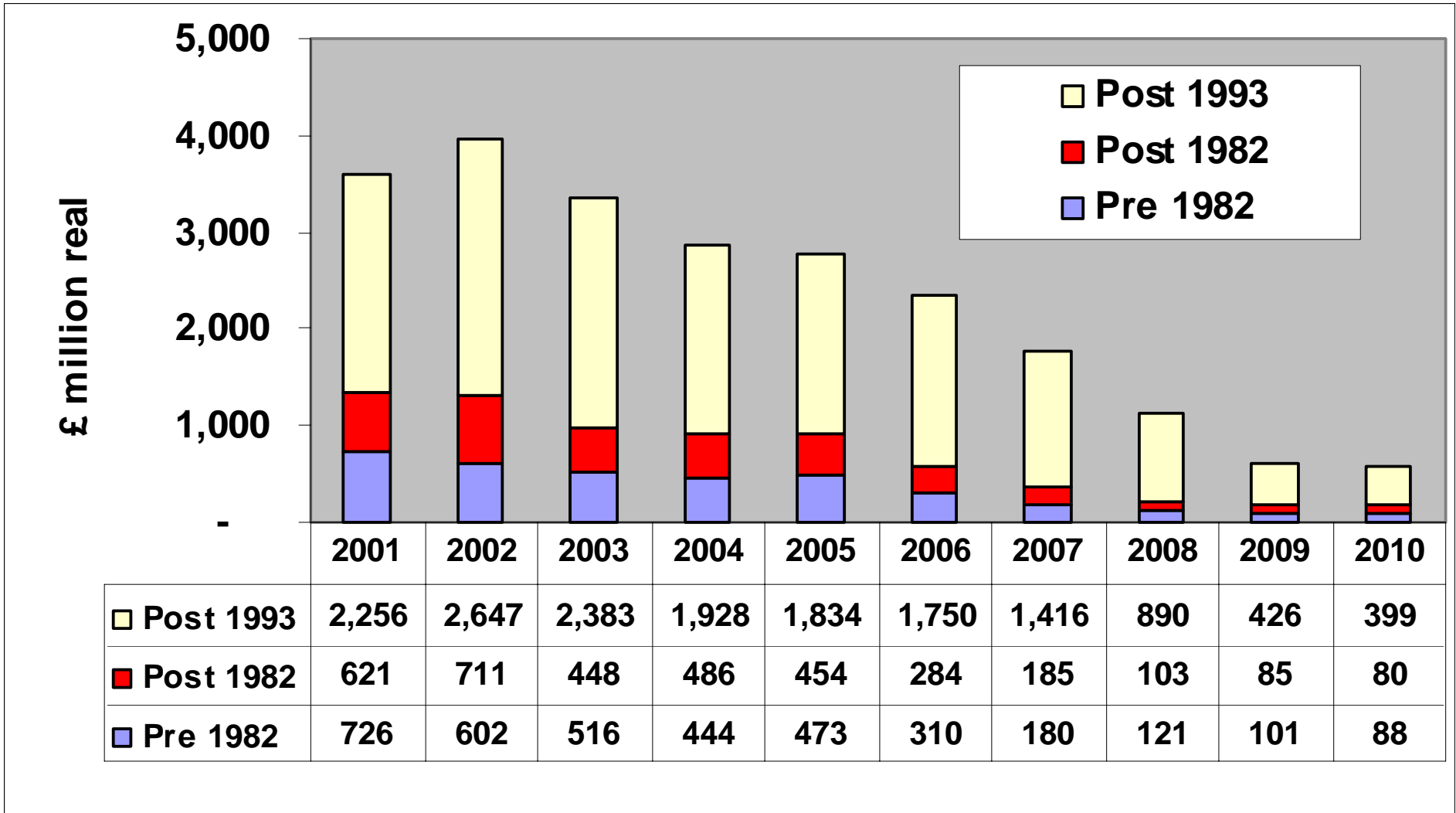
# Capex by type



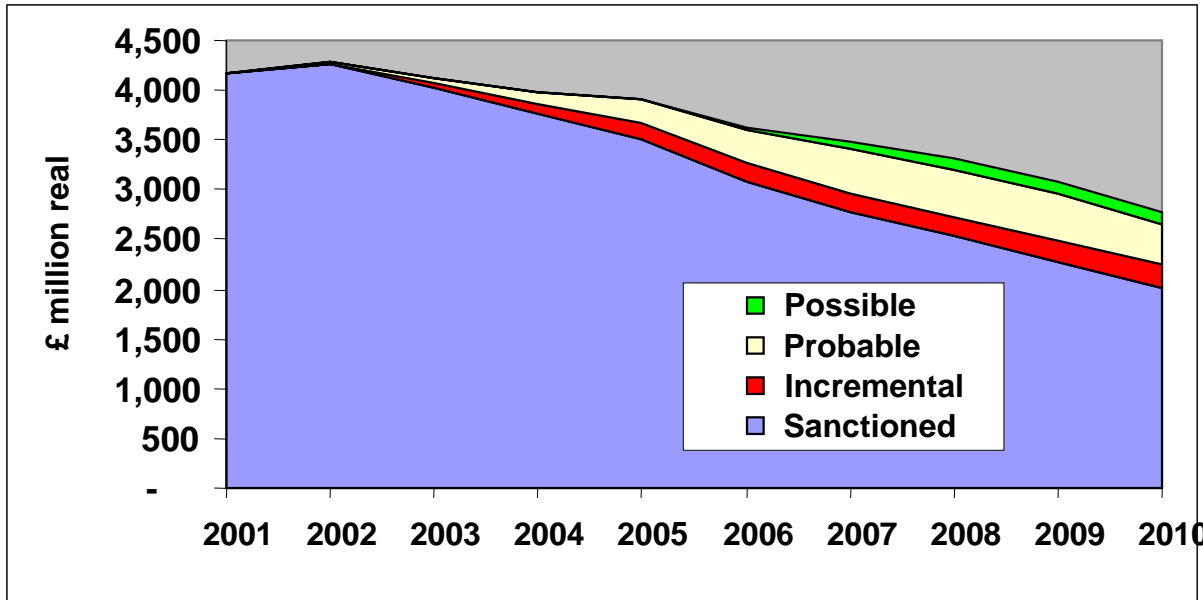
# Capex by area



# UKCS capex by Tax vintage



# Operating