



Gemeente Brummen



region arnhem
nijmegen



Geothermal challenges from a municipal perspective

June 20



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17-21 JUNE 2019
EU SUSTAINABLE
ENERGY WEEK



Introduction





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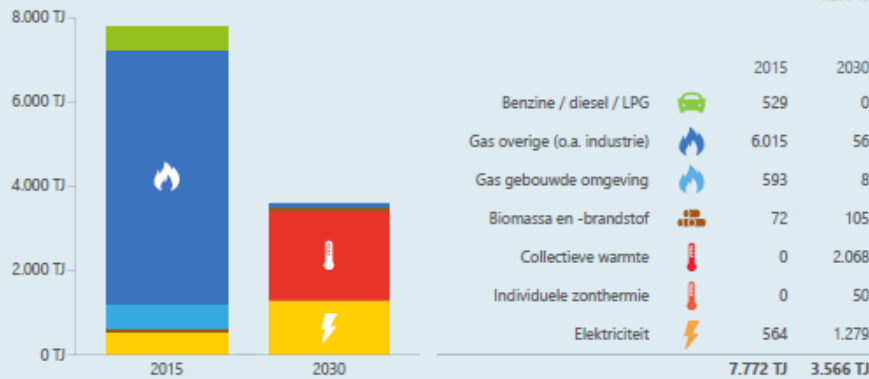
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Energjemix Brummen

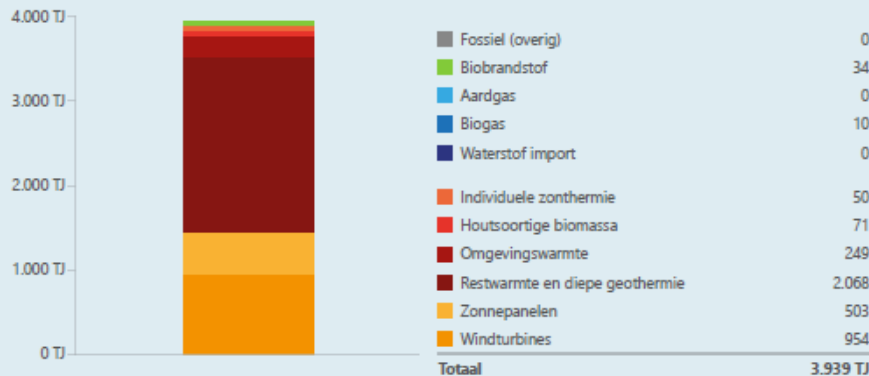
Inwoners: 20.983
Woningen: 9.250
Energiegebruik gebouwde omgeving: 11%

OVERMORGEN
13-7-2018

1. Energievraag eindgebruik



2. Energiebronnen 2030



3. Opgave per thema 2030

Wind
954 TJ



46 windturbines op land (3 MW)
0 windturbines op zee (10 MW)

Zon
553 TJ



240.000 PV-panelen op daken
263 TJ
90 ha zonnenveld
241 TJ
161 MW vermogen PV panelen
25.000 zonnecollectoren
50 TJ
18 MW

Collectieve Warmte
2.068 TJ



Vermogen bronnen: 156 MW
65.000 woningequivalenten

Geothermie (100%)
Restwarmte (0%)
Warmtepompen (0%)
Overig (0%)

Individuele Warmte
1.253 TJ



Warmtepompen 25%
Overig 67%

(Hernieuwbaar) Gas
65 TJ

Aardgas (0%)
Biogas (15%)
Waterstof (85%)

