



CO₂SINK – CO₂ Storage by Injection into the Natural Reservoir Ketzin **The first European Showcase for Onshore CO₂ Storage**

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<http://www.CO2SINK.org>

Project Costs: Projected total cost: € 14 million
EC contribution: € 8.7 million

Additional Sponsors: project partners

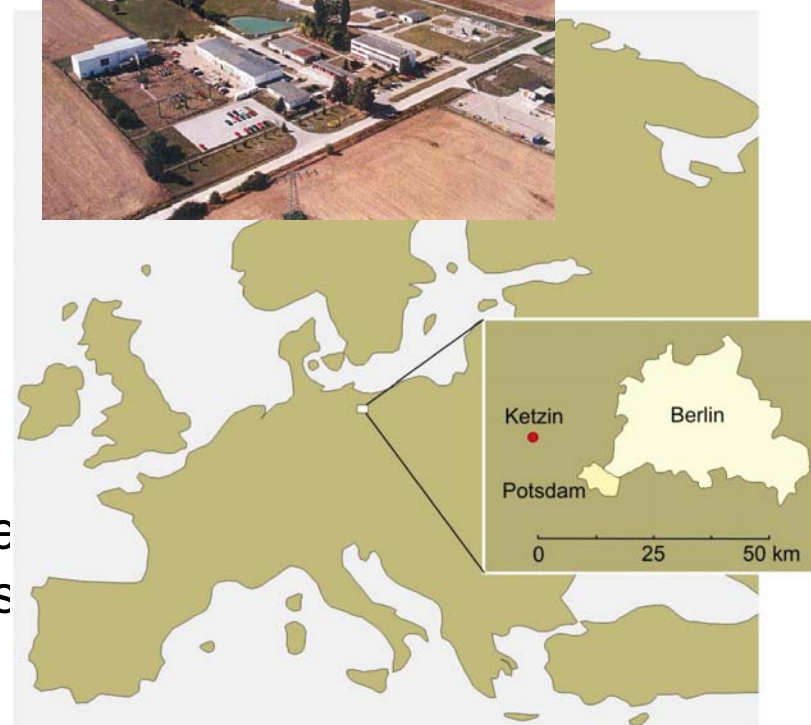
Start of the Project: April 1st, 2004

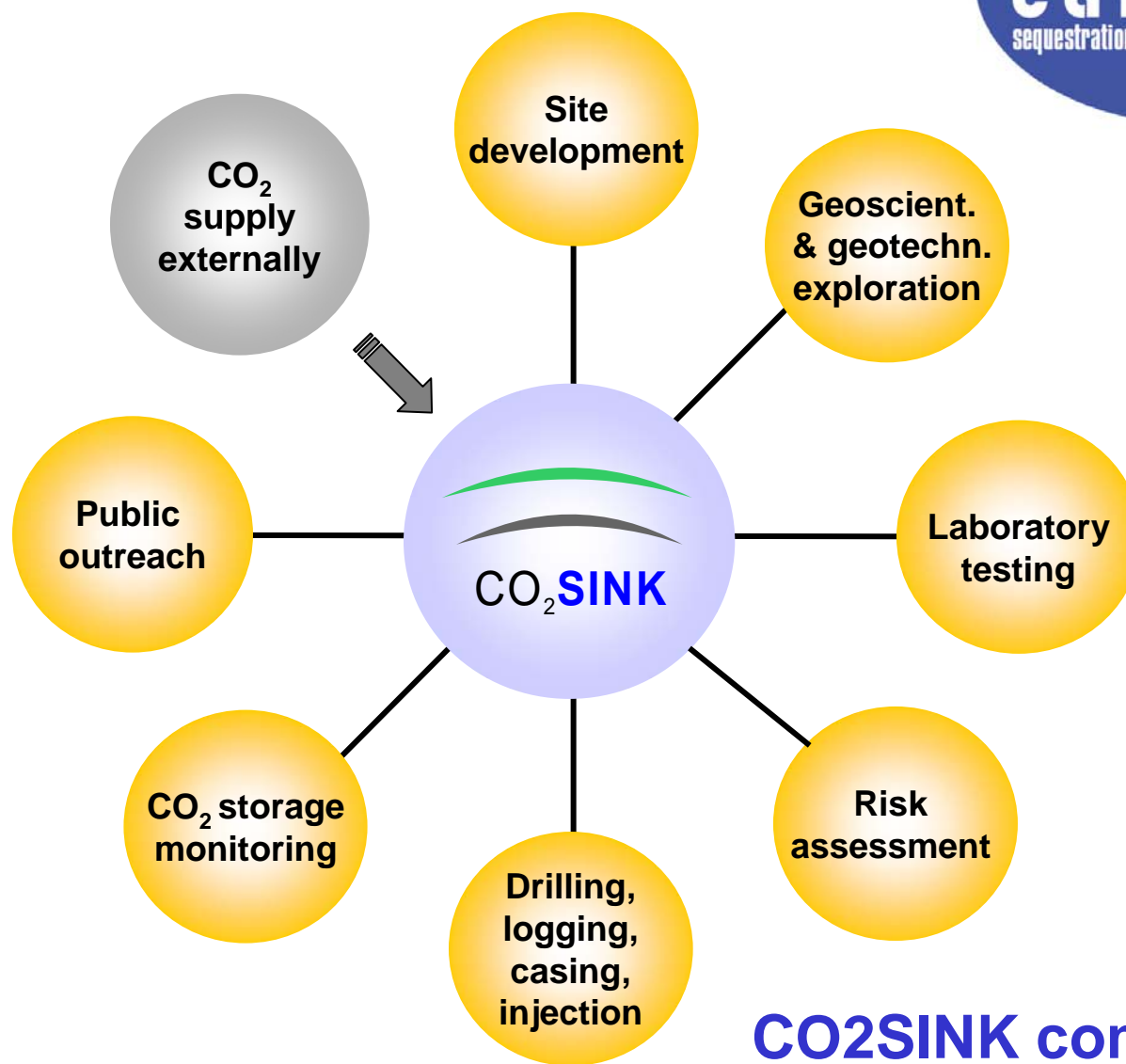
Status of the Project: ongoing

Objectives of CO₂SINK

Injection of CO₂ into a saline aquifer beneath the town of Ketzin near Berlin:

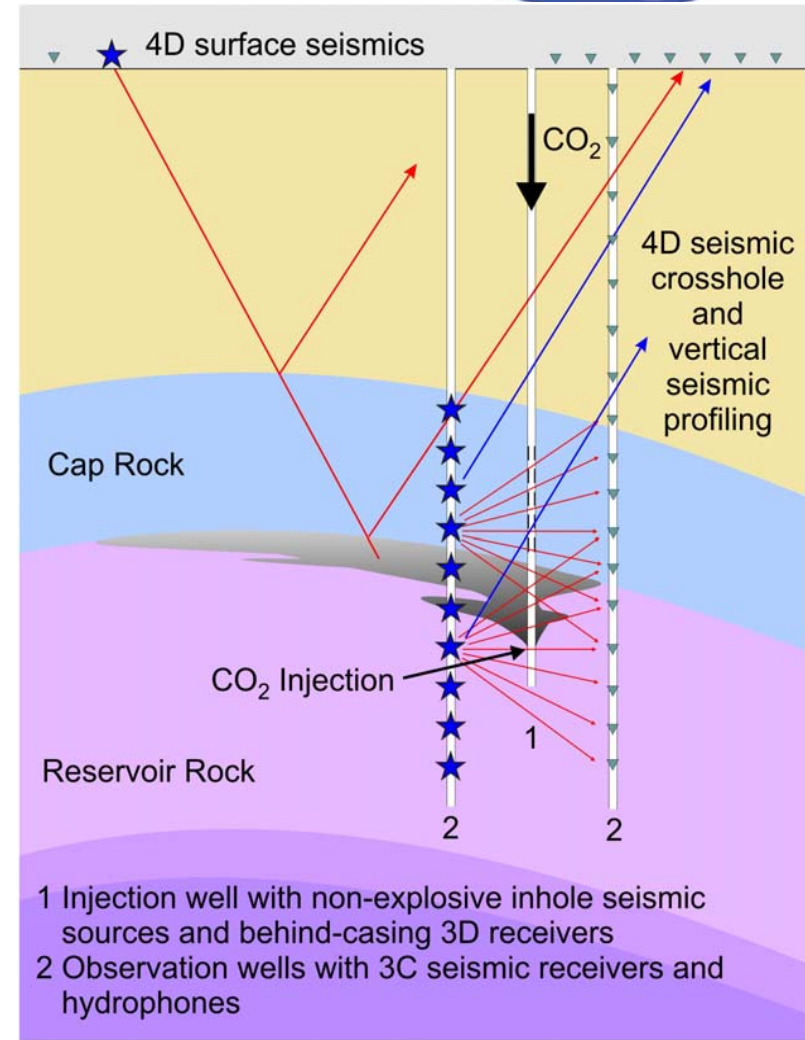
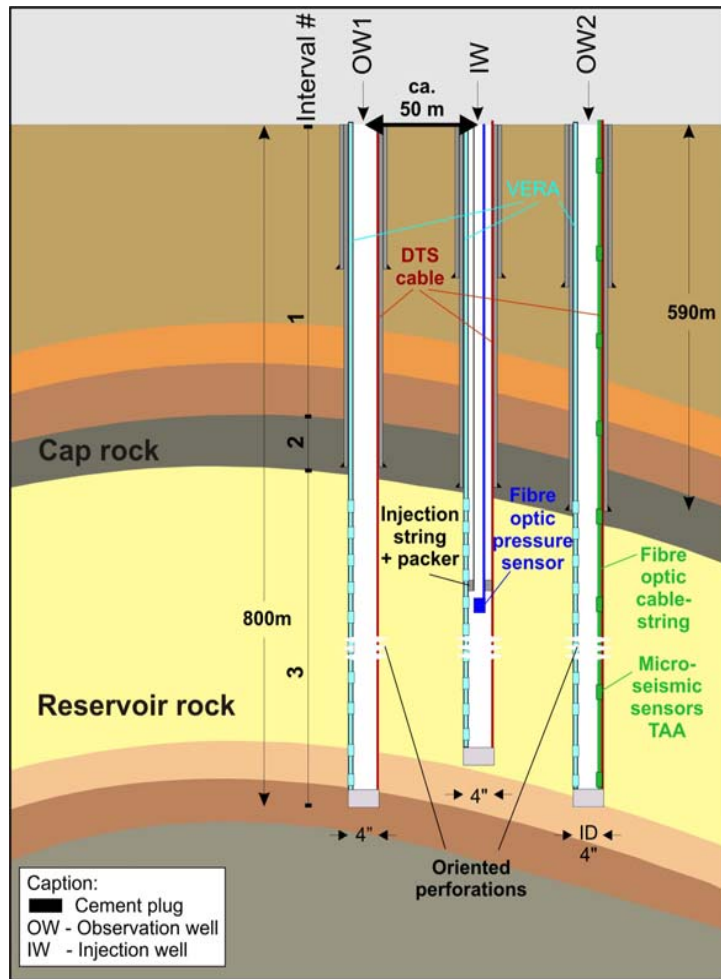
- to advance the understanding of science and technical processes of underground storage of CO₂
- to build confidence towards future European CO₂ geological storage
- to provide real case experience for the development of regulatory frameworks for geological storage of CO₂.





