

# Deep geothermal

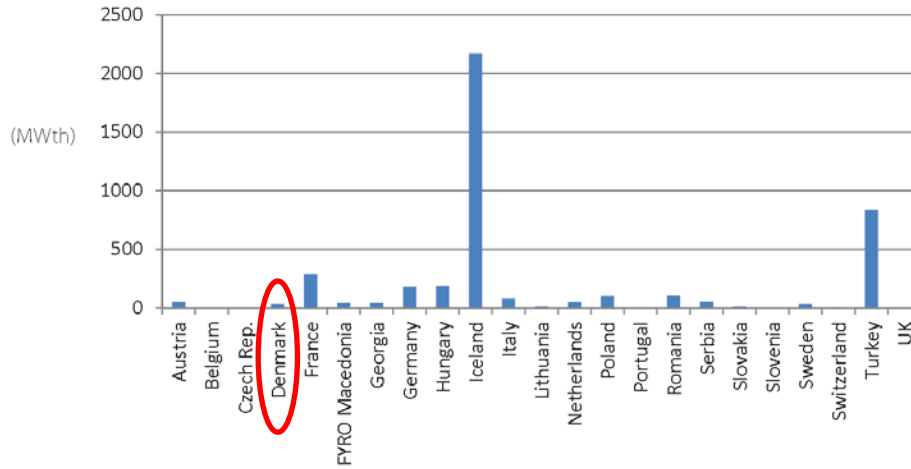
- relevant research topics from a Danish perspective

Den Haag, 28 May 2015

Søren Berg Lorenzen

Danish Geothermal District Heating

# Geothermal Denmark in a European context

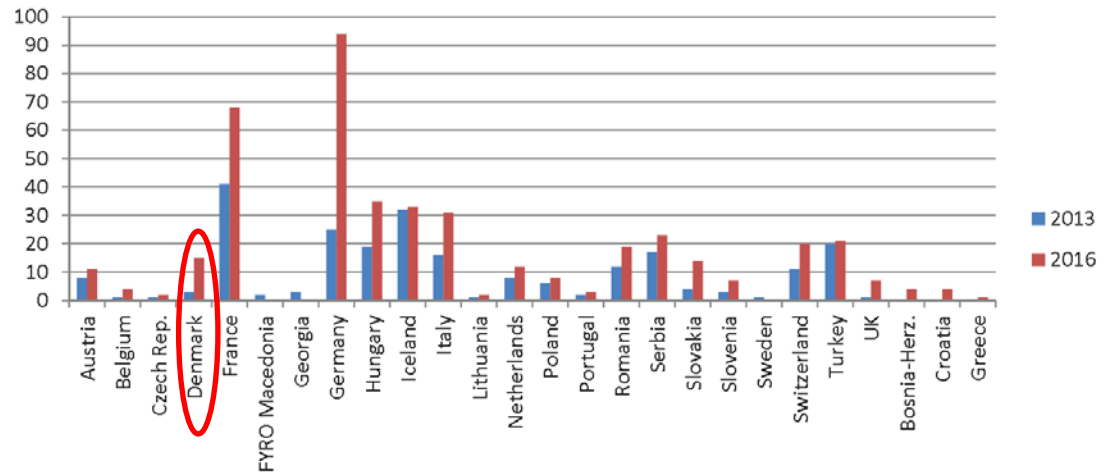


Today's top players:

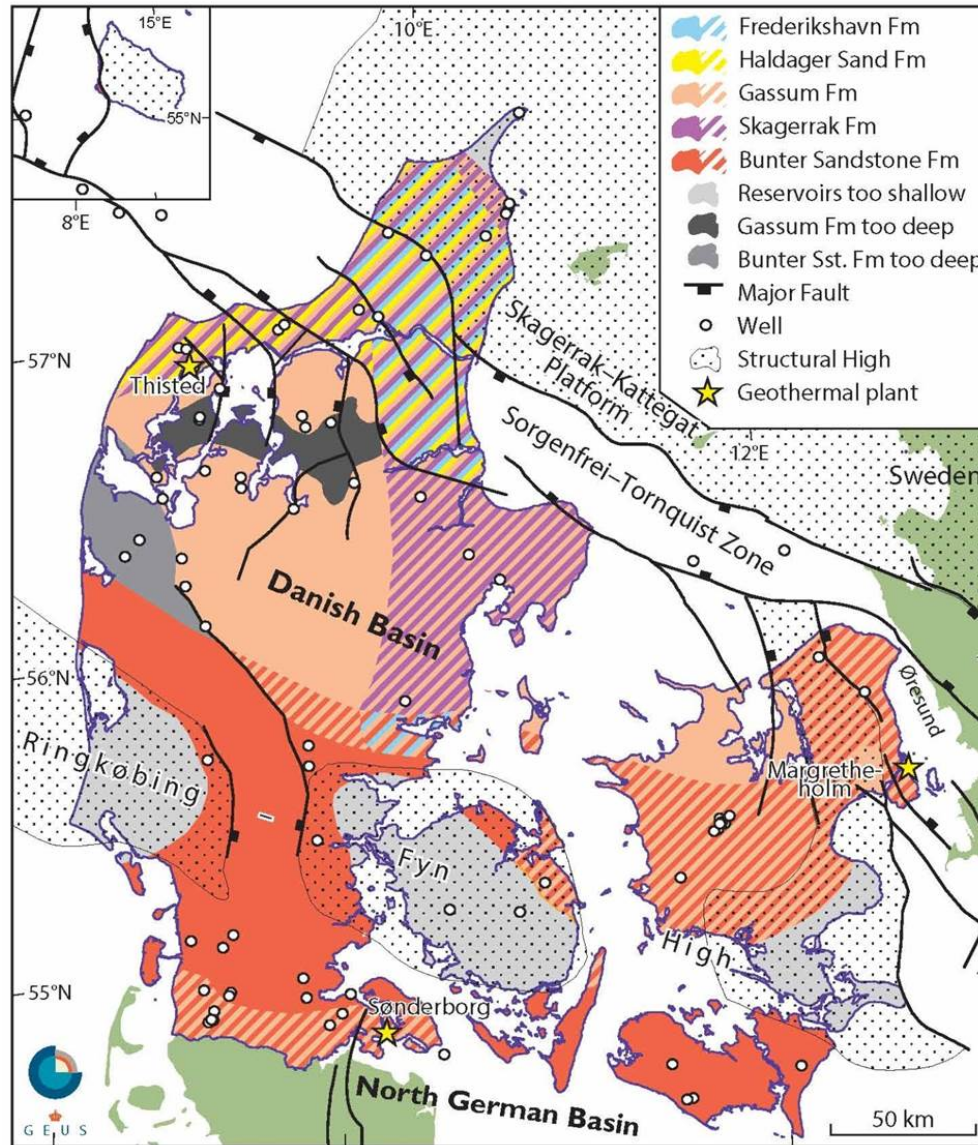
- France
- Germany
- Hungary
- Iceland
- Turkey

The hot markets:

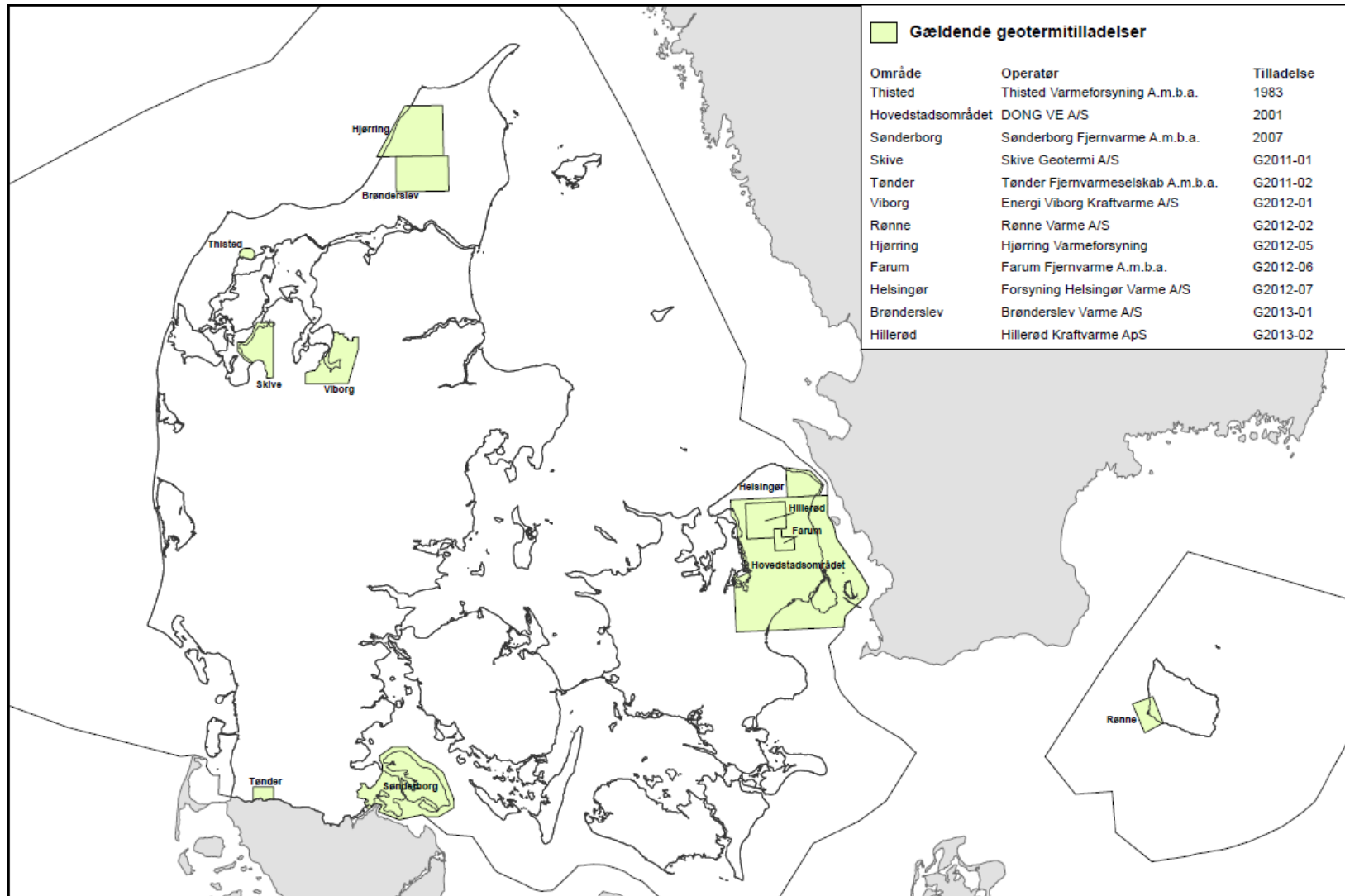
- France
- Germany
- Hungary
- Denmark??