Biomassa
105 TJ

Bijstook biomassa 71 TJ
Transport 34 TJ
Overig 0 TJ



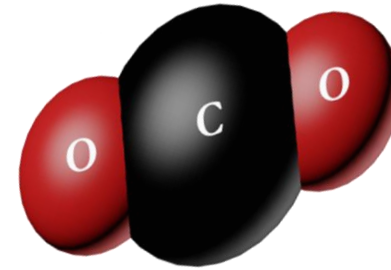
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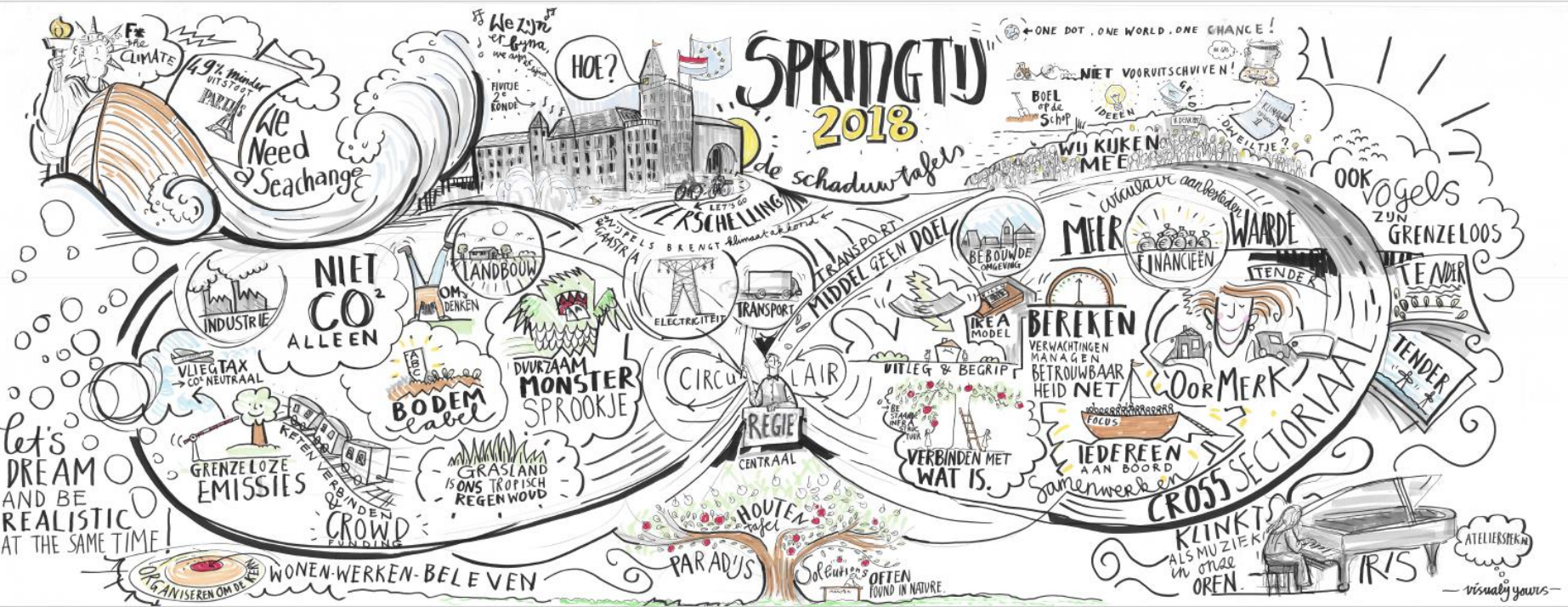
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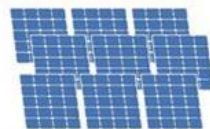
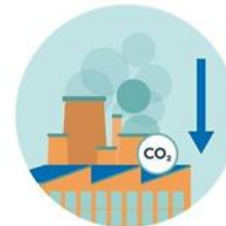
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Regionale Energie Strategie Cleantech Regio 2020-2030