costs

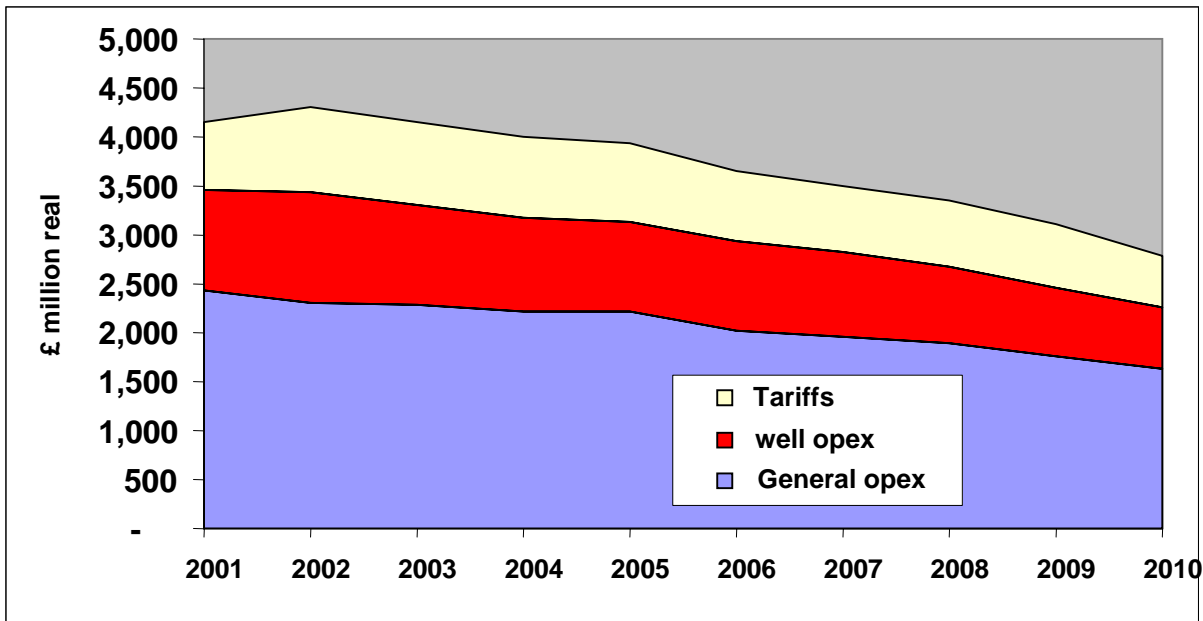


✓ Opex decline not matching production decline

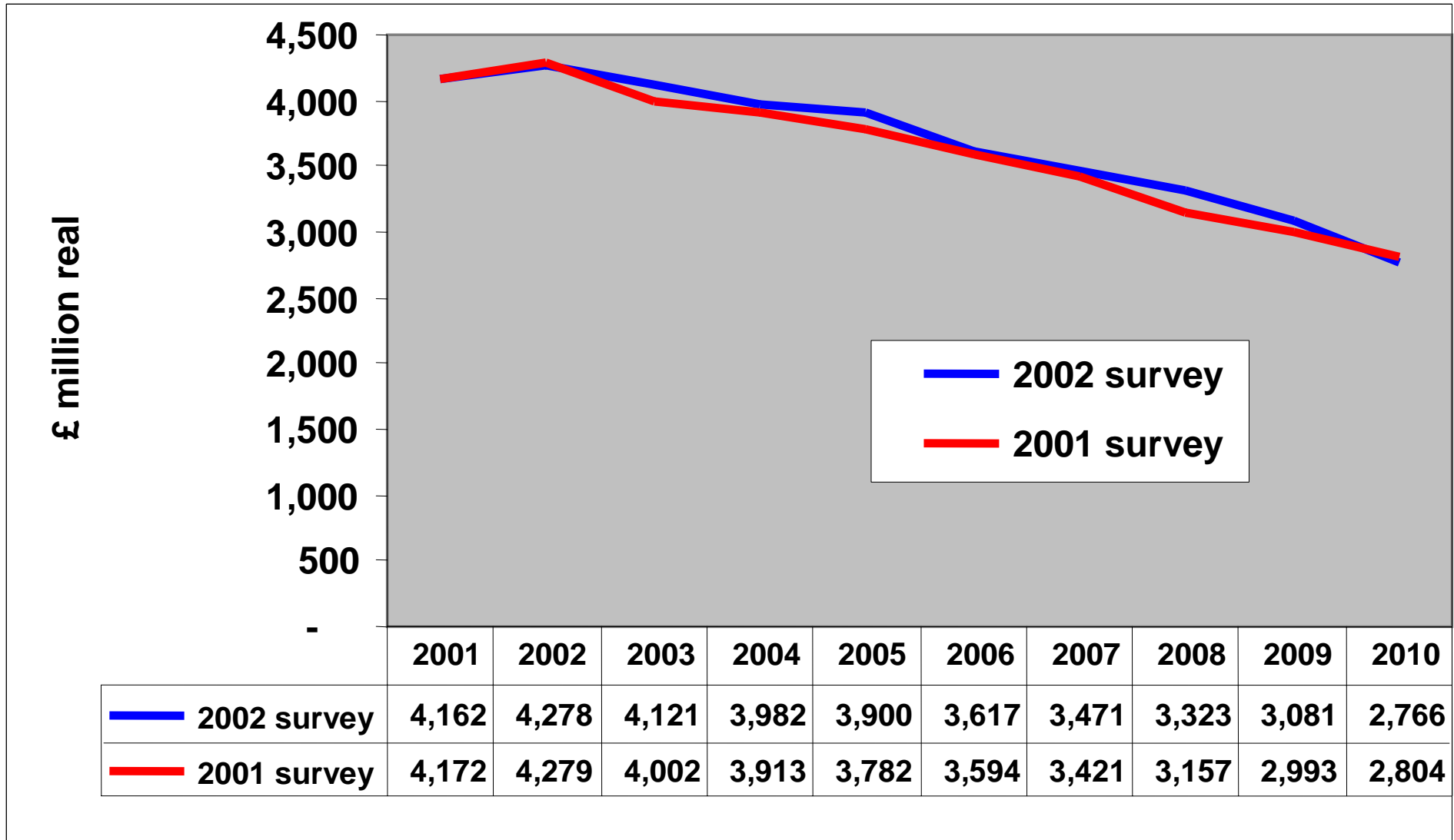
✓ Opex/boe:

➤ 2001= \$4.1

➤ 2010= \$4.9

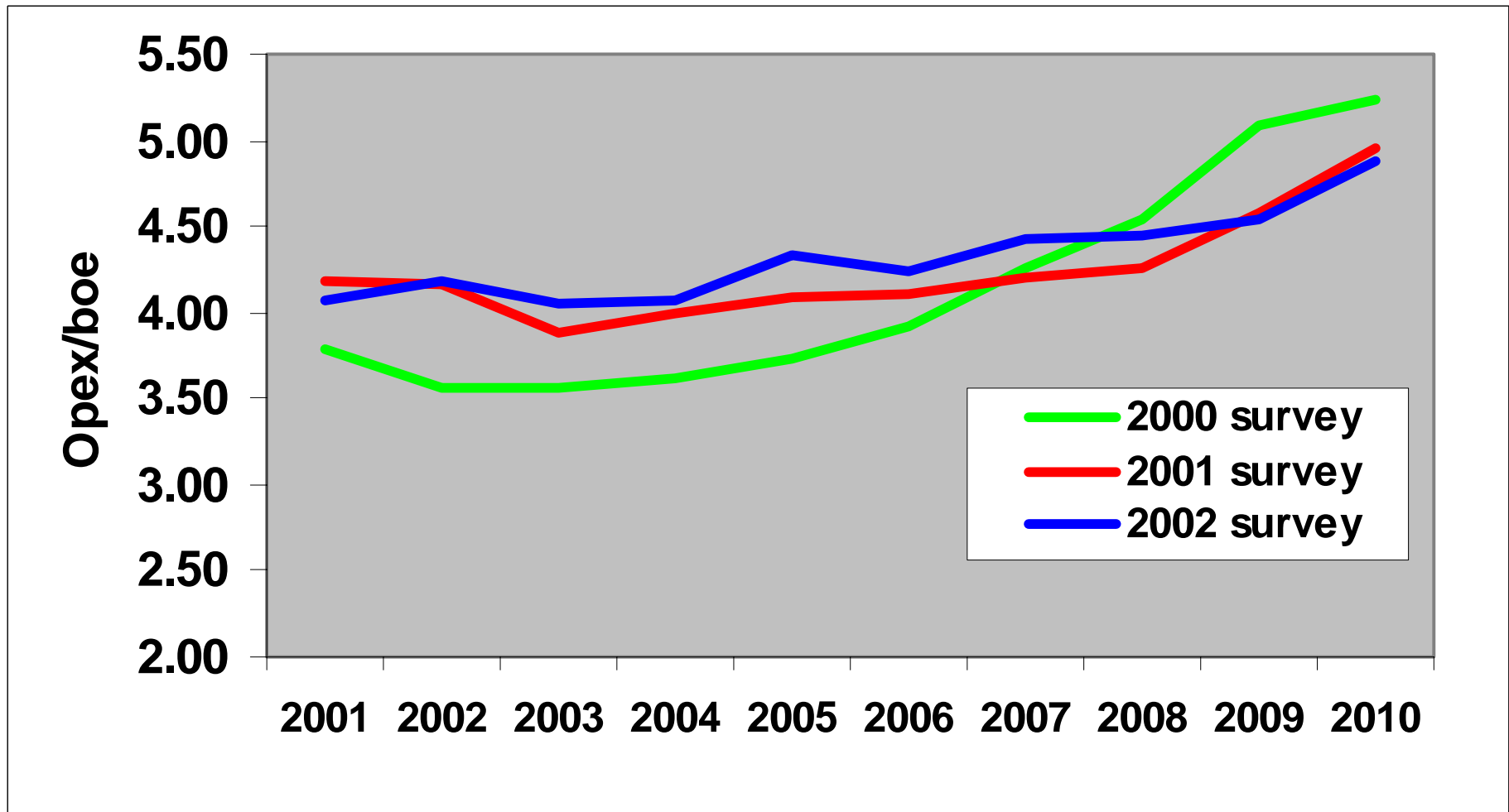


# Opex comparison



# UKCS Opex/boe

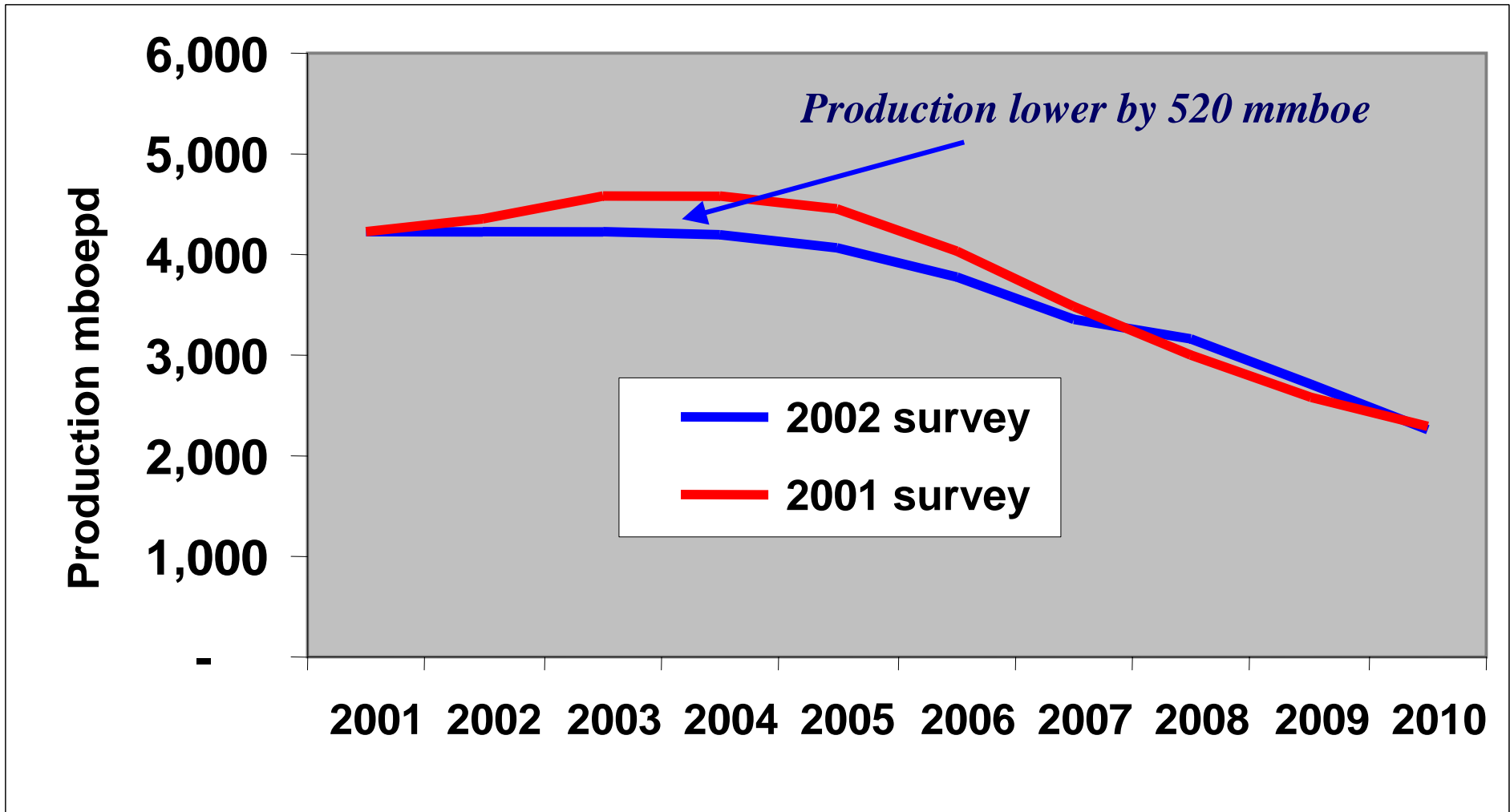
UKOOA Activity survey 2002



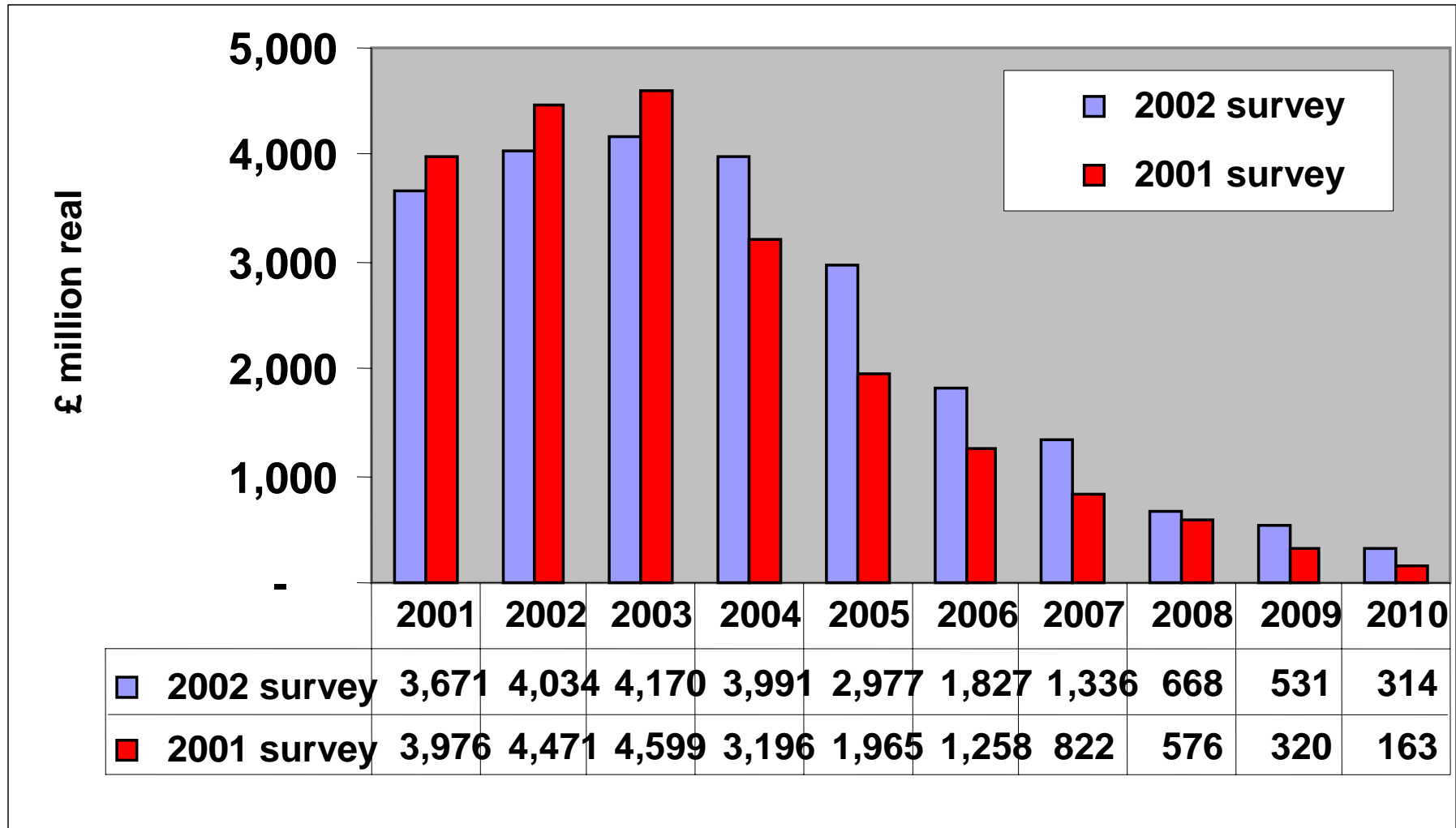