# Potential reservoirs in Denmark

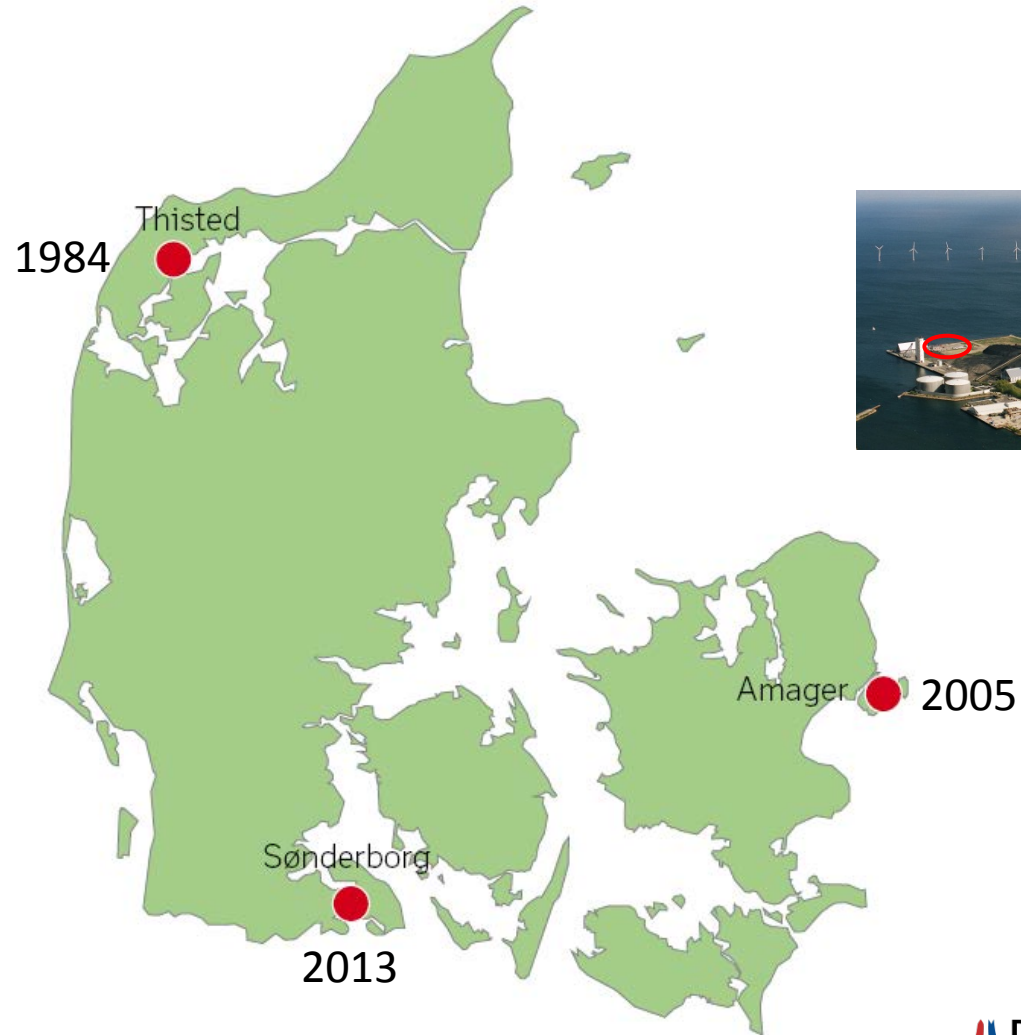
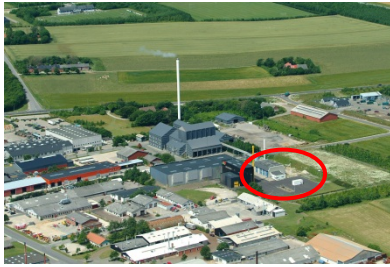