Startnotitie





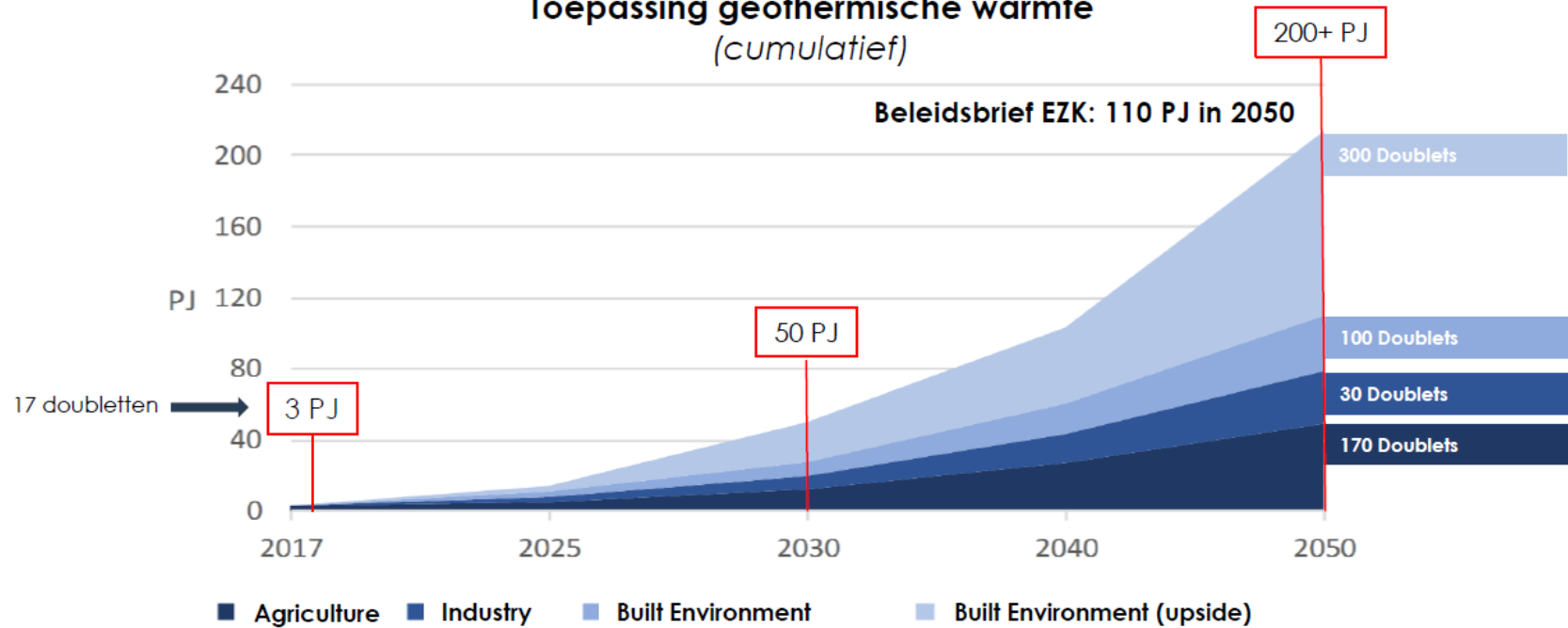
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Rol van Aardwarmte in de Transitie

Toepassing geothermische warmte (cumulatief)