11<sup>th</sup> November 2002

# Unrisked data

# Unrisked UKCS Production



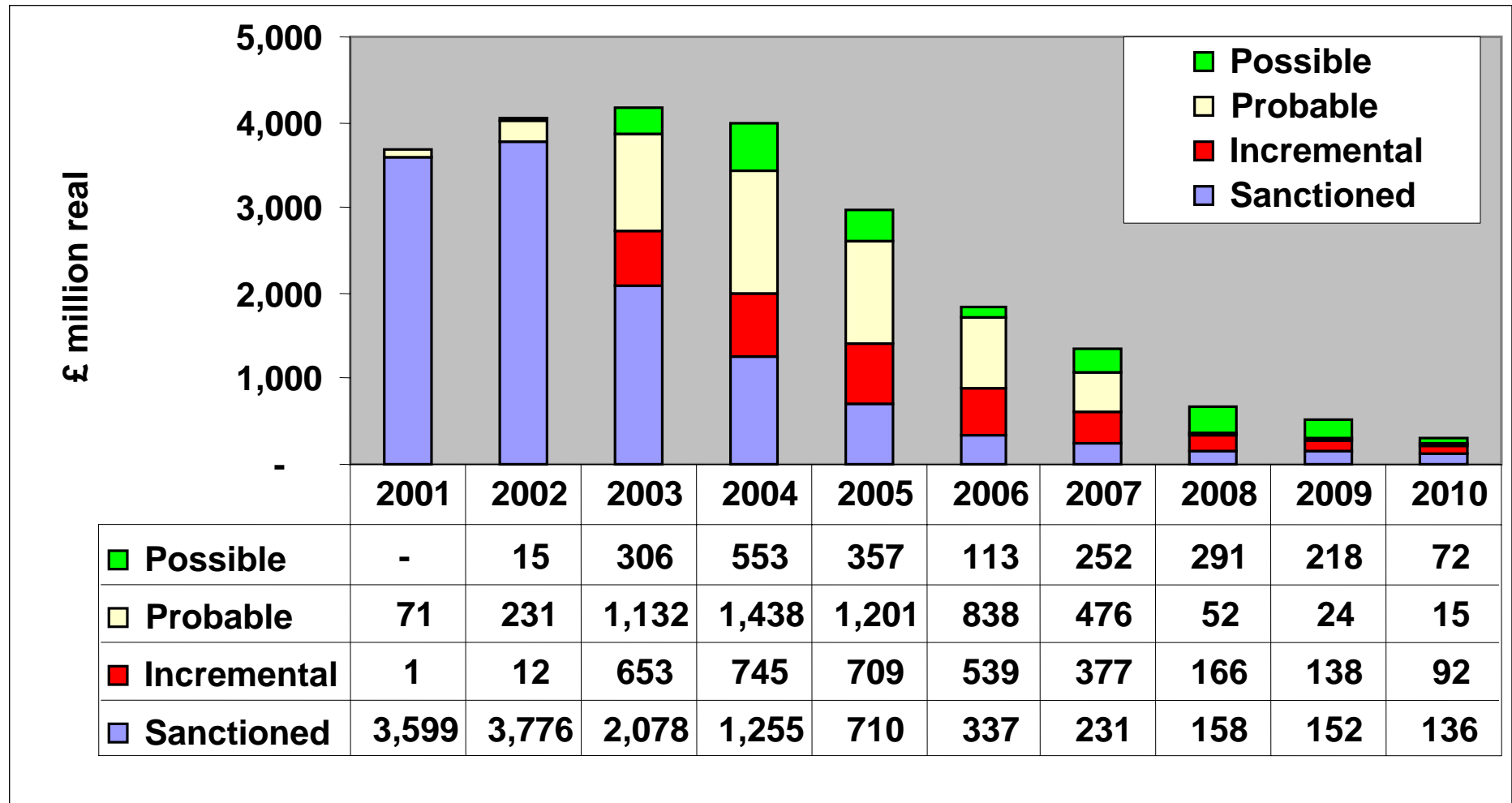
# Unrisked capex



*Capex 2002-2006 increased by £1.5 billion*

*Capex 2003-2007 increased by £2.5 billion*

