ETIP Geothermal

GEOTHERMAL INNOVATION DAYS 2026

- WELCOME -

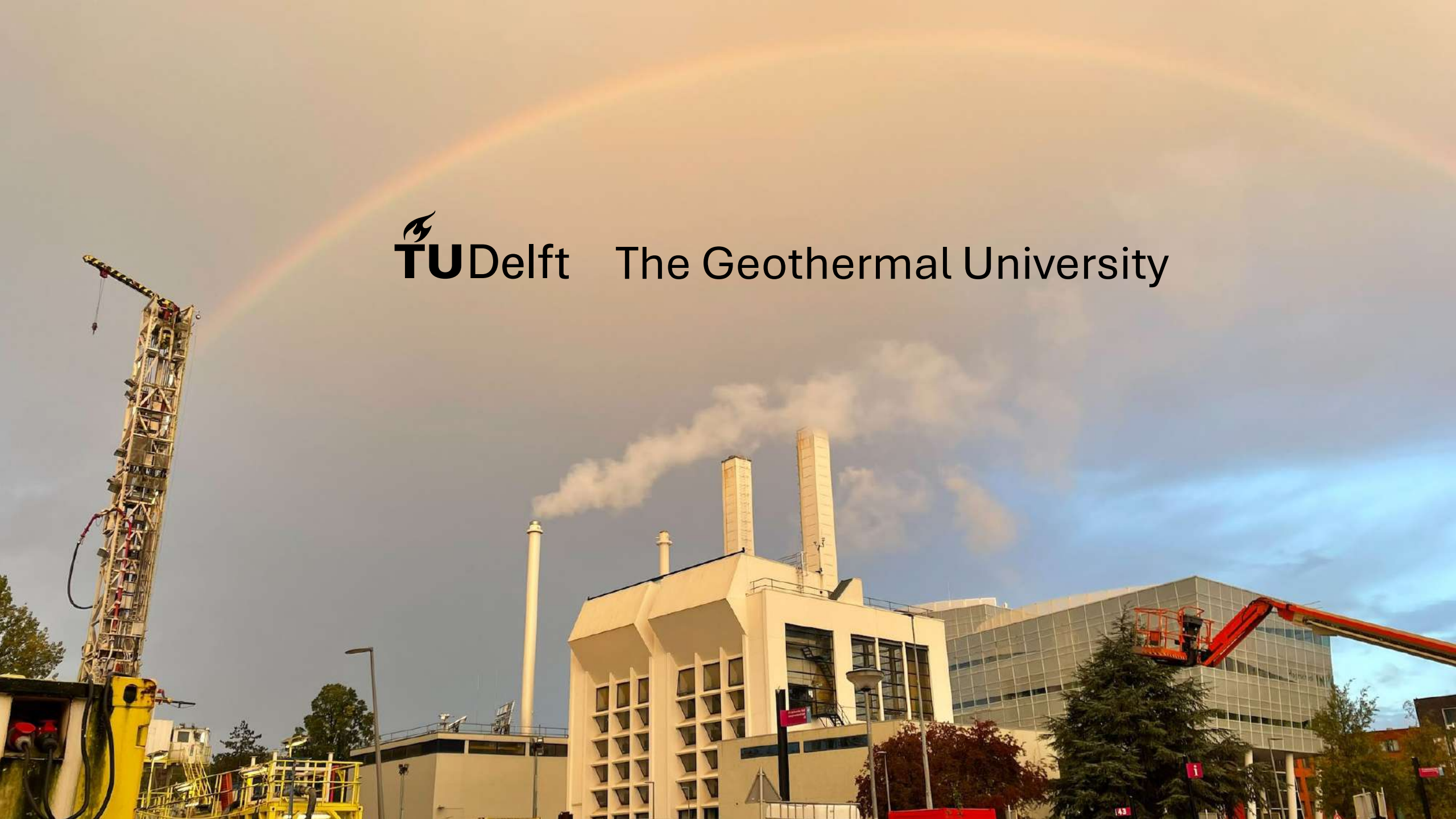
David Bruhn

TU Delft/Fraunhofer IEG

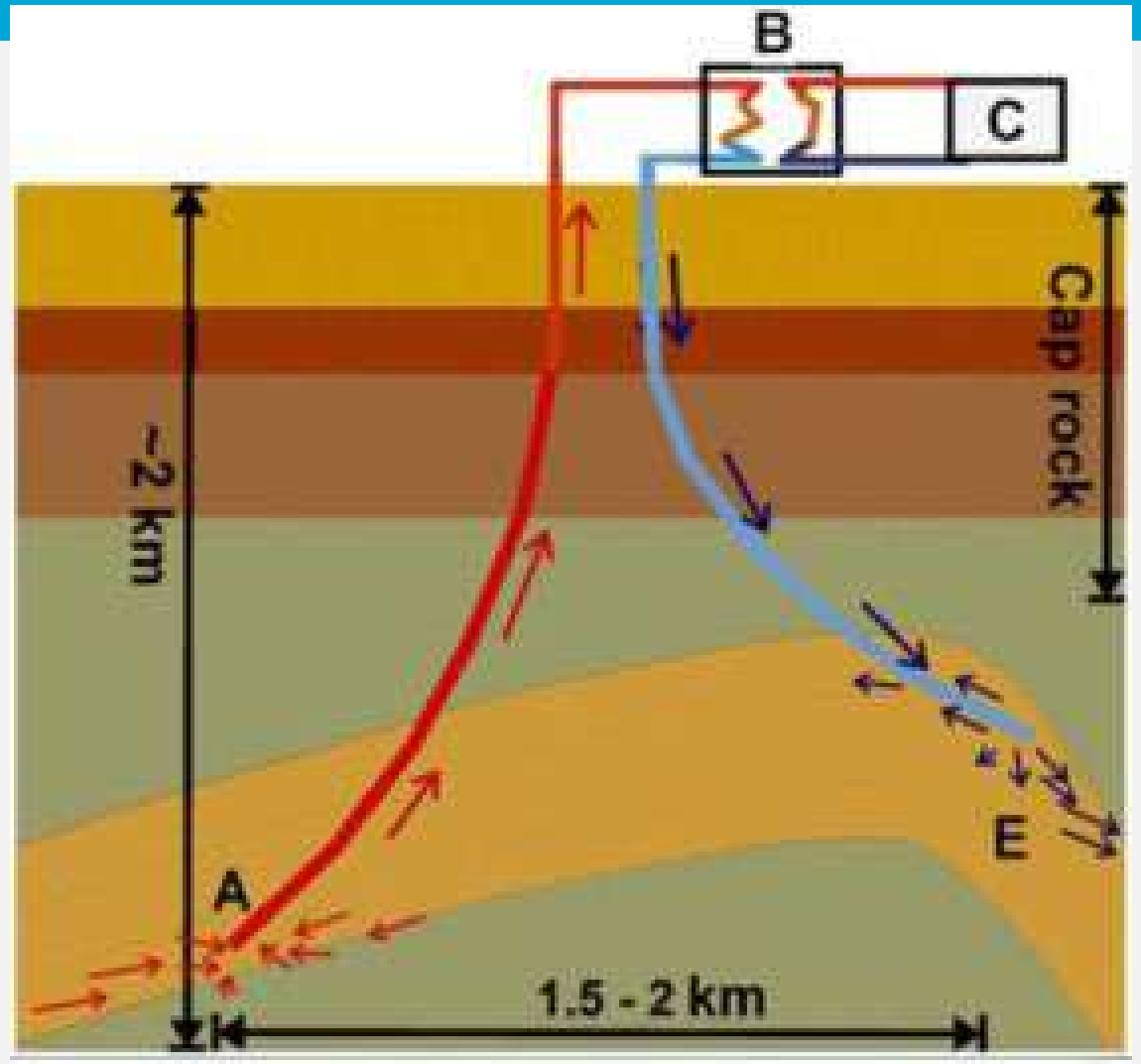
EERA Joint Programme Geothermal, chair

