

Environmental Technologies for the Future TTA1 Innovation Seminar

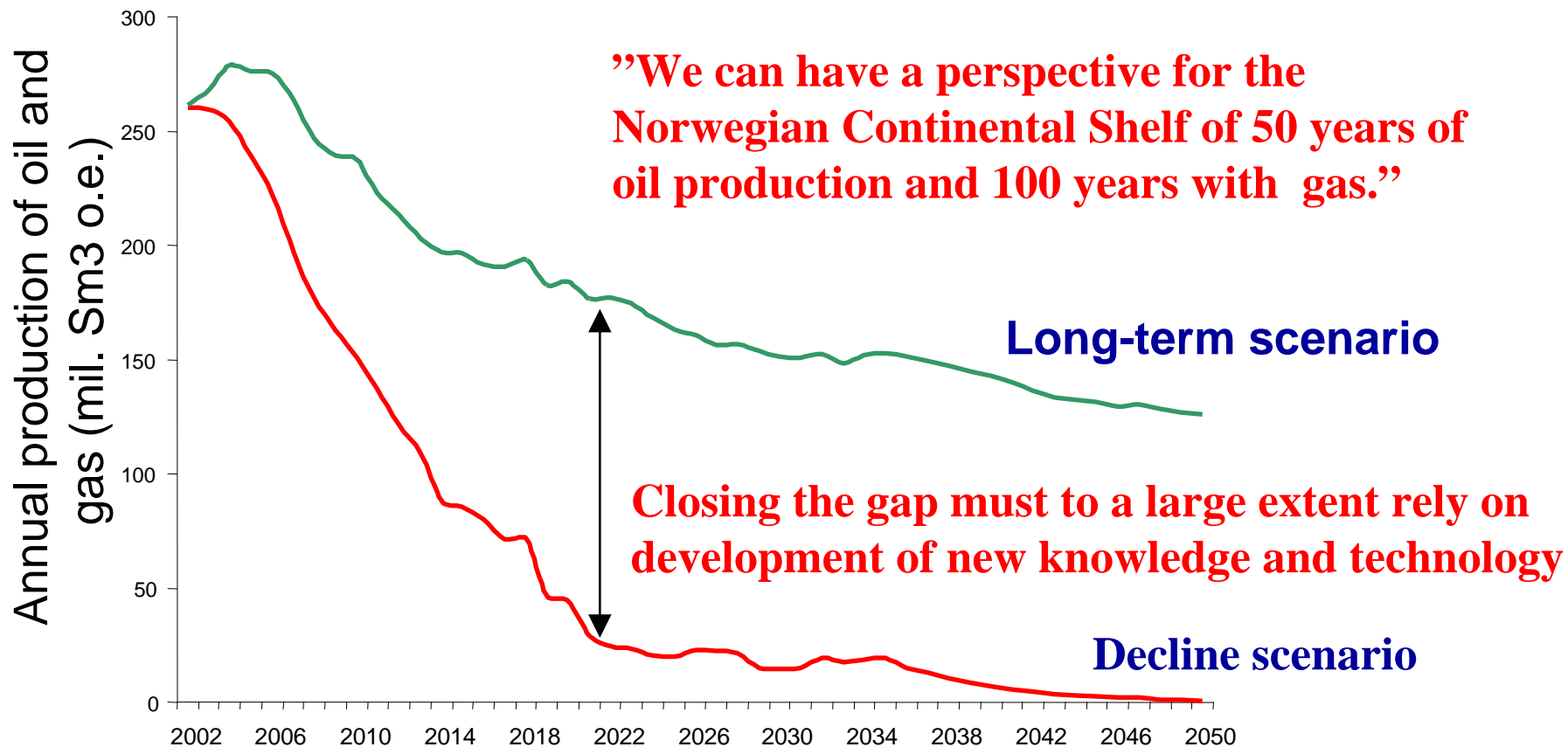
Wednesday, April 15, 2009



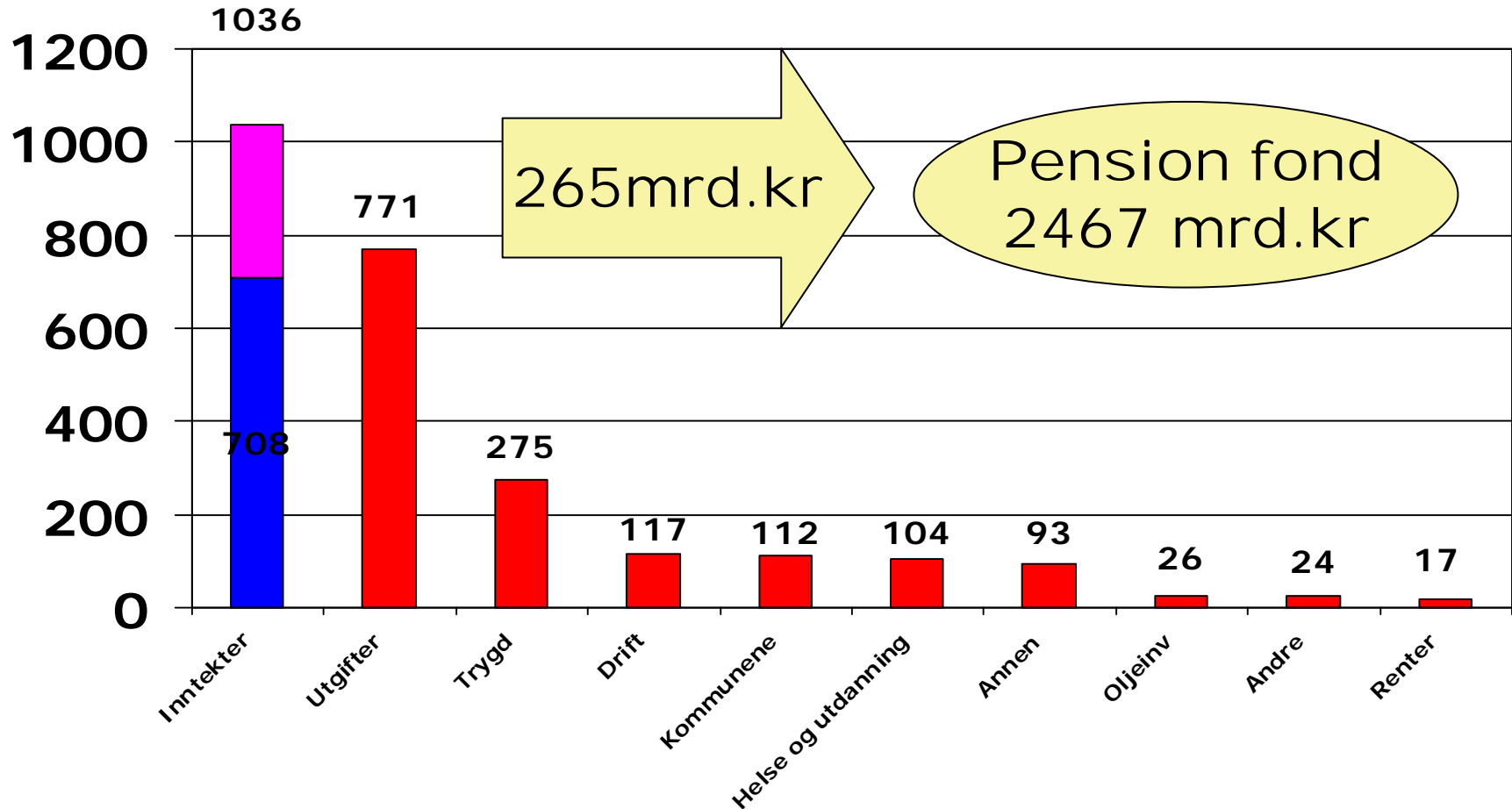
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www.og21.org

Development perspectives for the Norwegian Continental Shelf



Norways economy is petroleum driven



Oil and gas in the 21.Century



- The Authorities realised the need for a more focused and coordinated activity and initiated OG₂₁
- Two main objectives assigned to OG₂₁
 - Develop new knowledge and technology to ensure a sustainable economical and environmentally *development of resources on the NCS*
 - Increase *export of technology*





