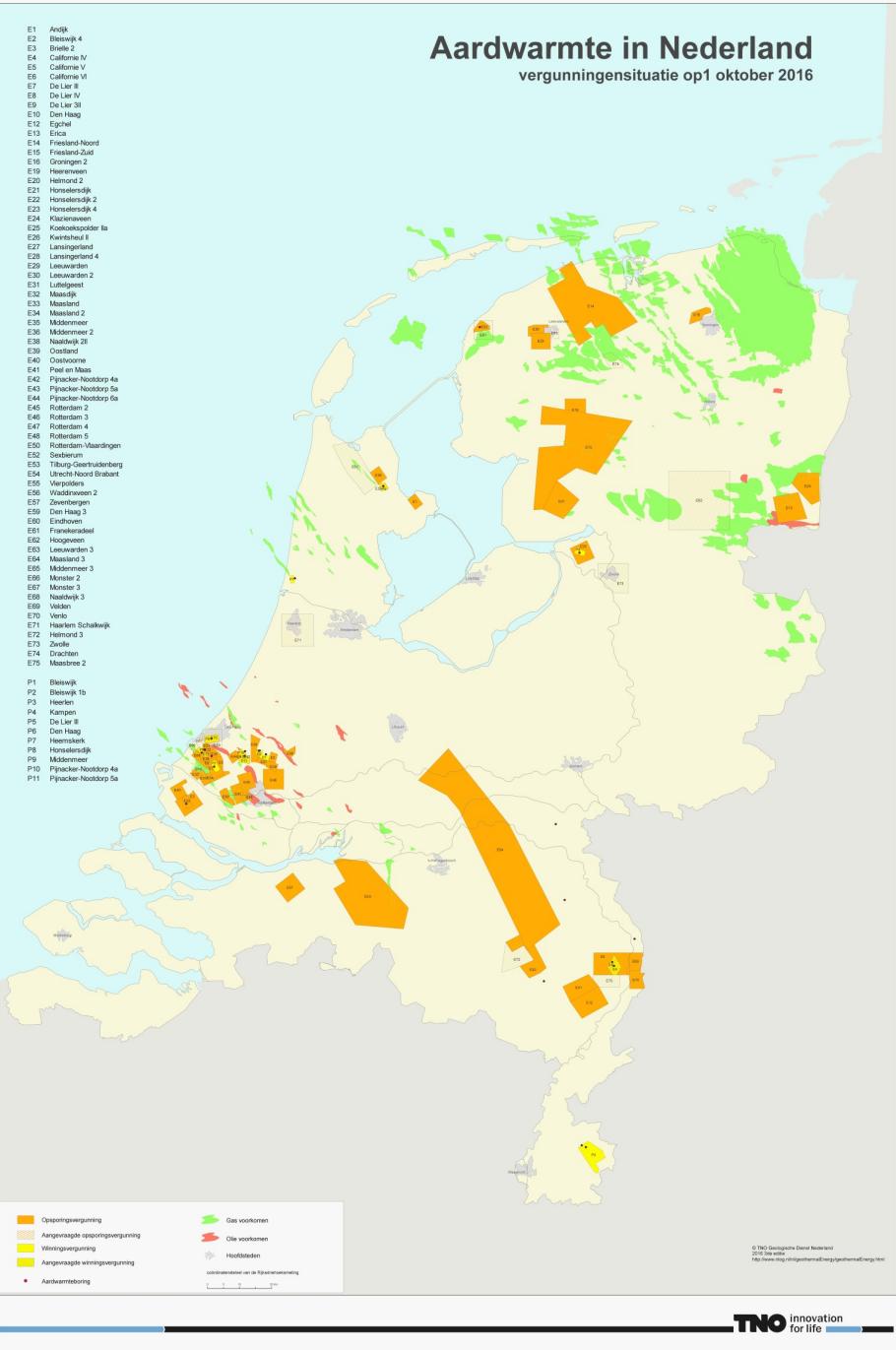


Dutch geothermal, *present and future* *business*

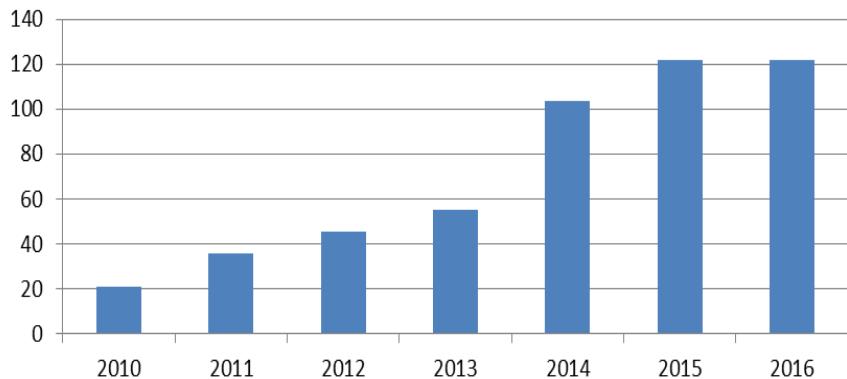
Frank Schoof, Platform Geothermie
Oude Delft 37, Delft
06 1323 0736
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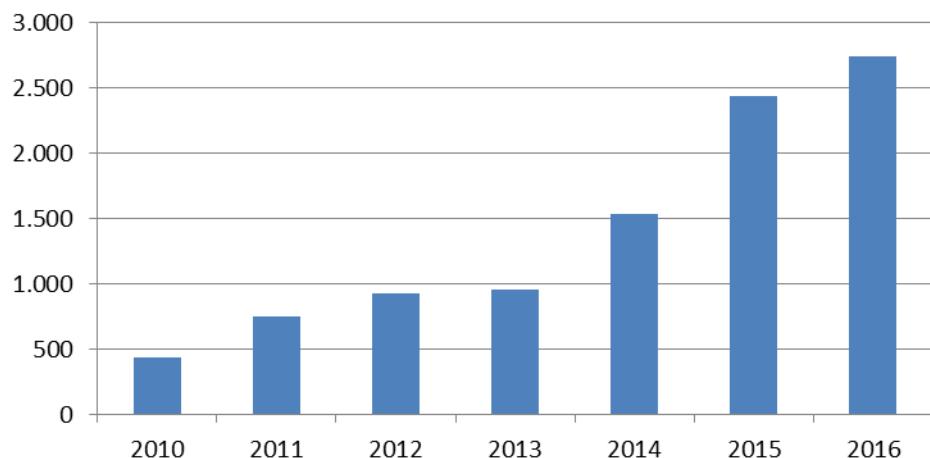
Overview of exploration and production licenses

- Clear trends
 - No license ≠ no potential!
 - (Ultra) deep geothermal starting to emerge...

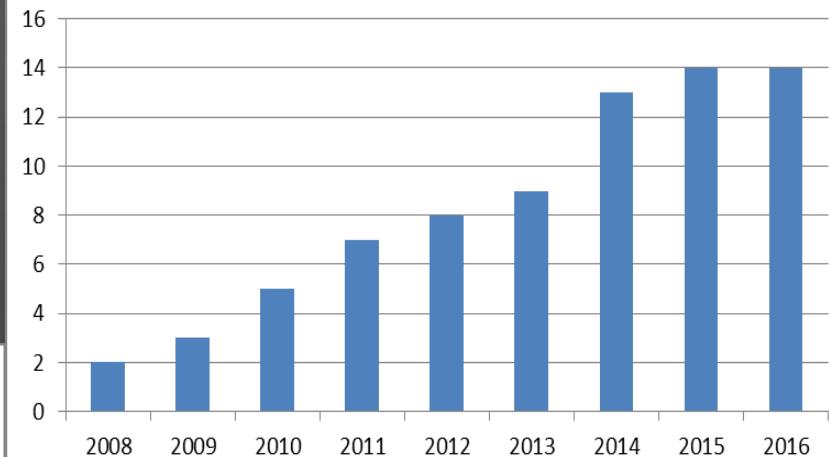
Capacity (MWth)



Production in TJ/yr



number of doublets



Number of doublets: only operational systems from 2016 onwards!

Number of open GSHP's
in the Netherlands: 1.500?*

88 mln m³ of natural gas/yr

The sector



- DAGO, association of operators, 14 + 8
- Kennisagenda: 3rd year, 10+ reports
- Huge challenges concerning
 - growth
 - public opinion on ‘mining’
 - ‘position’ as new energy-source (p.e. ground-water discussion)
- Legal structure far from optimal for growth



(Boorgruis-analyse)

Main drivers

- Meeting Paris-goals/ Energy Agenda from government
- Independence of import
- Stable energy-prices

Challenges

- Increase in projects 2 => 5 => 20/yr
- ‘Ultra deep’
 - District heating
 - Industry (F&B)
- Build-up of experience underway
- Risk- reduction, risk reduction, risk reduction!

Summary:

- Risk reduction
- Step-by-step development
(deeper, cheaper, care-free)
- Developments in societal attitude and (thus) regulations
- Push is needed if Paris and (other) Dutch sustainable energy goals are to be met



(Mijnwater, Heerlen)

Without customers....