

# Factor2 Energy

Commercializing CO<sub>2</sub> based Geothermal power



We are on a mission to commercialize CO<sub>2</sub> based geothermal power , unlocking scalable, costeffective, and emission-free power while leveraging existing technology and assets



2019 Incubated within Siemens Energy Development and refinement of the concept

### Why CO2 based geothermal?



#### Accesses to a broader range of sites

Lower viscosity and strong natural thermosiphon effect allow access to moderate temperature reservoirs

#### Fewer cycle components and reduced complexity

Direct cycle design and strong thermosiphon eliminate the need for binary systems and subsurface pumps

#### Reduced environmental impact

Eliminating the need for fracking, ultra deep drilling and extensive horizontal drilling, while minimizing water consumption

#### Leveraging proven components and expertise

Accelerating time to market and reducing capital need by utilizing exisiting components and drilling technologies



2022/23 Proof of concept Validation of the technology under real operating conditions

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of the concept

### **Proof of concept**









Hungary



Technical concept approved



Worldwide unique



Calc. models validated



System regulation approved



### Proof of Concept - Impressions

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Nach dam Elű



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### 2025 Launch of Factor2 Energy Spin-off from Siemens Energy

### Developing a demonstration Power Plant

Actual system proven in operational environment (TRL9) Commercial Power Plant > 30 MW

System completed and qualified (TRL8) Demonstration Plant ~5 MW

Technology validated in relevant ✓ environment (TRL 5)

Circulation test conducted, equipped with the necessary measuring instruments

#### Basic Research (TRL 3)

Technical and economic investigations and comparisons to existing energy technologies

#### 2022/2023

2021

*Technical comparison, LCOE comparison, Market definition, Portfolio fit* 

Restricted, 2025 | Felix Boehmer, Factor2 Energy

system proven in





2022/23 Proof of concept Validation of the technology under real operating conditions Next step: Pilot plant development Deployment of our first-of-its-kind plant

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## We are looking for partner who want to contribute to the development of a first of a kind CO2 based geothermal power plant

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