Focus areas (TTA) in OG₂₁

- Environmental technology for the future
- Exploration and reservoir characterisation
- Enhanced recovery
- Cost effective drilling and intervention
- Integrated operations and RTRM
- Subsea processing and transportation
- Deep water and subsea production technology
- Gas technologies

To have focus on the user dimension all TTA led by an oil company representative



Cooperation modell





Participants



13 Board members

8 TTA groups with 10-15 participants each

Totally 110 persons

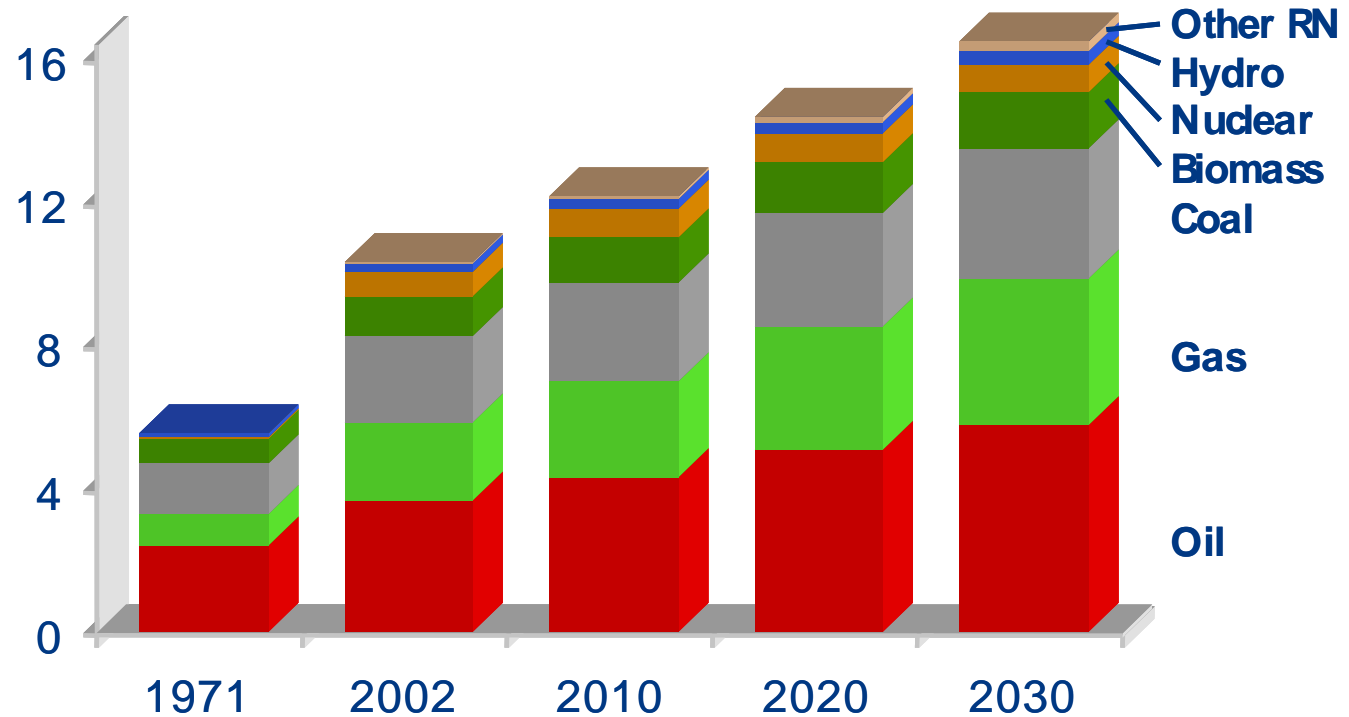
Additional network not included

On voluntarily basis

Energy Perspectives Global demand



Billion tonnes oil equivalent



Source:IEA

Environmental Challenges



1 RISING GLOBAL ENERGY DEMAND

