

The logo for NOVEM, the Netherlands Agency for Energy and the Environment, is located on the left side of the slide. It consists of the word "NOVEM" in a bold, sans-serif font, with the full name of the agency below it. To the right of the text is a stylized map of the Netherlands, with the southern coastal region highlighted in blue.

NOVEM

Netherlands
Agency for
Energy and
the Environment

ECBM exercise in the Netherlands

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- Study and Research on potential for CO₂ storage and ECBM production in the Netherlands (finished)
- Successor R&D on site evaluation and behaviour of CO₂ (ongoing)
- Building of an industrial orientated consortium, willing to support the idea and the planned demonstration (ongoing)
- Demonstration proposal for the EU 6th Framework Programme (planned)



CO2/ECBM-1

Inventory of Potential

- **CO2 supply** (power stations, chemicals, CHP, District Heating, waste incineration)
- **Capture** (amine process, FD Econamine)
- **Preparation** (drying, pressurising --> supercritical)
- **Pipeline** construction (average figures)

- Potential of CBM **reserves** (well logs, old cores)
- **Storage** potential (lab experiments real cores, coal behaviour)
- Production/injection **scenarios** (well spacing, stimulation, timing of injection)



CO₂/ECBM-2

Inventory of Costs

Calculated towards produced CBM:

- 8.7 €/GJ without CO₂ bonus
- 4.6 €/GJ, bonus 45 €/t CO₂

Uncertainties:

- drilling costs (investment)
- interest rate
- NG price, now 2.1-2.6 €/GJ (expected increase 2010 to 2.5-3.2 €/GJ)

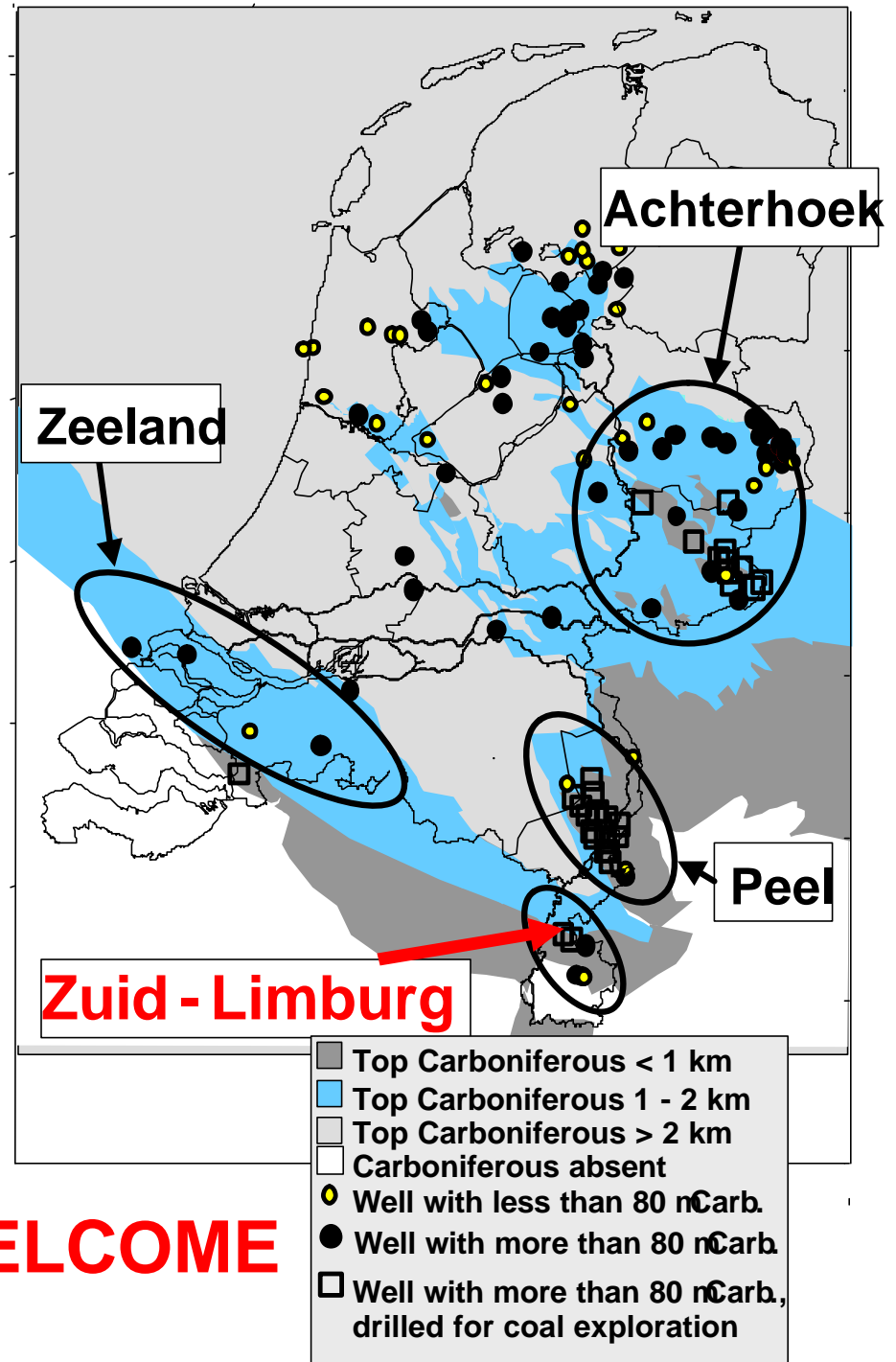
Dependency:

high gas content, tax/bonus (best region: 2.1 €/GJ with 20 €/t bonus!)

Dutch Plan

Dutch Demo

- Depth up to 1,500 m
- Close north to former mining region
- Burial history & mining experience: CBM in high concentration
- CO2 supply on hand



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