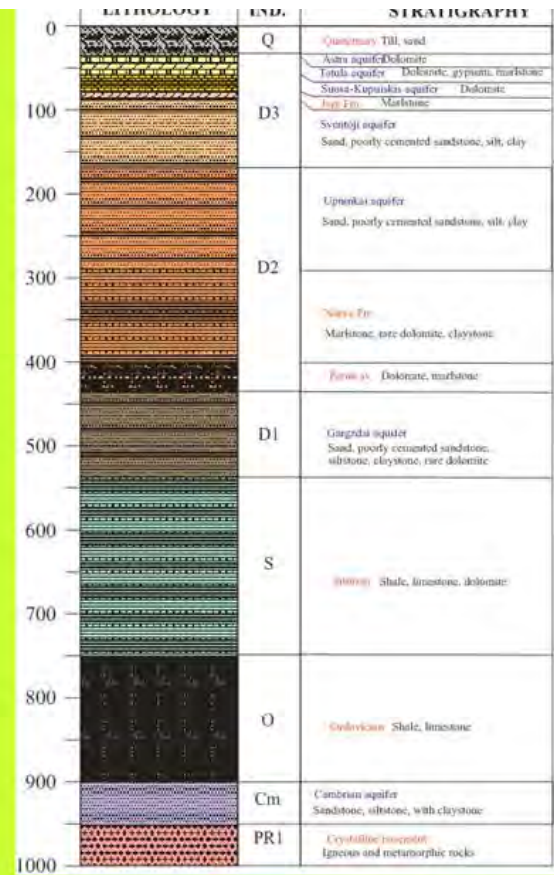
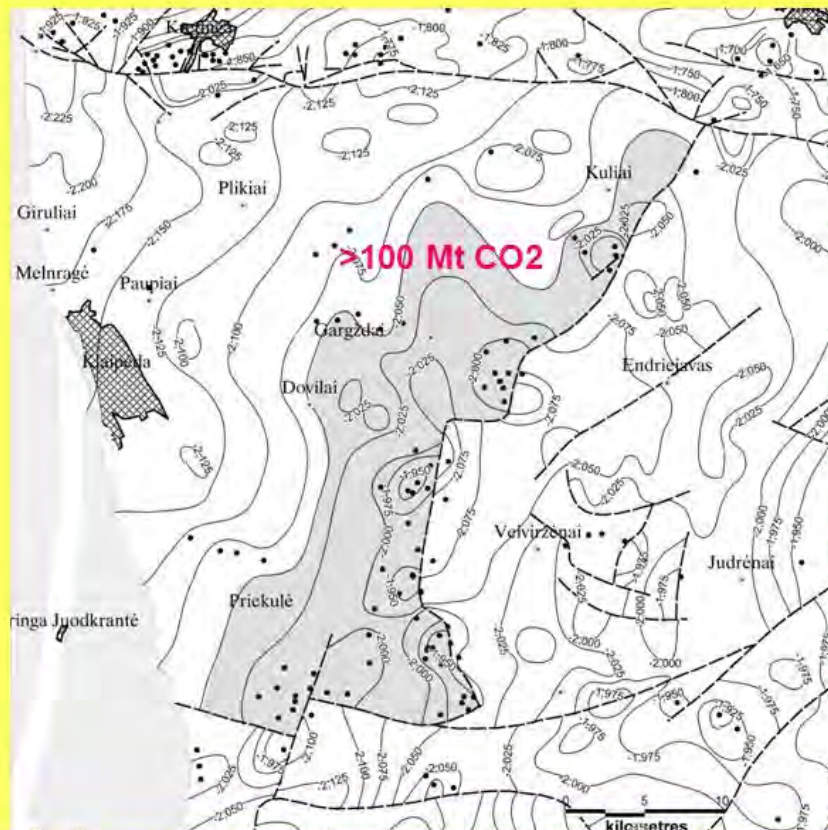