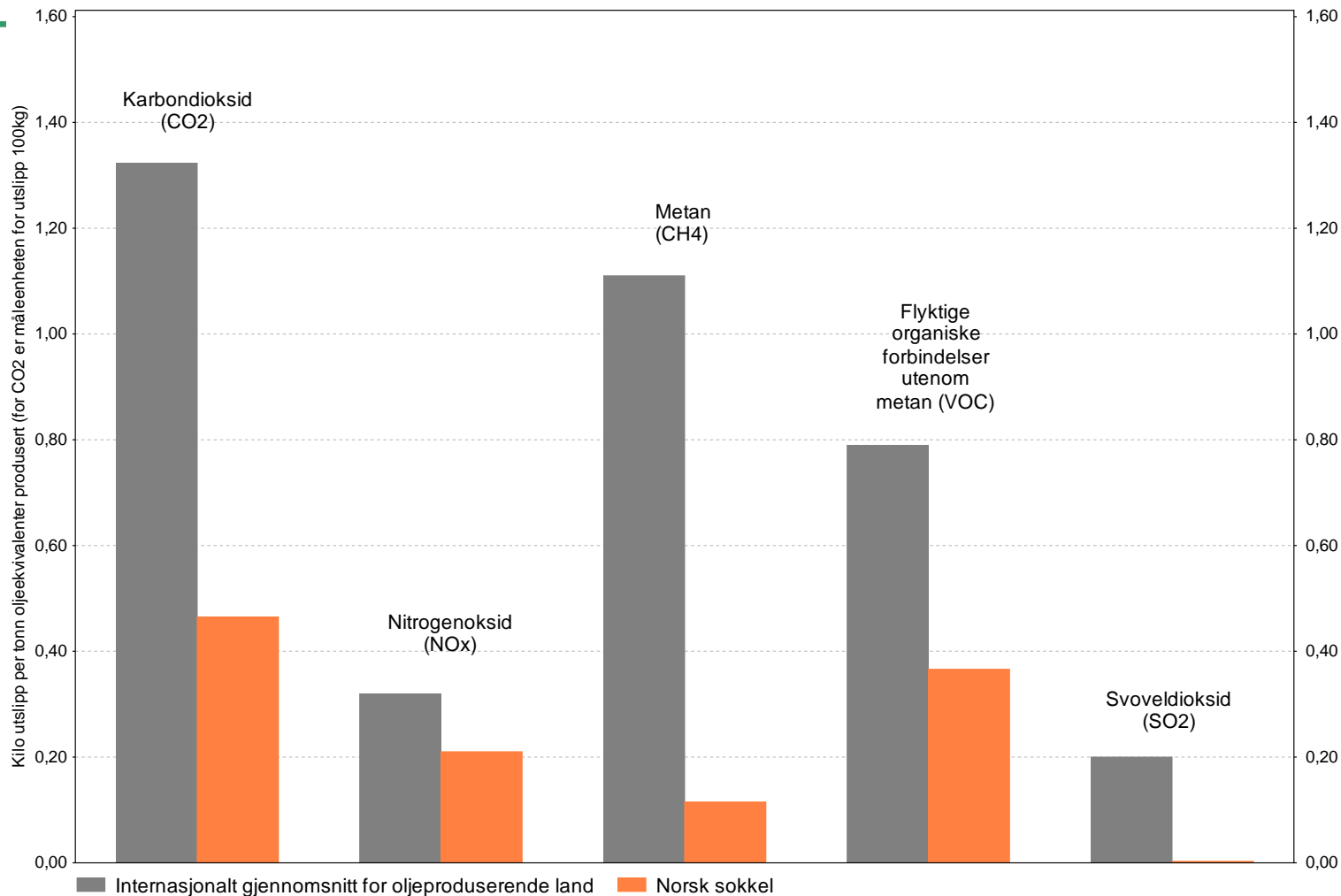
2 RISING ENVIRONMENTAL FOCUS

3 NEW PRODUCTION – CAN THEY MEET ENVIRONMENTAL DEMAND

NEED

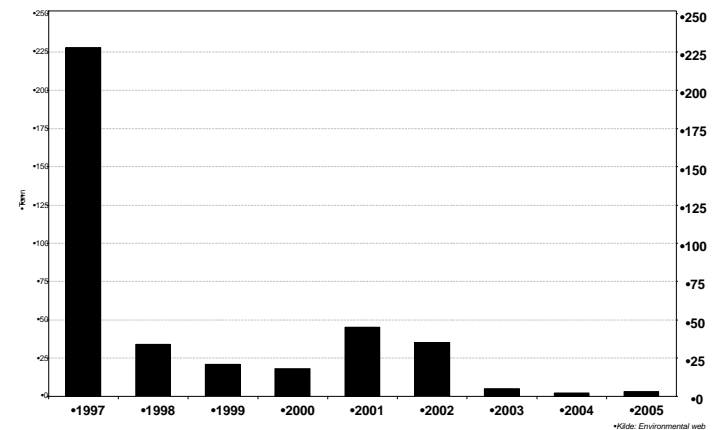
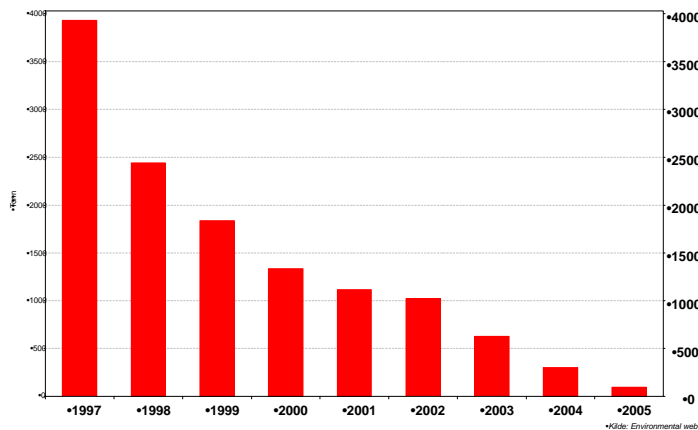
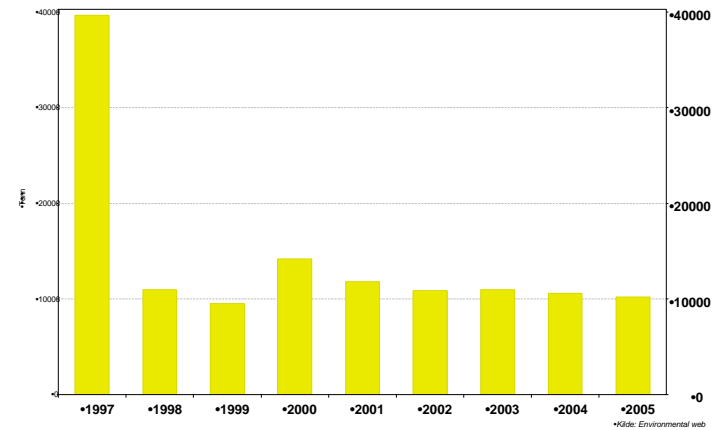
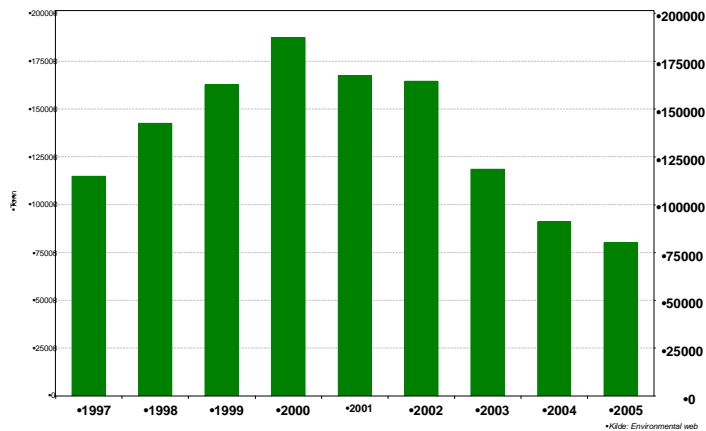
NEW SCIENCE & TECHNOLOGY

Norways position (discharge pr. produced unit)