# Licenses (May 2015)

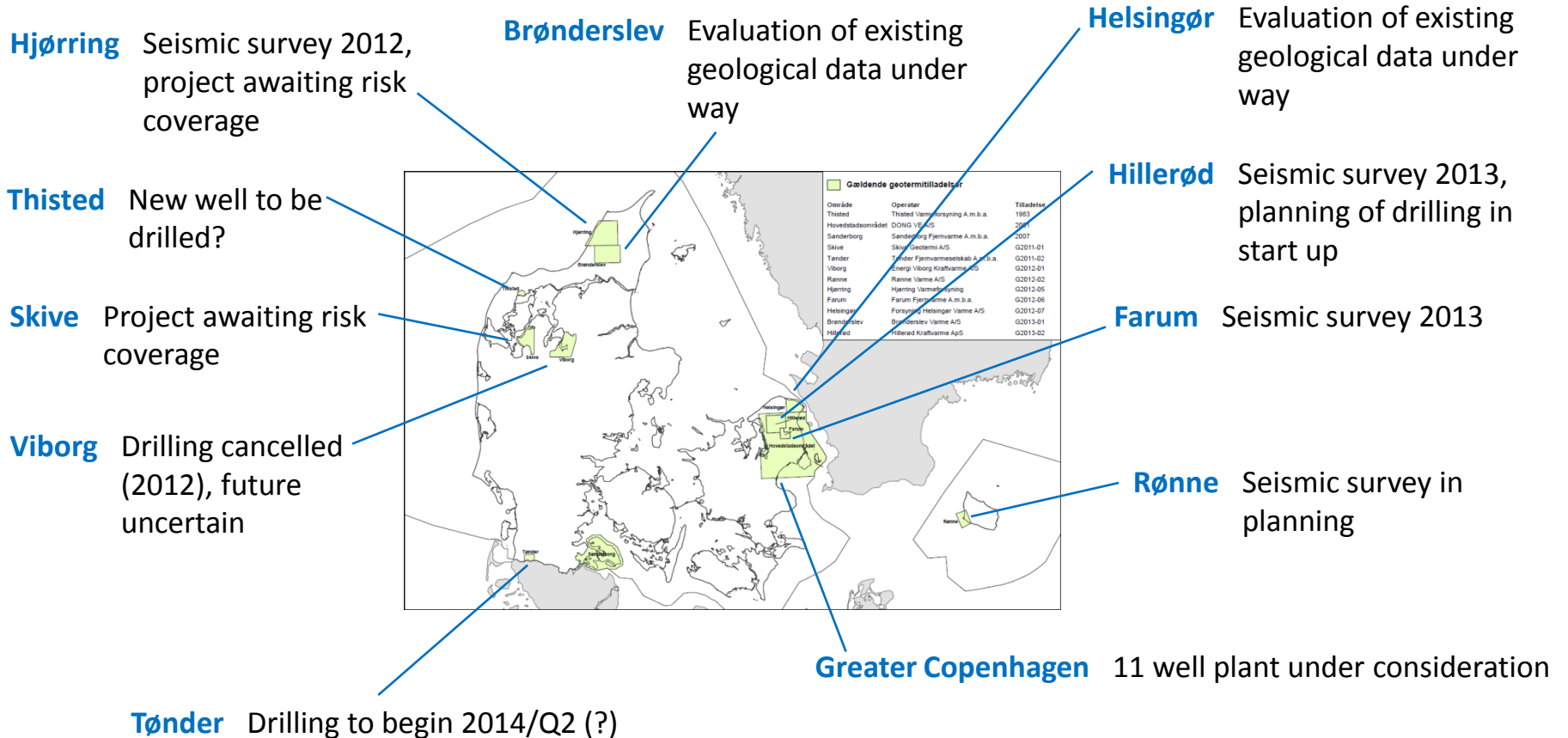


Source: The Danish Energy Agency

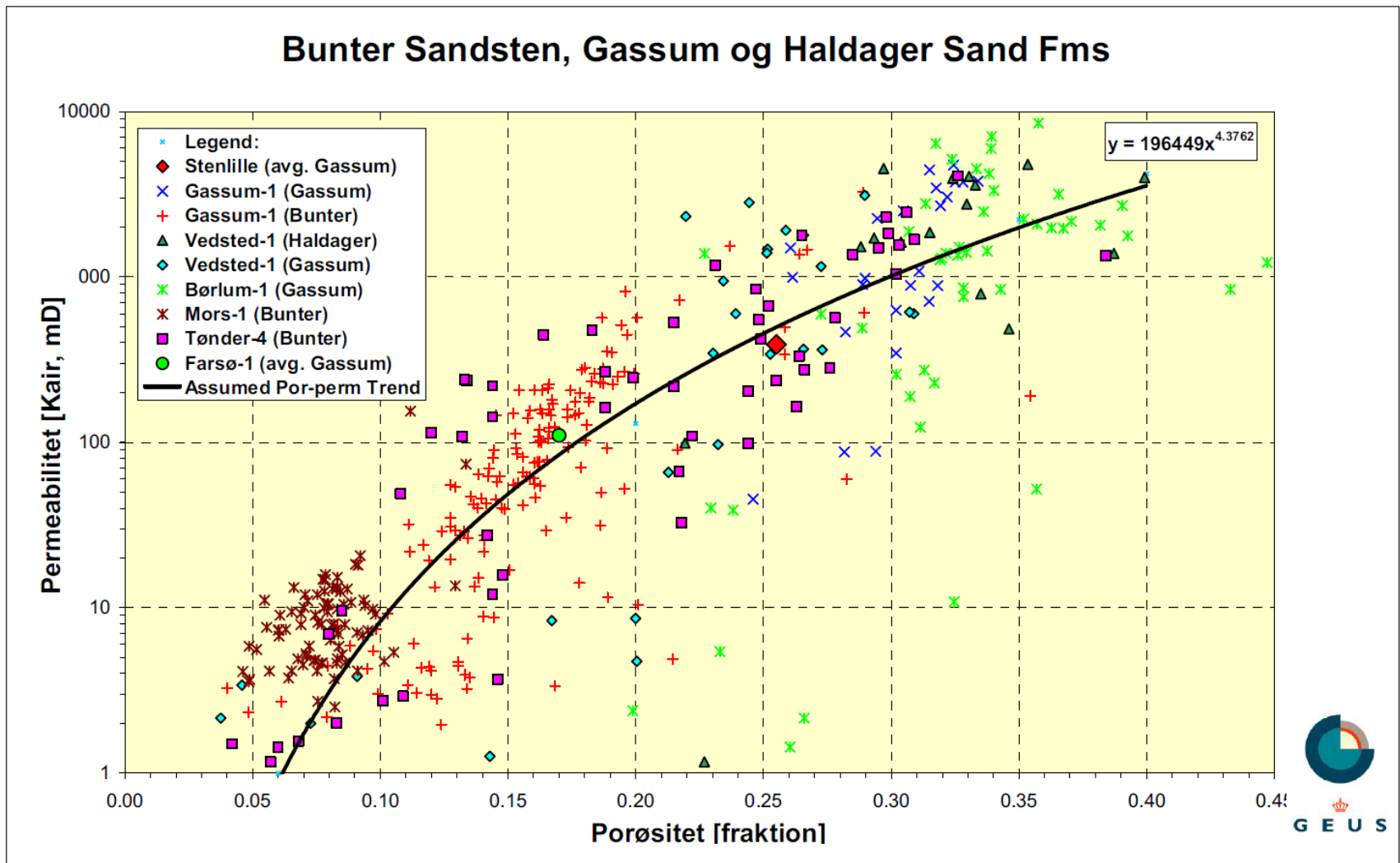
# Geothermal energy plants in operation



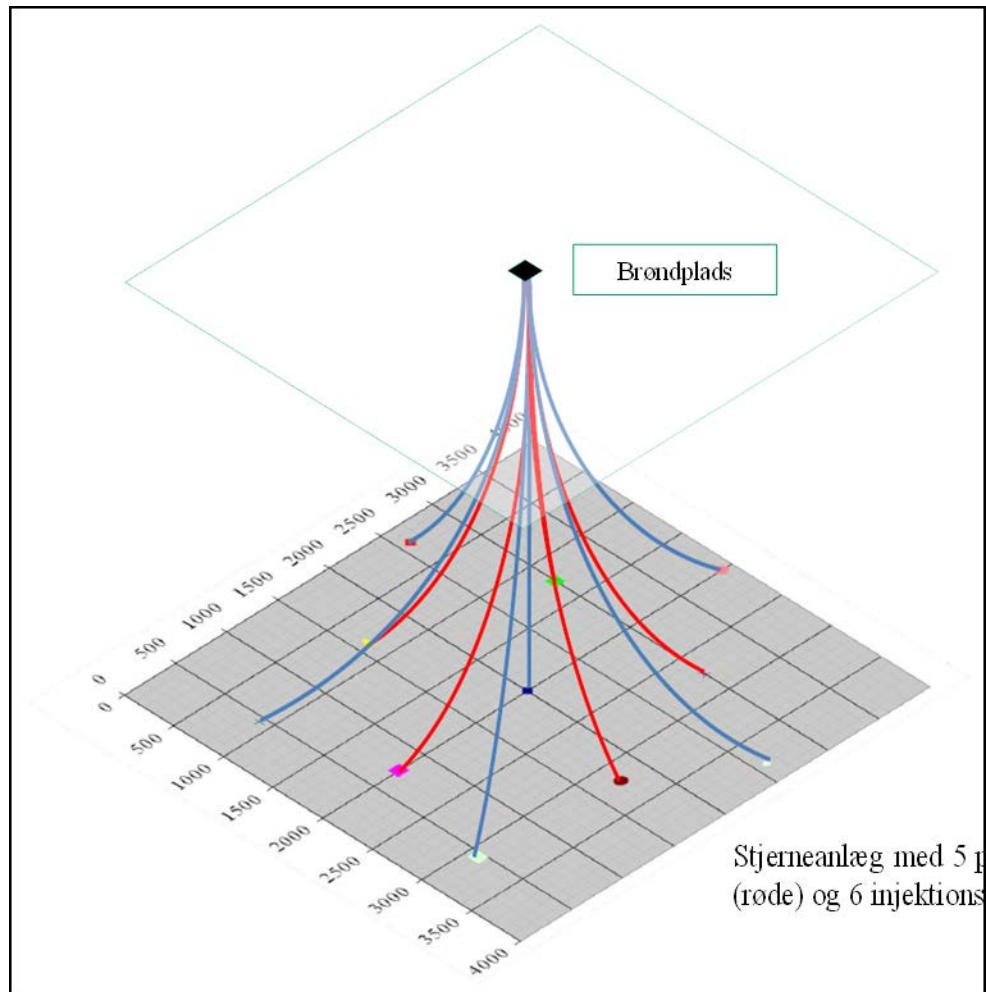
# Geothermal projects under development



# Predictability of reservoir properties



# (Seasonal) heat storage in geothermal reservoirs



- Ongoing scientific project – results will be publicized this year
- Should be followed by demonstration project

(Most) interesting questions to be answered:

- How will the sandstone reservoir, over- and underlying and interlayered claystones react to the higher temperature??



# Best practice completion

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Screens and gravel pack

Prepacked screens

Slotted liner

Perforations

~~Open hole~~



# Injection problems – causes and remedies

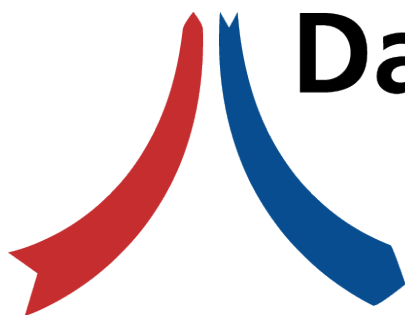
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Water chemistry

Scaling

Corrosion



# Danish Geothermal DISTRICT HEATING

Please visit

[www.geotermi.dk](http://www.geotermi.dk)

for more information og news on  
geothermal energy in Denmark