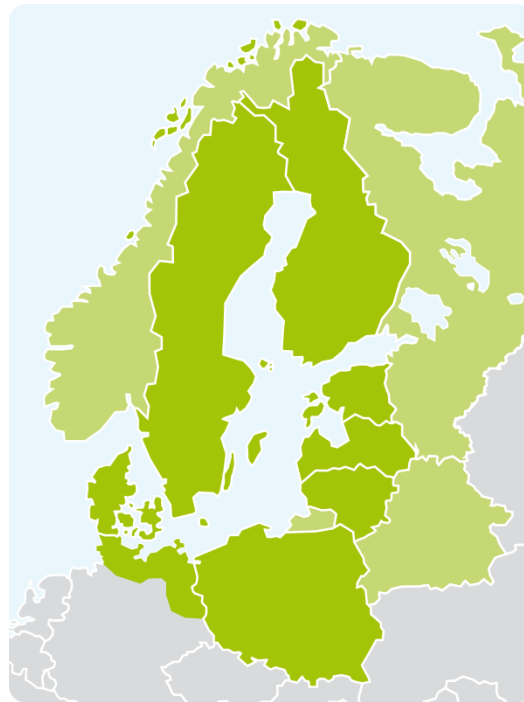


CO2 Geological Storage in the Baltic Sea Region – CGS Baltic

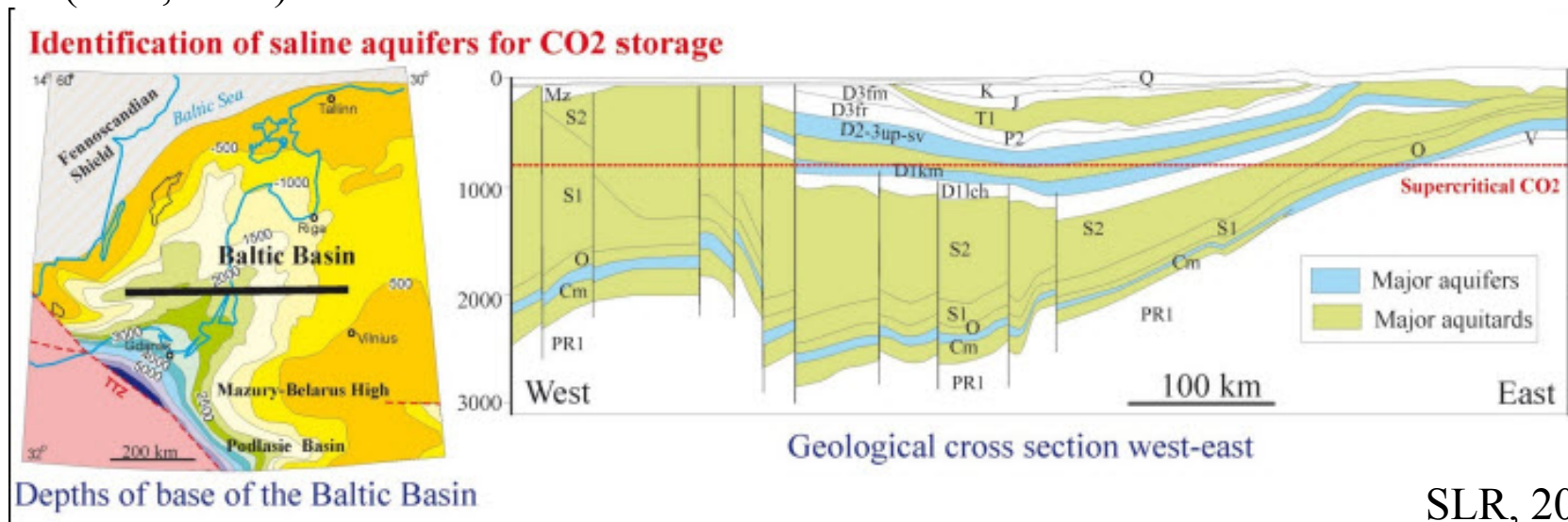


CO2 emissions in the Baltic Sea region

- The largest European total CO2 emissions from fossil fuel use and industrial processes are produced annually in Germany (some 850 Mt), while in Poland more than 300 Mt.
- The highest CO2 emissions per capita (three times higher than the world average equal to 4.9 tonnes) is registered in Estonia, caused by use of local oil shales for energy production. CO2 emissions per capita in Finland and in Germany are two times higher than the world average and in Russia they are 2.5 times higher.

CO2 storage potential in the Baltic Sea region

- Finland and Estonia are lacking storage potential in aquifers while e.g. Germany and Poland have large onshore CO2 storage potential but limited offshore
- Prospective offshore potential exists in **middle Cambrian aquifers** in Latvia, Lithuania, Sweden, Poland and Russia. Some storage potential in Devonian aquifers might also exist in Lithuania and Russia. Some of the potentially suitable geological formations are **bordering several countries** and many are still inadequately studied
- Previous studies have reported large theoretical storage potential but limited injectivity (SLR, 2014)



SLR, 2014

CGS Baltic project



- The CGS Baltic seed project intends to develop a project plan for a main project application during the next 12 months
- The initial aims are:
 - 1) gathering a wide consortium representing the region
 - 2) mapping of all relevant and publicly available data for later collection into a regional database and
 - 3) establishing contacts with the key industries and other stakeholders

CGS Baltic project



- The ultimate aims of the main project are:
 - 1) Mapping of the potential CO₂ storage sites and capacity in the Baltic Sea region
 - 2) Characterization of the key reservoir and cap rock properties
 - 3) Predictive modelling of the relevant underground processes in selected locations, including the cross-border scenarios
 - 4) Pilot field testing
 - 5) Communication and capacity building.
 - 6) Participation and contributing to developing recommendations and guidelines for CCS implementation in the Baltic Sea region that could also be useful for other transnational CCS projects

Very optimistic roadmap for CO2 storage in the Baltic Sea region



Storage Task Force 1/1/2015 - 31/12/2015

CGS Baltic seed project 19/2/2016 - 30/4/2017

Basin scale view of storage potential 1/1/2017 - 1/3/2019

Better characterisation and modelling of reservoir and caprock 1/1/2017 - 1/1/2021

Storage pilot project 1/1/2018 - 31/12/2021

Characterisation of commercial storage sites 1/3/2018 - 31/12/2029



GTK

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4/27/16

Thank you for your attention!

Reference:

SLR, 2014. Final Report on Prospective Sites for the Geological Storage of CO₂ in the Southern Baltic Sea.

<https://www.energimyndigheten.se/Global/Forskning/Br%C3%A4nsle/CCS%20-%20BASTOR2/140324%20%20BASTOR%20Final%20Report.pdf>

For further information on CGS Baltic seed project:

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Part-financed by the
European Union