Kilde: OGP og OLF

Development of discharge of green, yellow, red and black chemicals

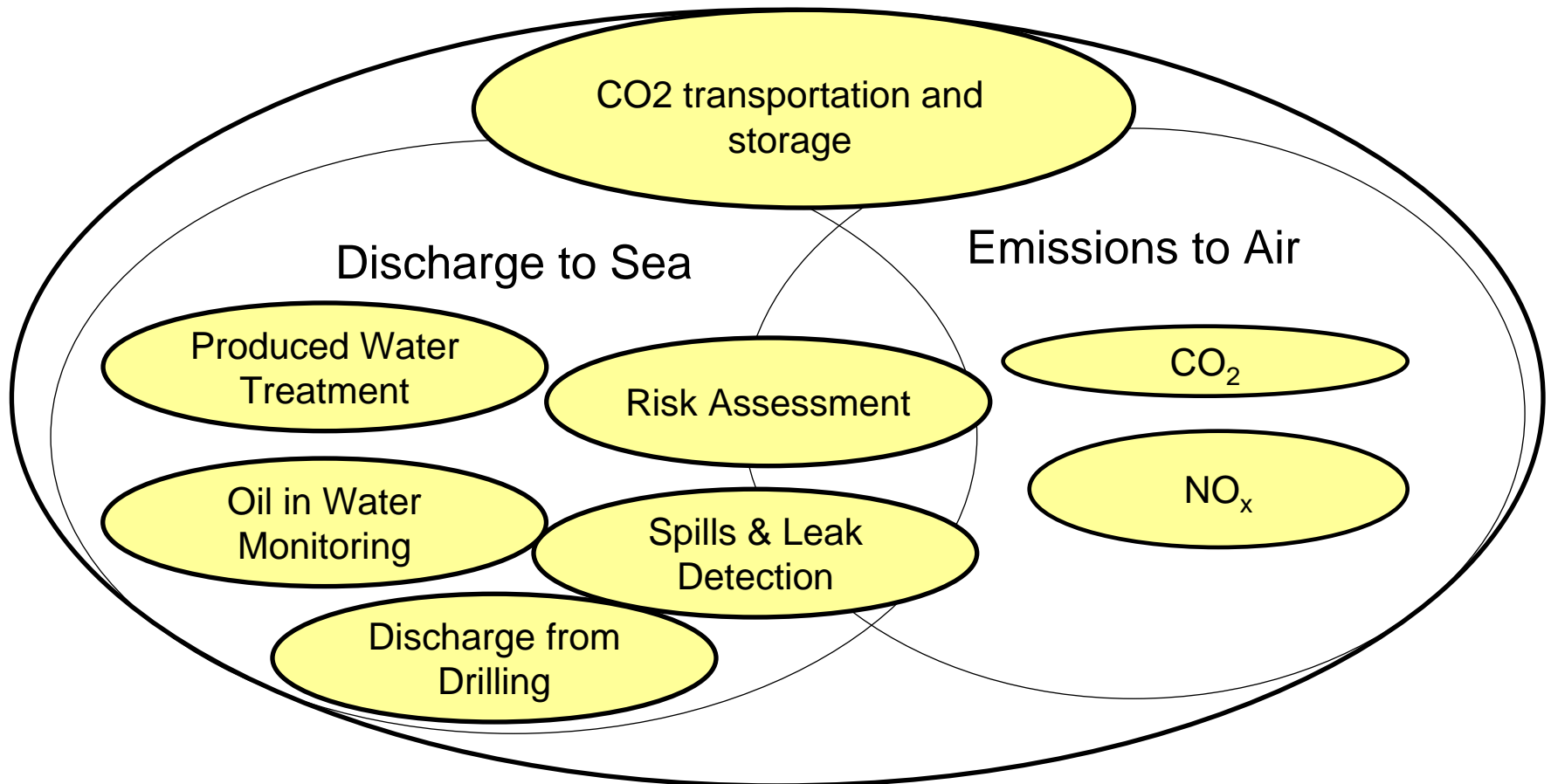


Continue focus on reduction

- “Norway is best” is not an argument
- Continuous improvements
 - Much has been achieved
 - Important that this work continue
- The good effort must be communicated
 - We have not been too informative
 - Must highlight the environmental dimension more than before
 - Environmental focus is day to day activity in the industry