Vaskai structure, depths of top of Cambrian

Storage capacity 8 Mt
CO₂

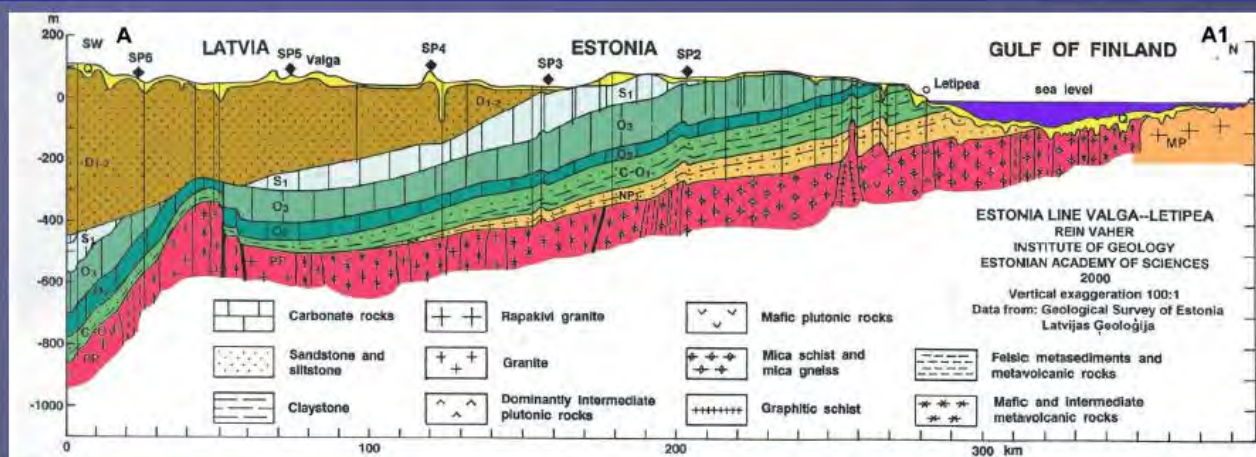
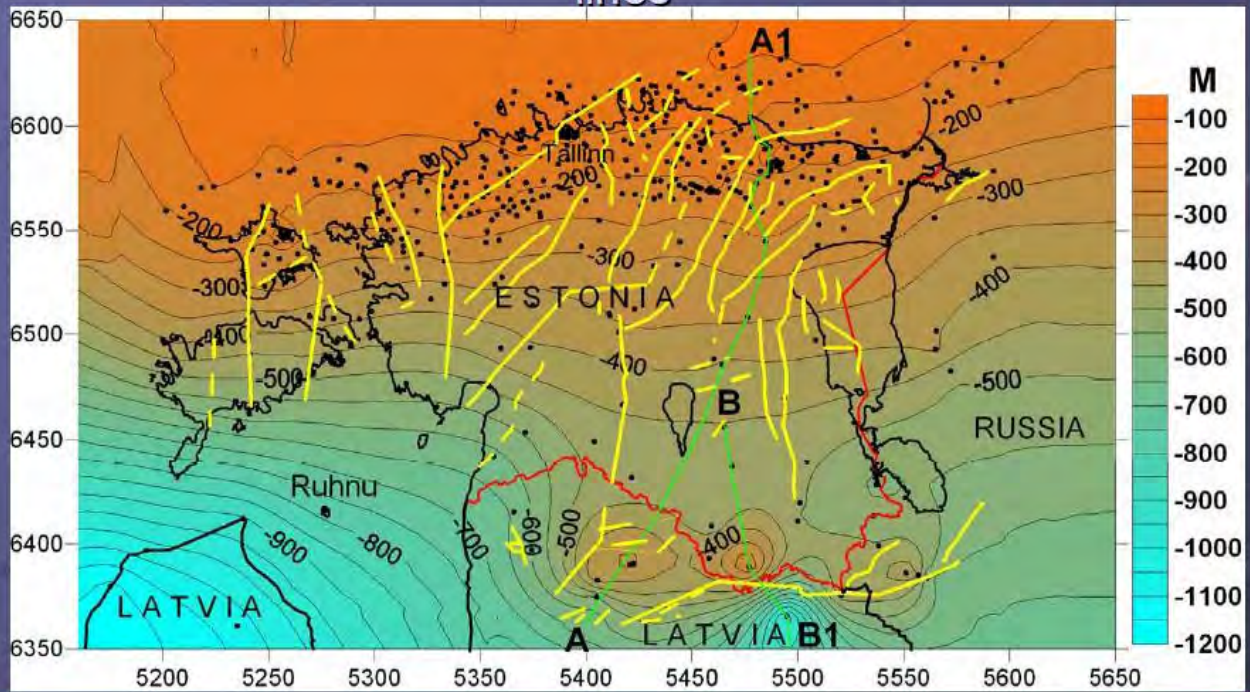