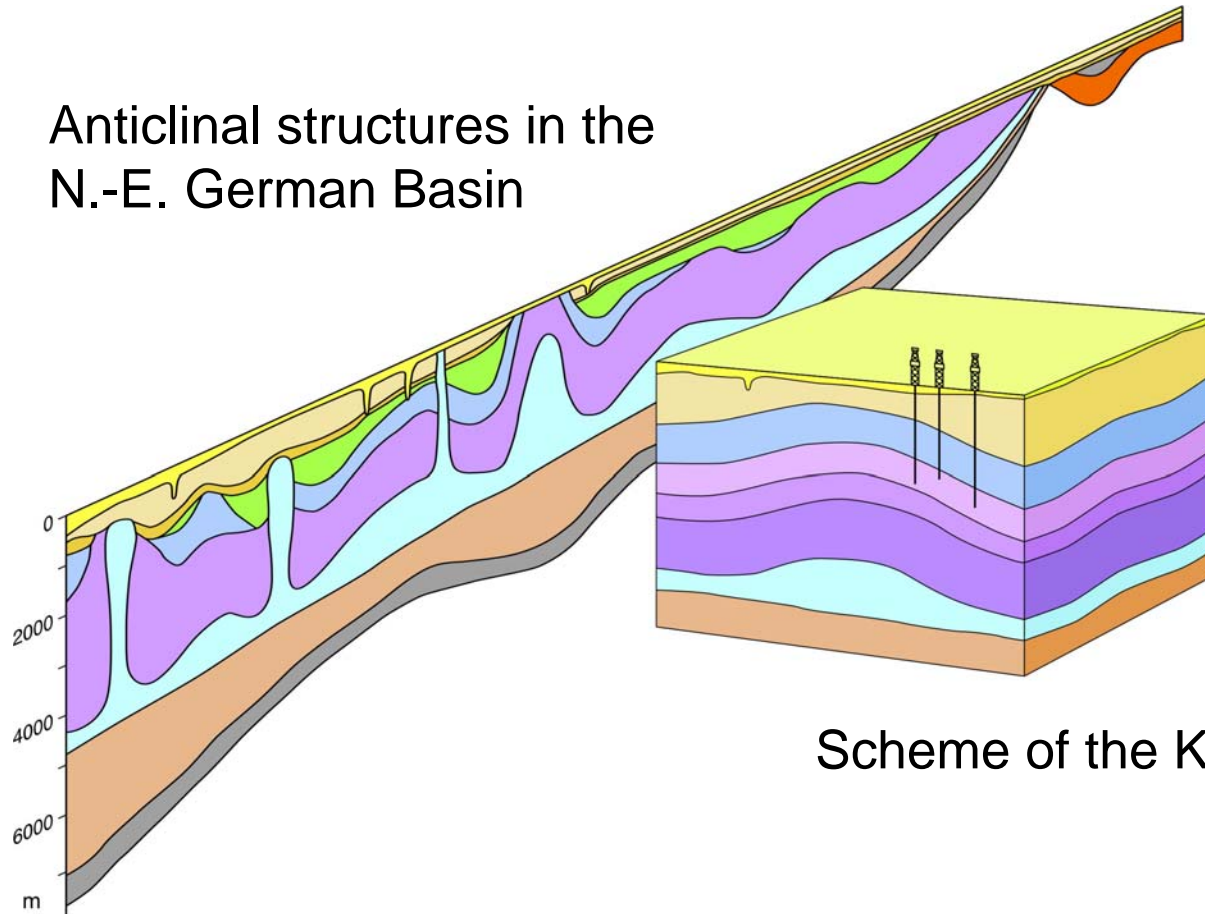
CO₂SINK components

Drilling and Monitoring Concept



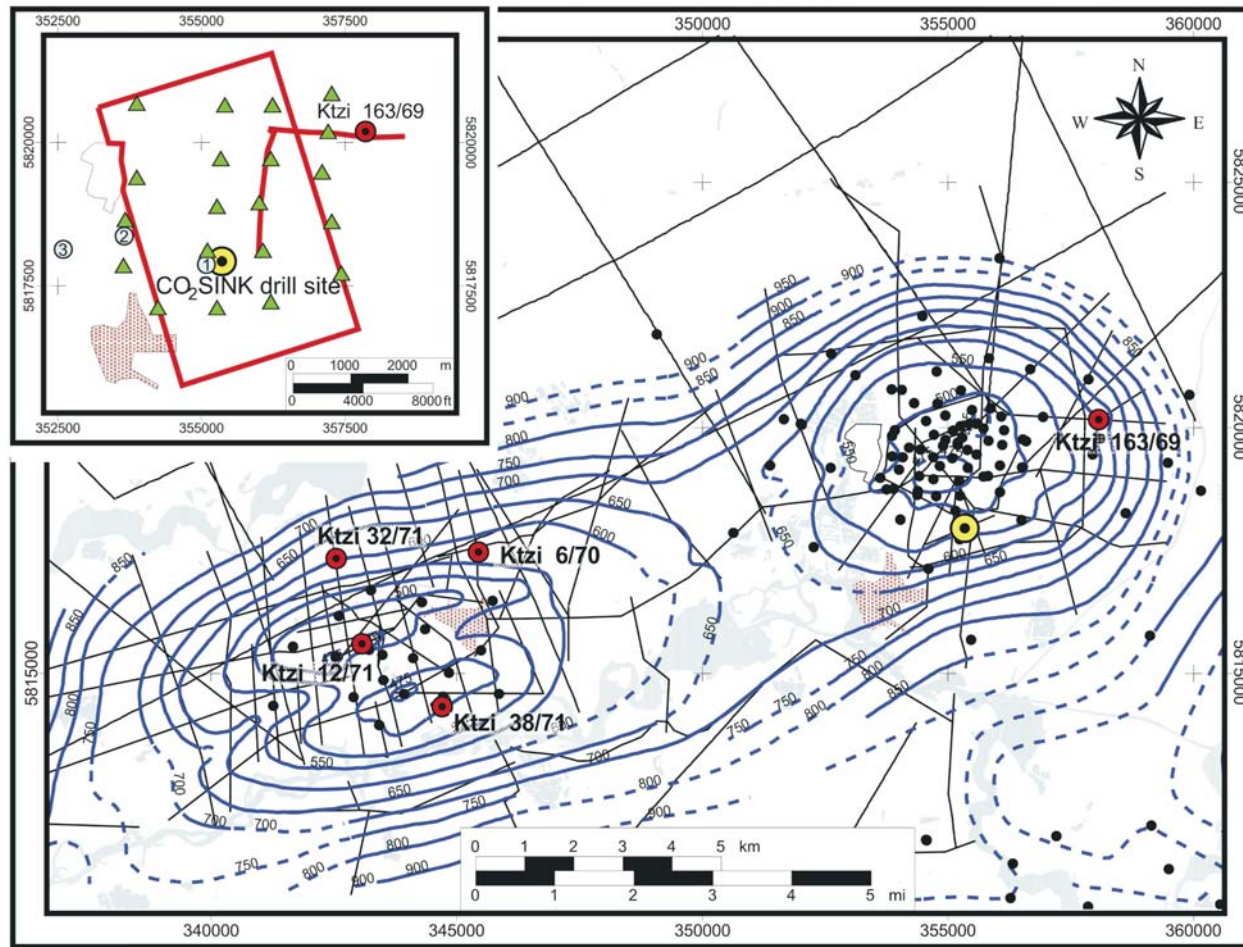