# Unrisked capex build-up



# UKOOA Survey- Statistics (2002 Survey)



UKOOA Activity survey 2002

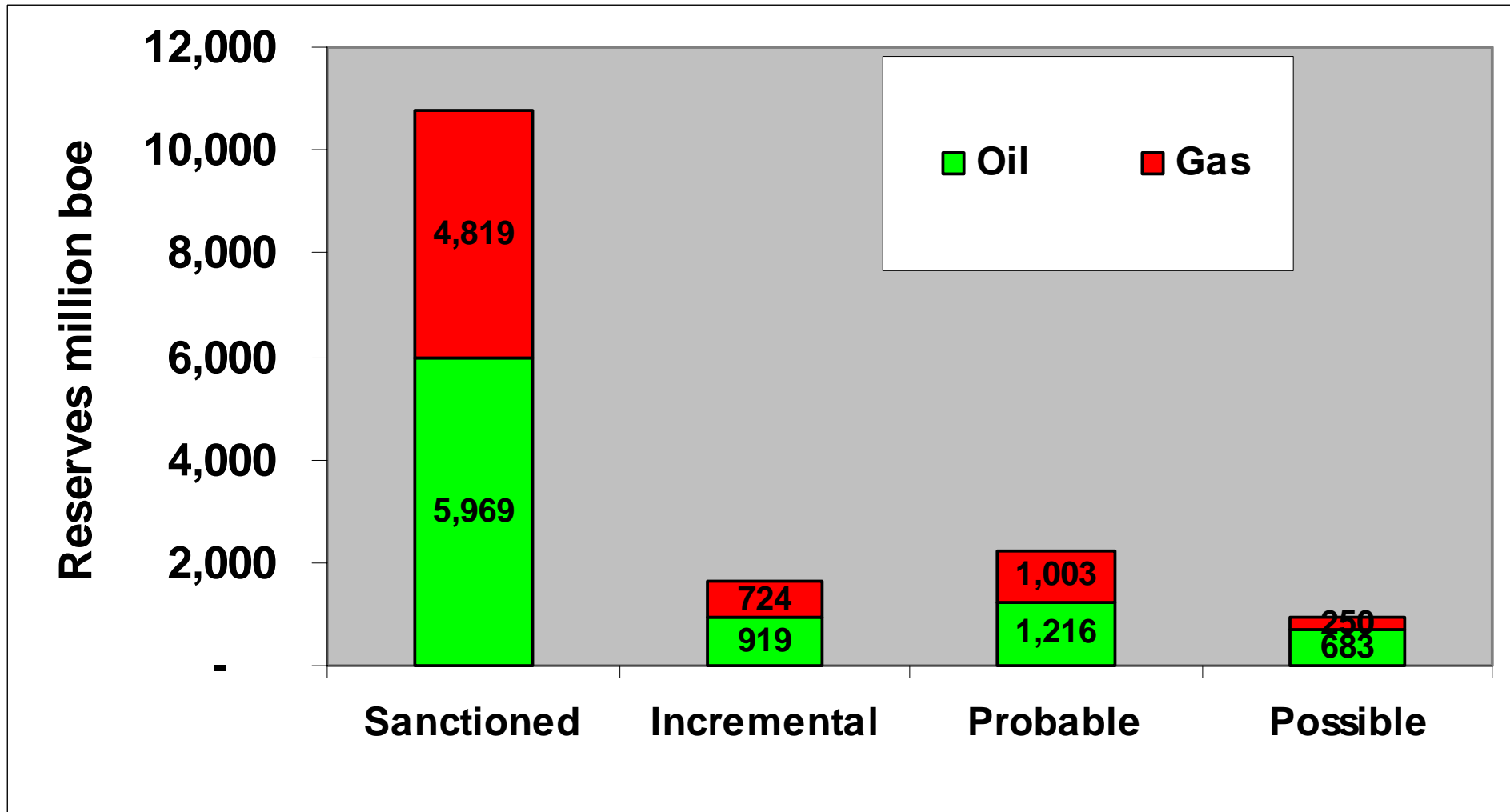
Field Category	No of Fields	Reserves Million boe	Capex £ millions
Sanctioned fields	260 (248)	10788 (9798)	9256 (4807)
Incremental	144 (96)	1643 (1756)	3568 (3384)
Probable fields	51 (64)	2218 (2745)	5498 (6729)
Possible fields	33 (84)	933 (1669)	2391 (3491)
Total 2002-2040	488 (492)	15581 (15969)	20714 (18412)

