

Donnerstag, 24. Juni 2021  
Kongress 1 - Tiefe Geothermie  
14.50-15.20 Uhr

## **Technologies and potential of deep closed heat exchangers in Germany**

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As an industry one of the challenges we have faced, in the development and acceptance of geothermal energy, is that we have been limited to permeable aquifers (or creating artificial permeability) or tapping into volcanic hotspots.

And yet, at sufficient depth, geothermal energy is available everywhere. Fortunately, a range of proven and emerging technologies could finally make geothermal energy scalable by eliminating the need for a hot permeable aquifer.

This paper will assess the viability of one of these technologies, Eavor-Loop™, by comparing the field results, from the recently completed full scale trial in Canada, to those predicted in the thermodynamic models.

Extrapolating from this point the paper will go on to explore the potential impact of the Eavor-Loop™ technology in Germany over the next 30 years, looking at:

- Carbon emissions reductions
- Employment
- Renewables growth
- Overall energy balance