Baseline Geological Survey

Anticlinal structures in the
N.-E. German Basin



Scheme of the Ketzin Anticline

The Roskow-Ketzin Double Anticline



UTM33-WGS84

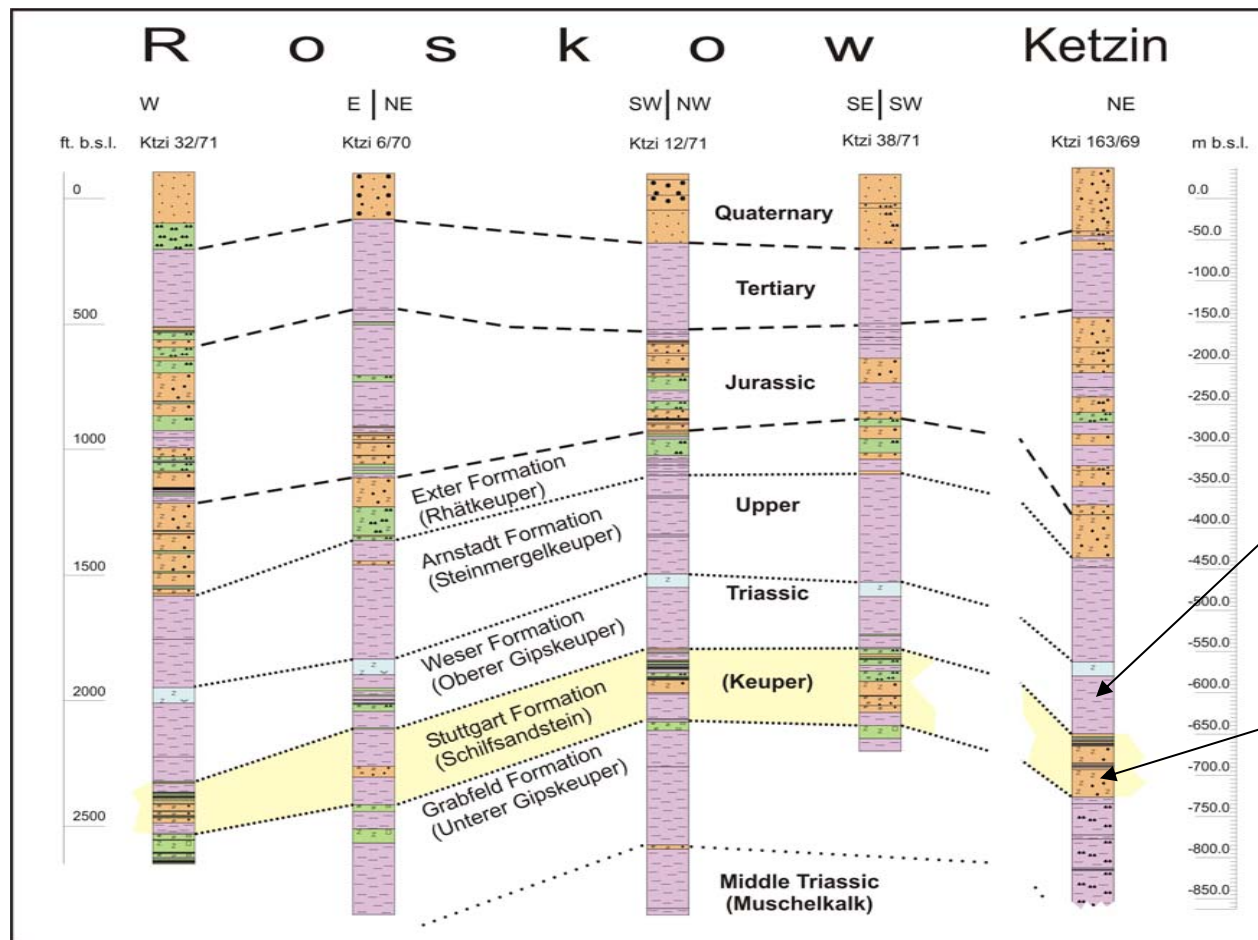
Depth of K₂ seismic reflector (about 80 m above CO₂SINK reservoir)