Environmental dimension

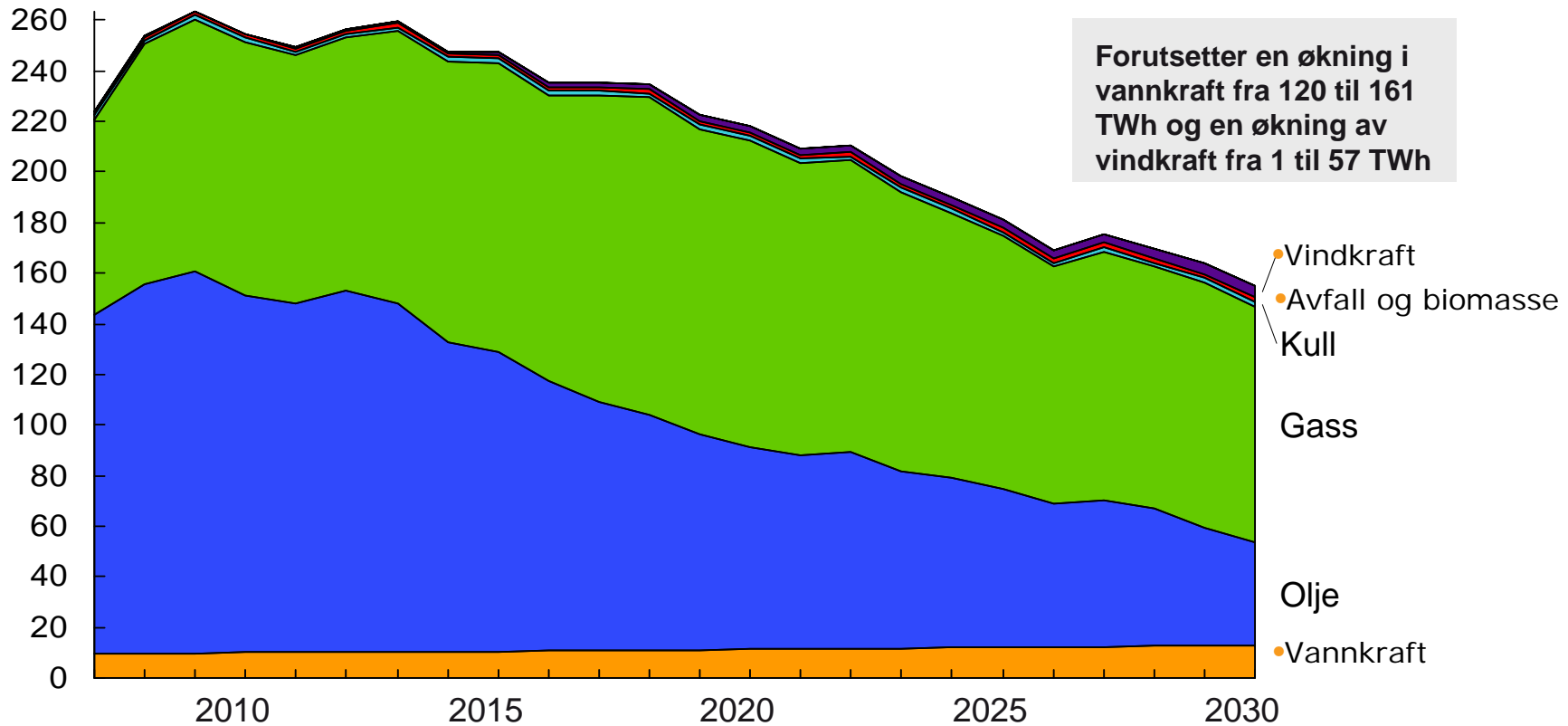


Norwegian energy production



Primærenergiproduksjon

Millioner tonn oljeekvivalenter



Note:
Kilde:

Basert på tall fra OD for olje og gass produksjon, og på vekst i vannkraft og vindkraft
Global insight; Oljedirektoratet; Econ

Main goal

- Have a clean activity as possible
- Show and document that we can live up to it
- Be in a position to export this clean technology



Thank you for your attention