Stratigraphy of the Vaškai structure

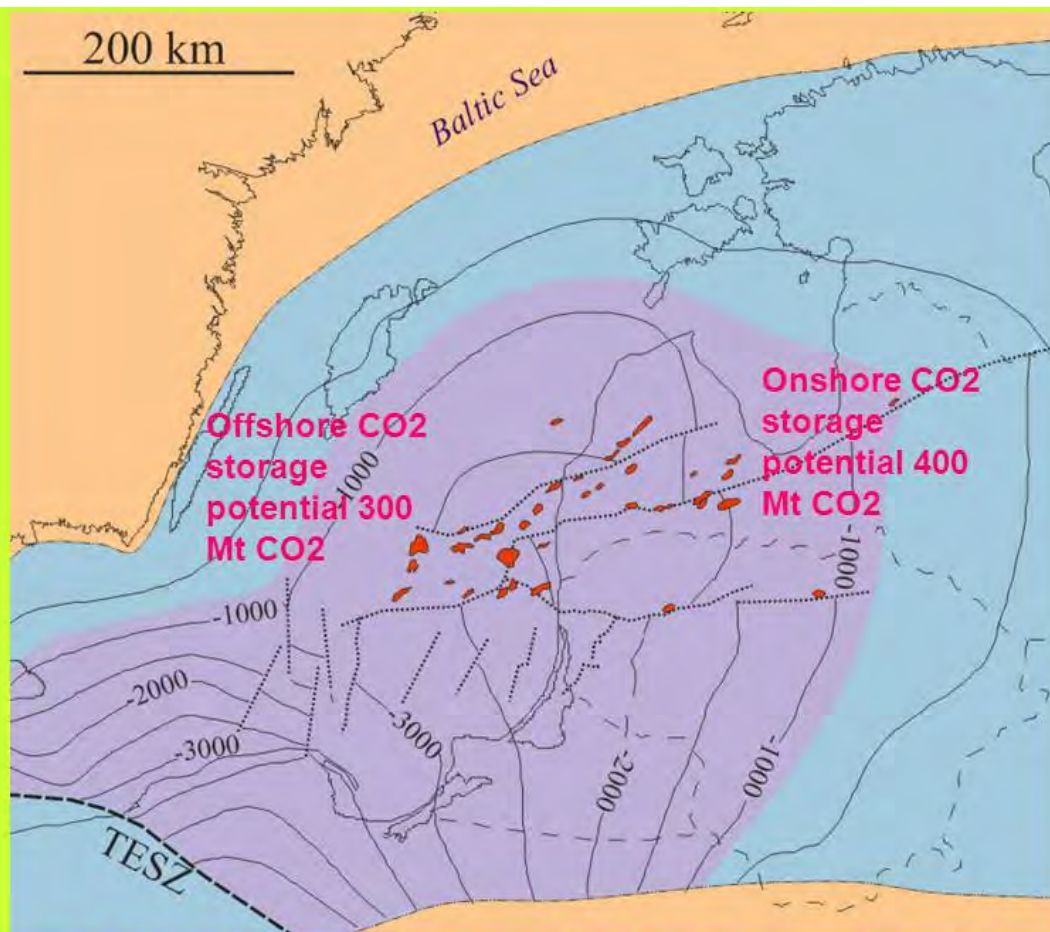


Structural map of Cambrian aquifer top. Shaded area indicates the area of Gargžda uplifts. Faults are shown as hatched lines

Top of the Precambrian basement is shown by contours.
Flexures above the basement fault are shown by yellow lines