red lines: seismic pilot survey

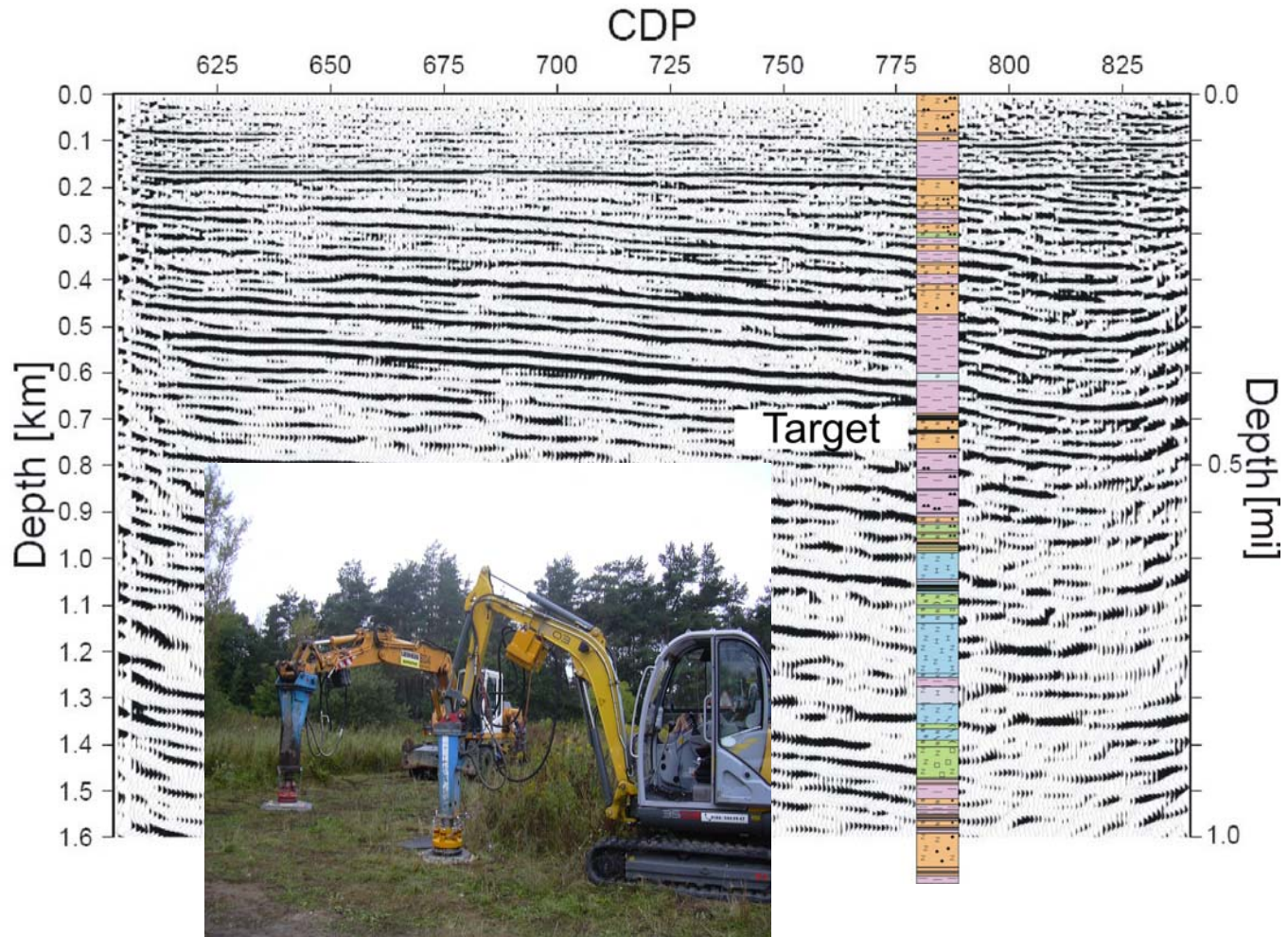
red frame: planned 3-D baseline survey

dots: exist.boreholes

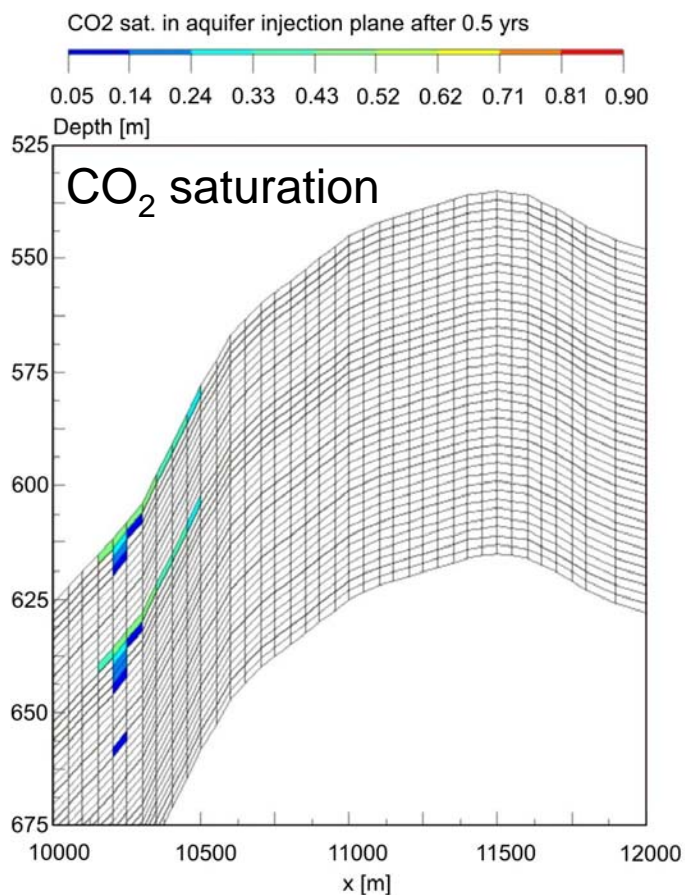
Stratigraphic-Lithologic Section across the Roskow-Ketzin Anticline