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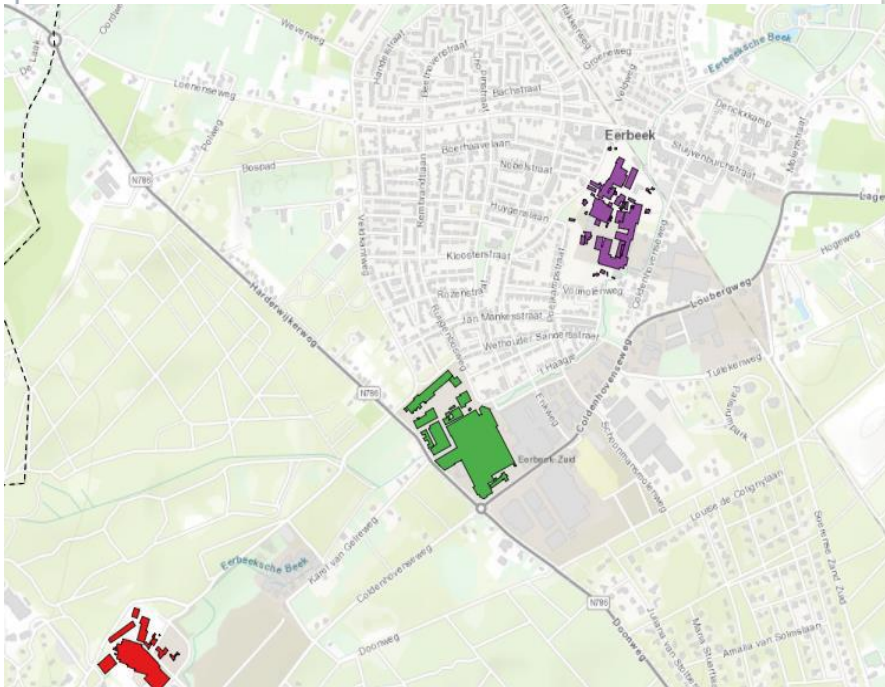