Data from 1/1/2002

Figures in brackets denote 2001 survey data

11<sup>th</sup> November 2002

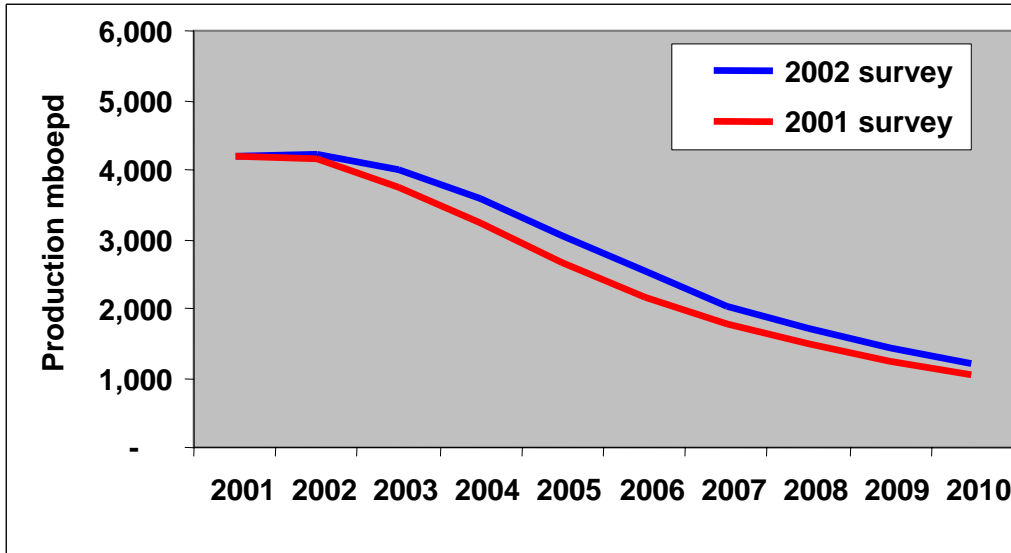
# Remaining reserves from 1/1/2002



# Sanctioned activity

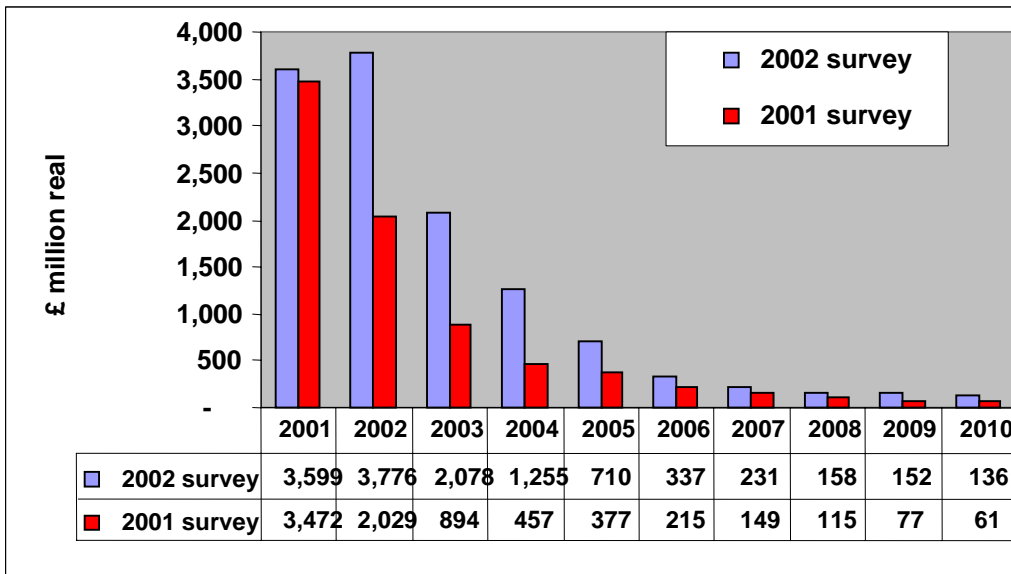
UKOOA Activity survey 2002

## Production



Production increased by 1088 mmboe to 2020

## Capex

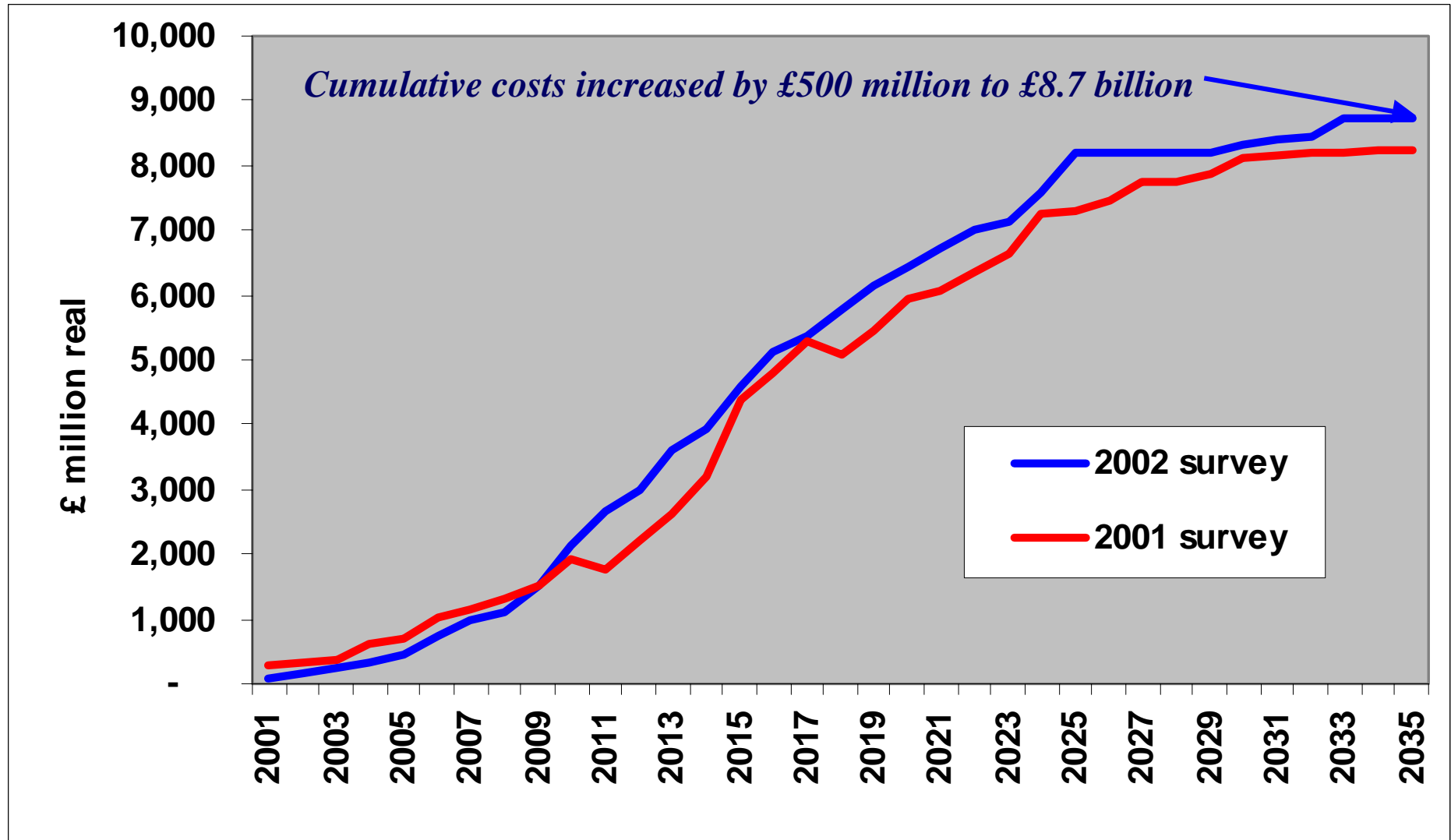


Capex up by £4.6 billion

Cost of £4.2 (\$6.3/boe)

11<sup>th</sup> November 2002

# Removal costs- Cumulative expenditure



# Messages

*UKOOA Activity survey 2002*

- ✓ **Industry struggling to sustain production**
  - **Production to 2010 lower by over 374 mm boe compared to 2001 survey**
    - ◆ **Gas production some 2.2 TCF lower- Oil production unchanged**
- ✓ **PILOT Targets more difficult to achieve**
  - **No progress in closing gap to 2010 production- further away in 2005**
- ✓ **Rising costs and operability challenges**
  - **Expect higher capex, but**
    - ◆ **In combination with falling production trend is unsustainable**
- ✓ **Probable and Possible field portfolios significantly reduced (64 projects)**
  - **Reserve contribution lower by over 1.3 billion boe**
    - ◆ **Fields sanctioned not being replaced by new discoveries or acceleration of technical reserves.**
  - **Incremental projects (Brown field activity) of greater importance**
- ✓ **High oil price sustaining development activity- so far**

*11<sup>th</sup> November 2002*