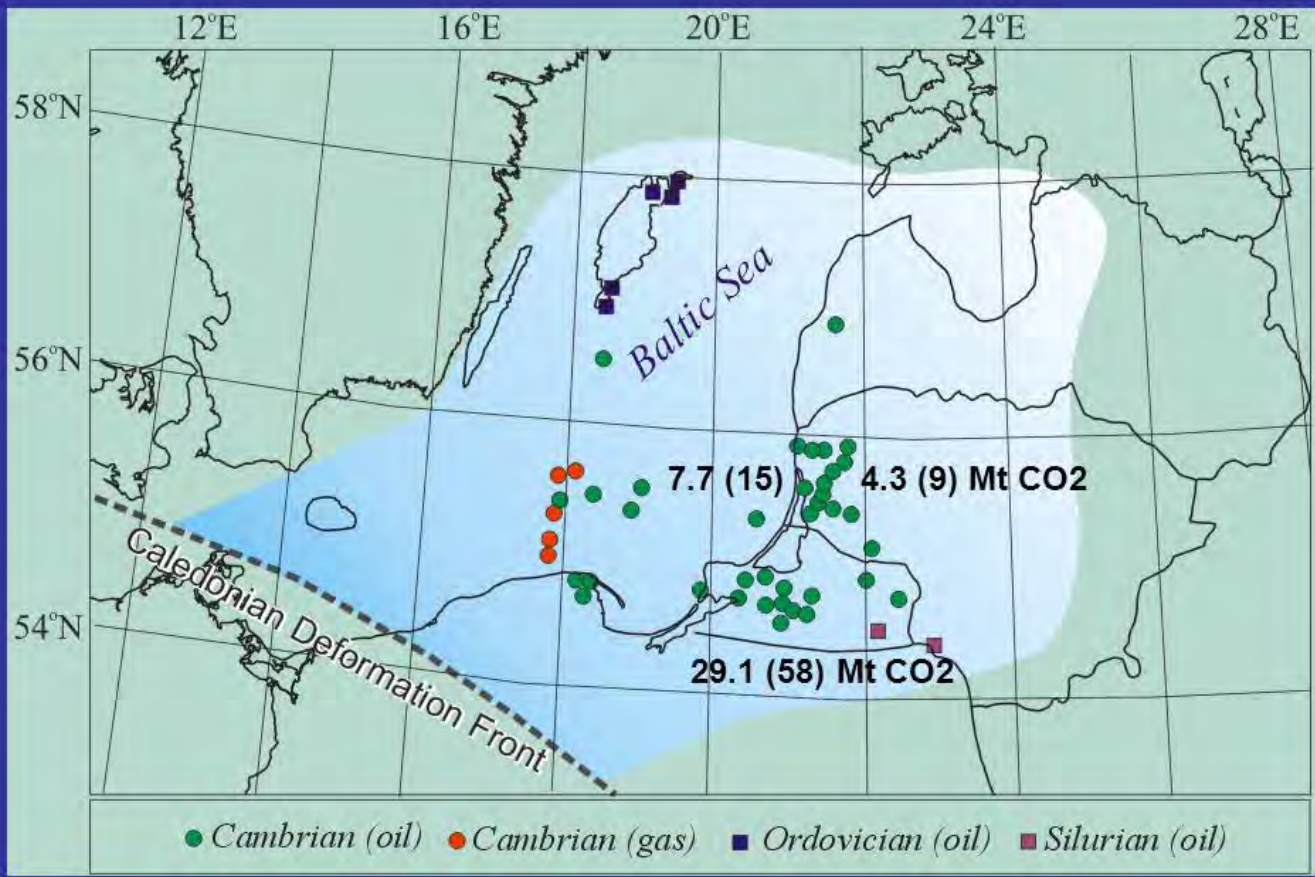


Section along Valga-Letipea line is modified after Puura & Vaher, 1997.
♦ – seismic shortpoint, Q – Quaternary, D – Devonian, O – Ordovician,
C – Cambrian, V – Vendian, PR – Palaeoproterozoic basement.