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OVER
MORGEN

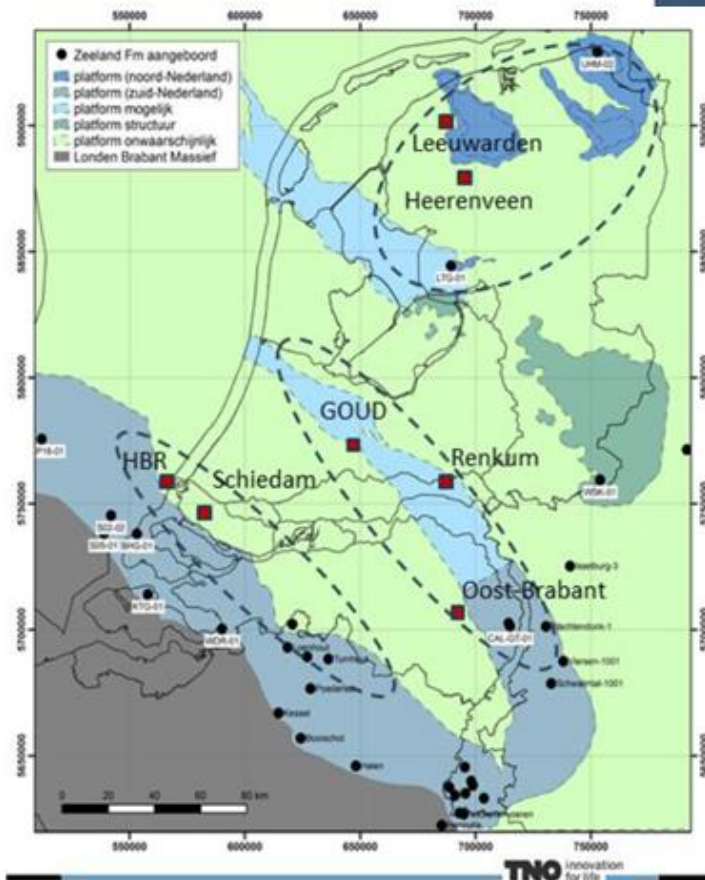
Trias Thermica

Eerbeek energie- en CO₂ neutraal in 2030

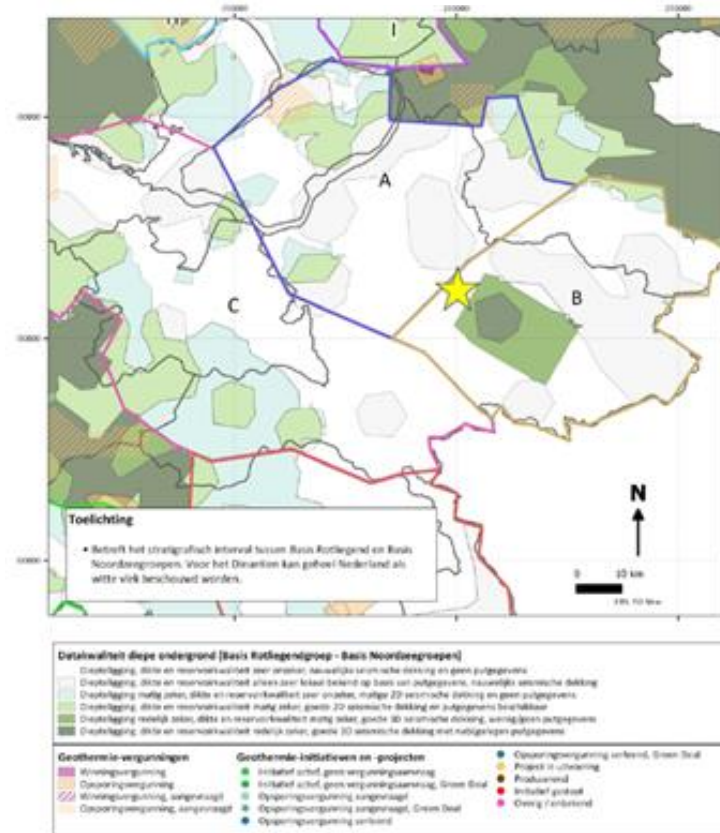




Green Deal UDG



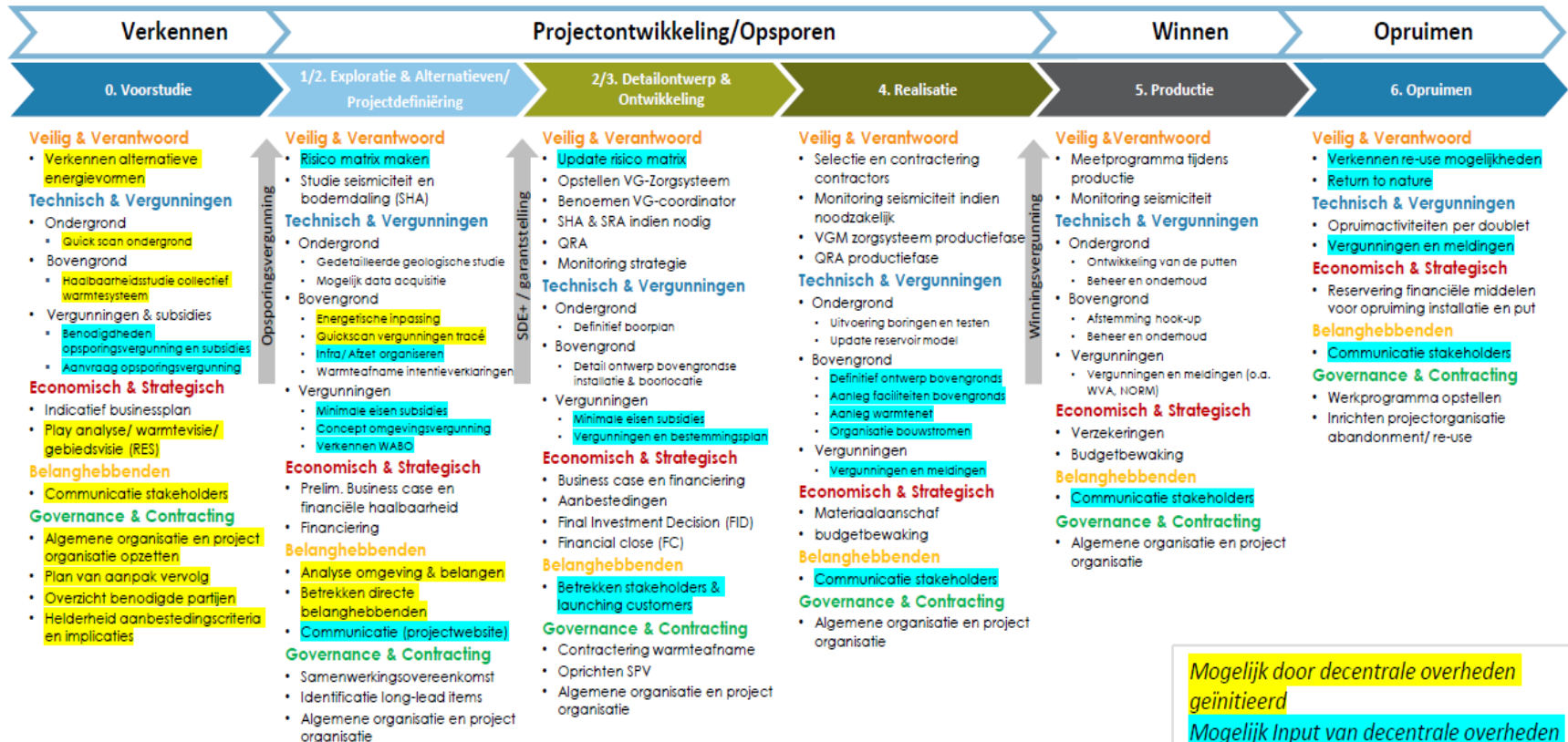
SCAN