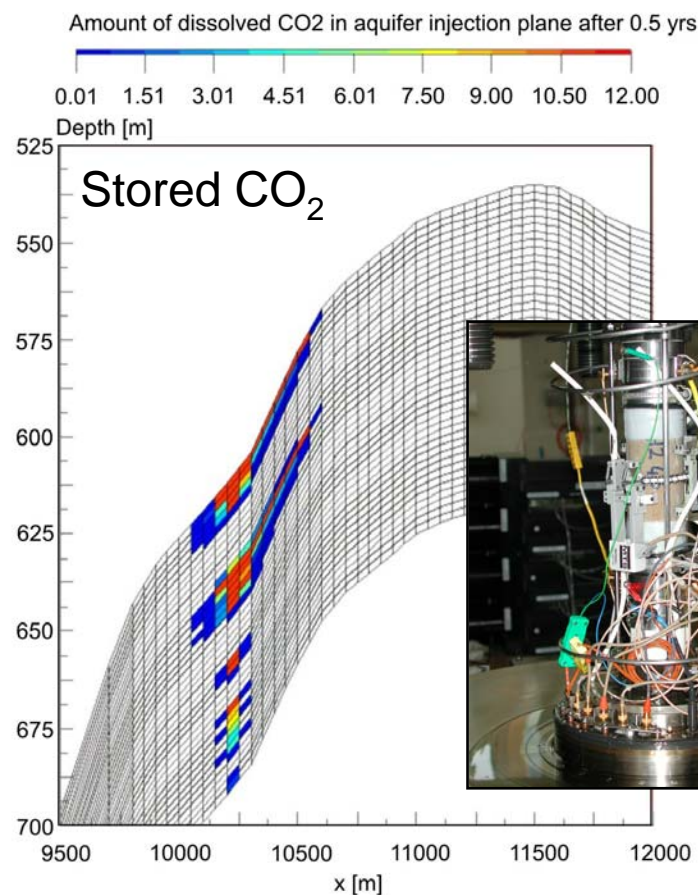
Seismic Pilot Survey



Numerical Predictive Models and Lab Tests



KETZIN_PFRBOX3_38X53X40 YZ plane 22 SGAS step 2



KETZIN_PFRBOX3_38X53X40 YZ plane 22 RS step 2

CO₂ saturation and dissolution in aquifer injection plane after 0.5 years



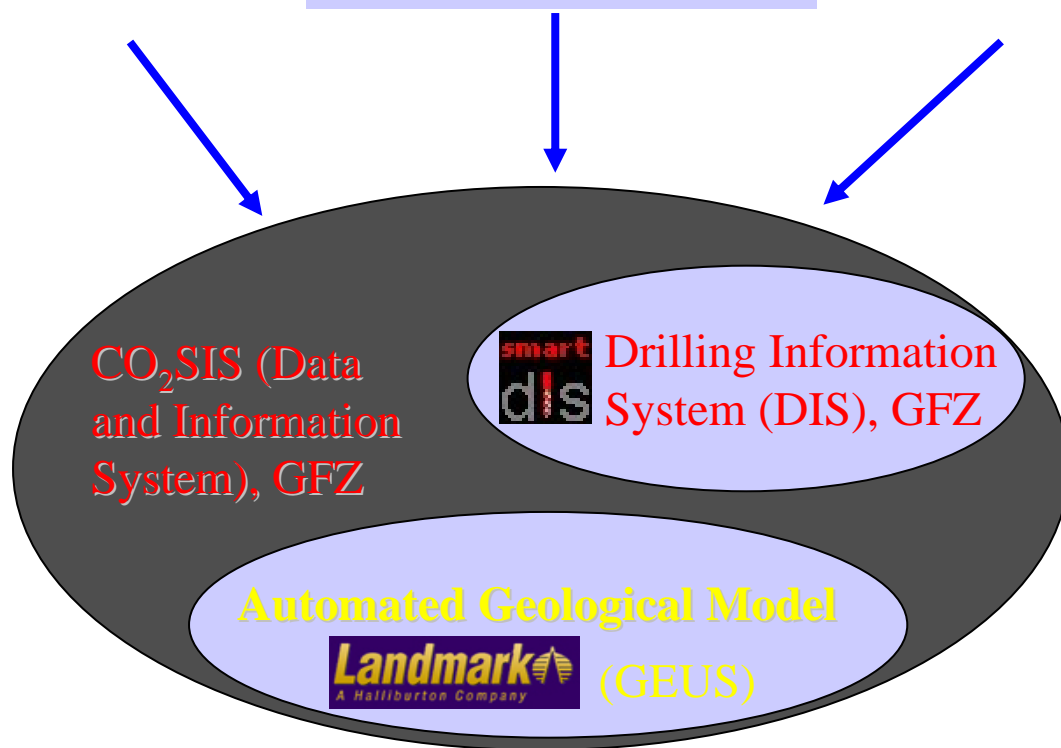
Data Integration and Dissemination System

PREVIOUS EXPLORATION DATA

- 2-D seismics
- facies maps
- boreholes
- strat./lith., petrophys.,
hydraul., thermal data

CO₂SINK DATA

- seismics
3-D, 4-D
- boreholes (one
injection well, two
observation wells)
- core analysis (poro/
perm., mineralogy),
logging, behind-
casing monitoring,
cross-hole tomogr.)



Member access
via WWW



Work in progress

- For risk assessment, the geological model will be complemented by a hydrogeological model of the shallow subsurface.
- Baseline 3-D seismic survey in Sept.-Nov. 2005: verification of the baseline geological model.
- Drilling of the boreholes will commence in June 2006.
- CO₂ injection will start in Oct. 2006.



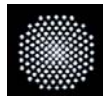
Project Partners



GeoForschungsZentrum Potsdam (D)
G.E.O.S. Freiberg Ingenieurgesellschaft (D)



Geological Survey of Denmark and Greenland (DK)
Mineral and Energy Economy Research Institute (PL)



Det Norske Veritas (N)

Statoil (N)

Shell International Exploration and Production (NL)



University of Stuttgart (D)

Vibrometric Finland (SF)



University of Kent (GB)

Uppsala University (S)

RWE Power AG (D)



International Energy Agency – Greenhouse Gas Programme (GB)

Vattenfall Europe Generation (D)

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