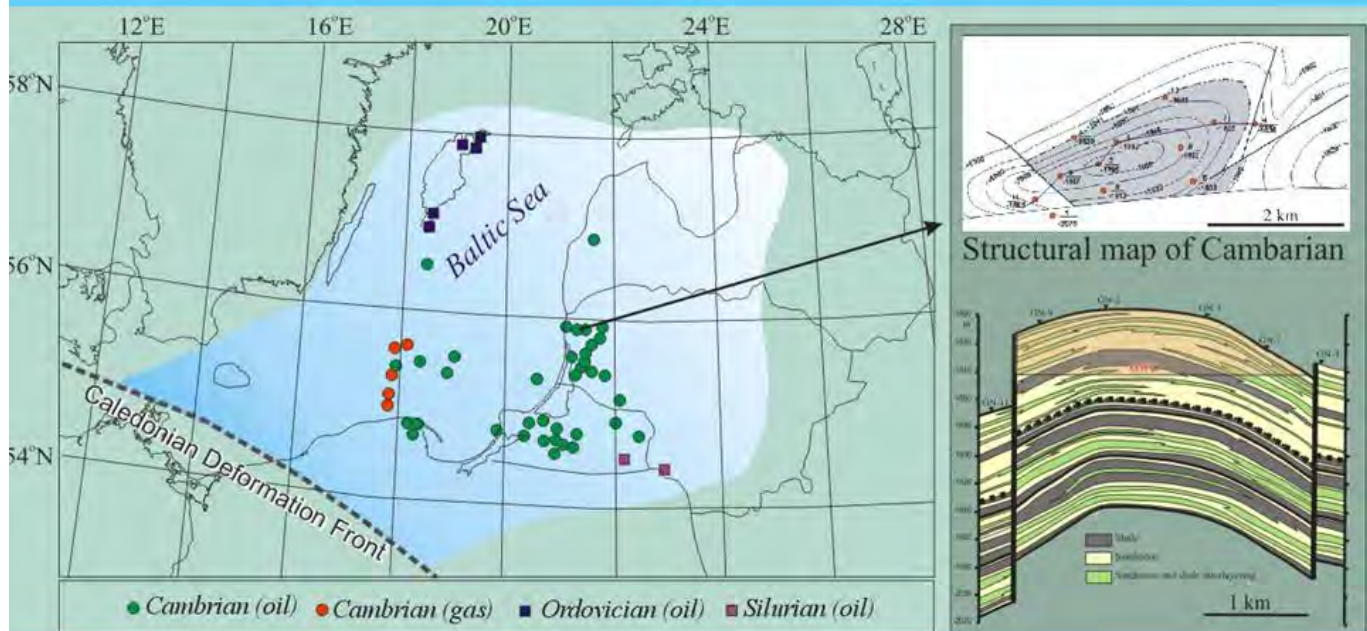
Major Cambrian aquifer saline water structures (34 in total)

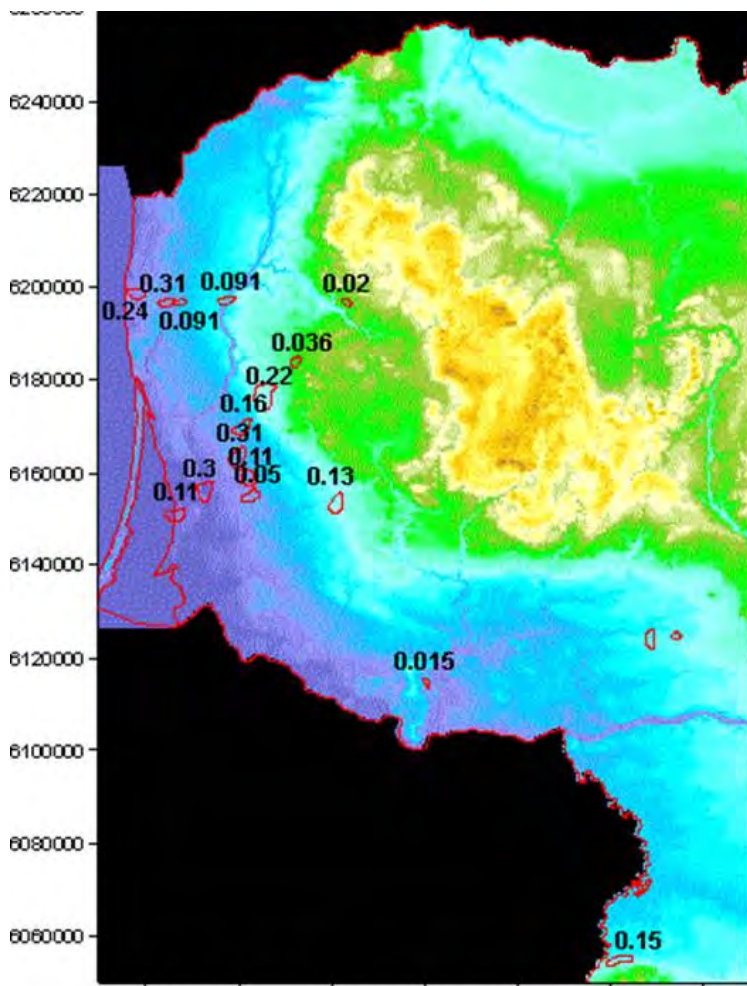
ALTERNATIVE STORAGE TECHNIQUES?