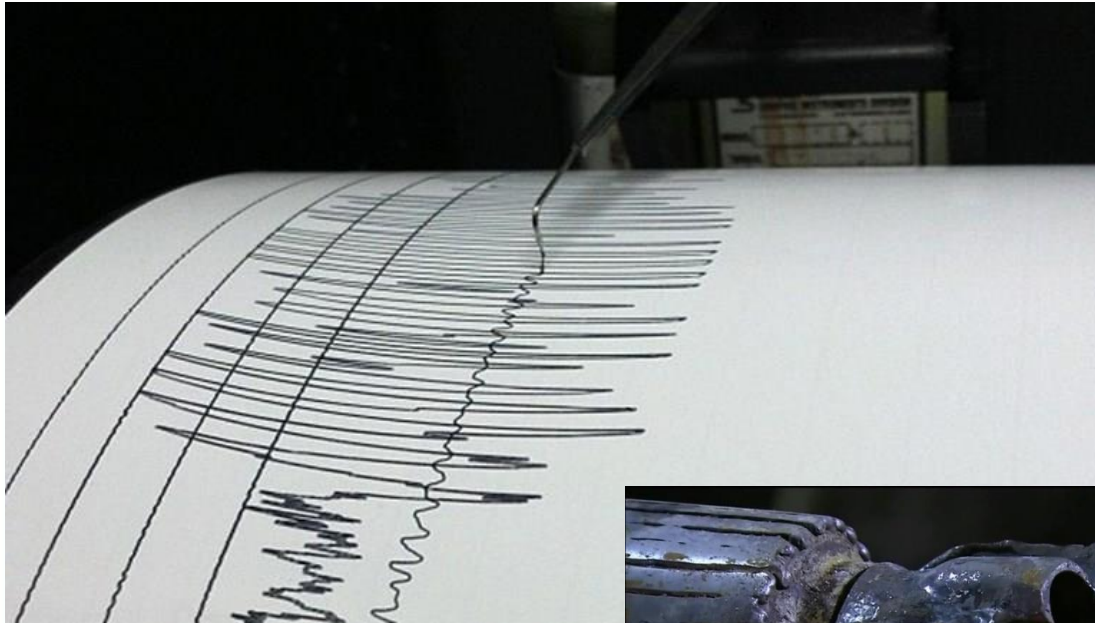


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Verschillende projectfasen van een gemiddeld aardwarmte project



Mogelijk door decentrale overheden geïnitieerd
 Mogelijk Input van decentrale overheden gewenst



#HowItsMade