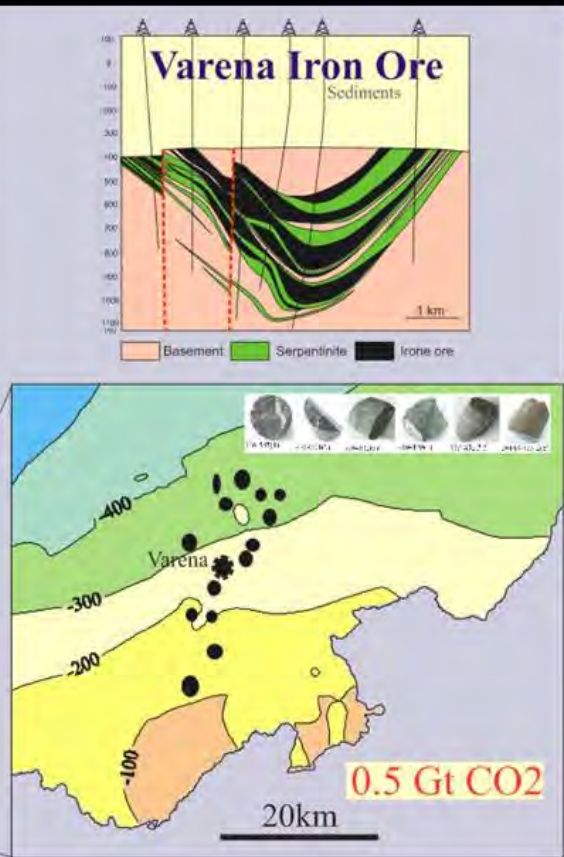
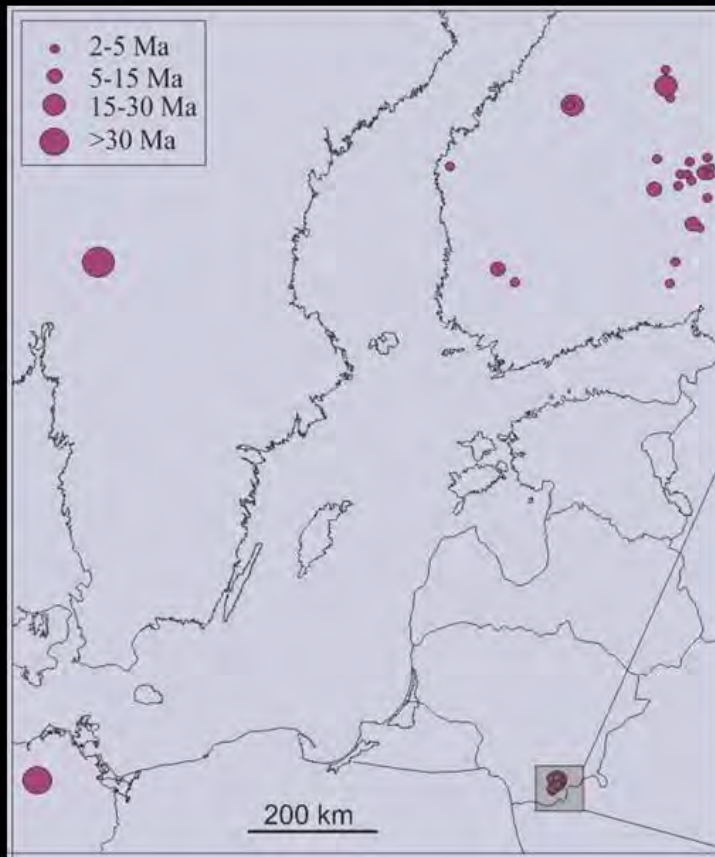
Oil and gas fields of the Baltic basin and CO₂ EOR (net-gross)

Oil fields are confined to small Cambrian structures





EOR incremental oil, Mt



CO₂ carbonation potential in Baltoscandian region

CONCLUSIONS

Only Cambrian deep saline aquifer is considered as the prospective reservoir for CO₂ storage

Baltic sedimentary basin comprises prospective structural traps as large as up to 58+74 Mt CO₂.

The total storage capacity is estimated 400 Mt CO₂ onshore and 300 Mt onshore (the latter estimate is rough). It covers more than 40 years emissions from major CO₂ source (350 years of needs of Latvia)

All the potential (structural) traps of deep saline aquifers are confined to Latvian territory with only little capacity estimated in Lithuania and no prospects in Estonia

Cross-border projects is the most likely solution for CO₂ storage in geological formations. Political decisions will be needed (and public acceptance!)

CO₂ storage capacity of oil fields is negligible; EOR economy does not seem viable in Lithuania oil fields, while there is a good potential in adjacent Kaliningrad and Polish oil fields.

Carbonation has a large potential, but technologies are at only early stage of development.