TU Delft

EERA European Energy Research Alliance GEOTHERMAL


TU Delft
The Geothermal University

Delft Aardwarmte Project – first proposed in 2007

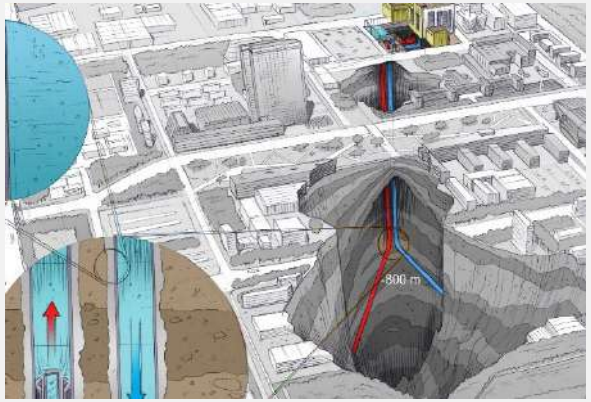


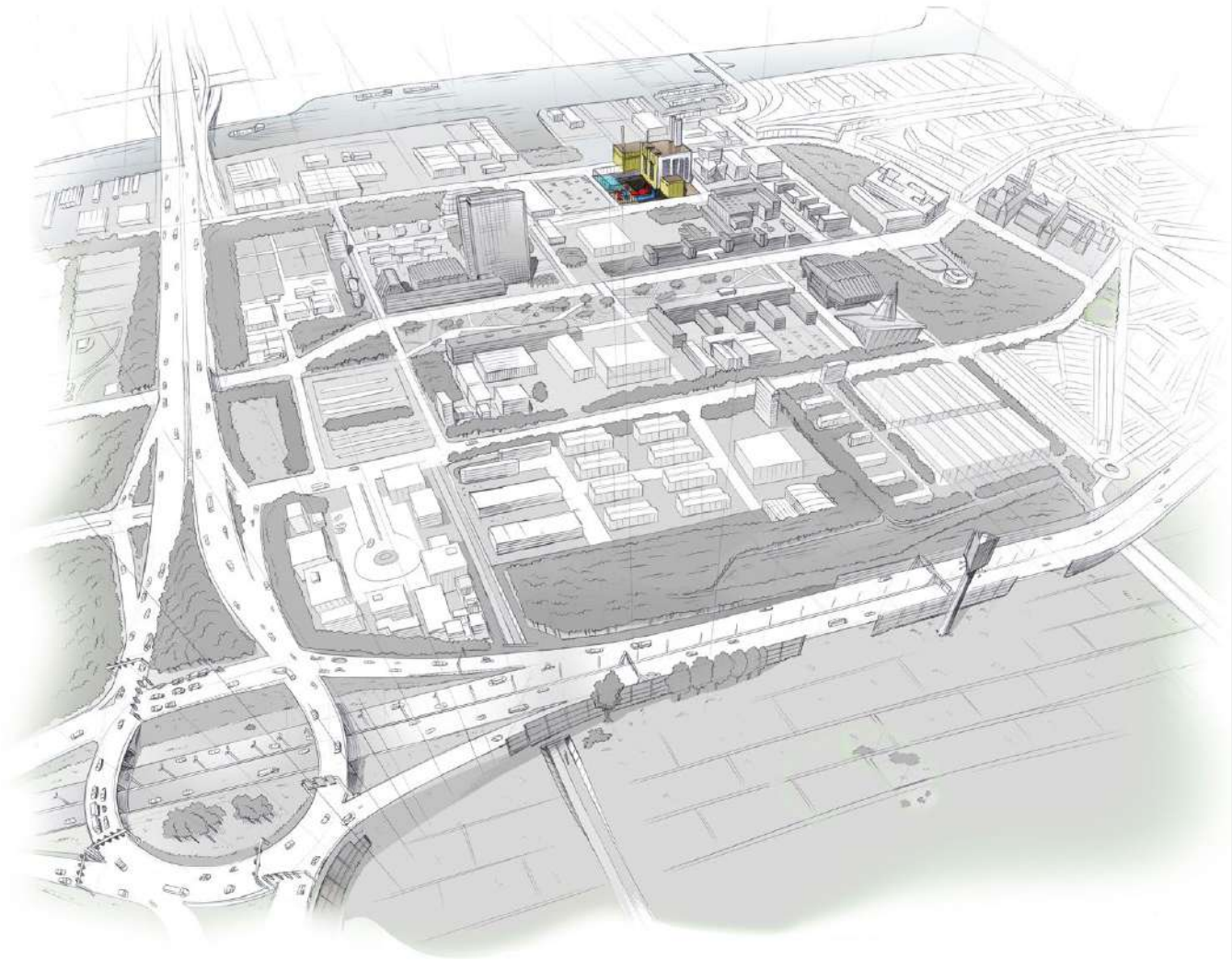
A Production well
B Heat exchanger
C Heating circuit
D Injection well

A hot topic, for deep research

Delft Geothermal Project

EPOS-NL
EUROPEAN PLATE OBSERVING SYSTEM NETHERLANDS



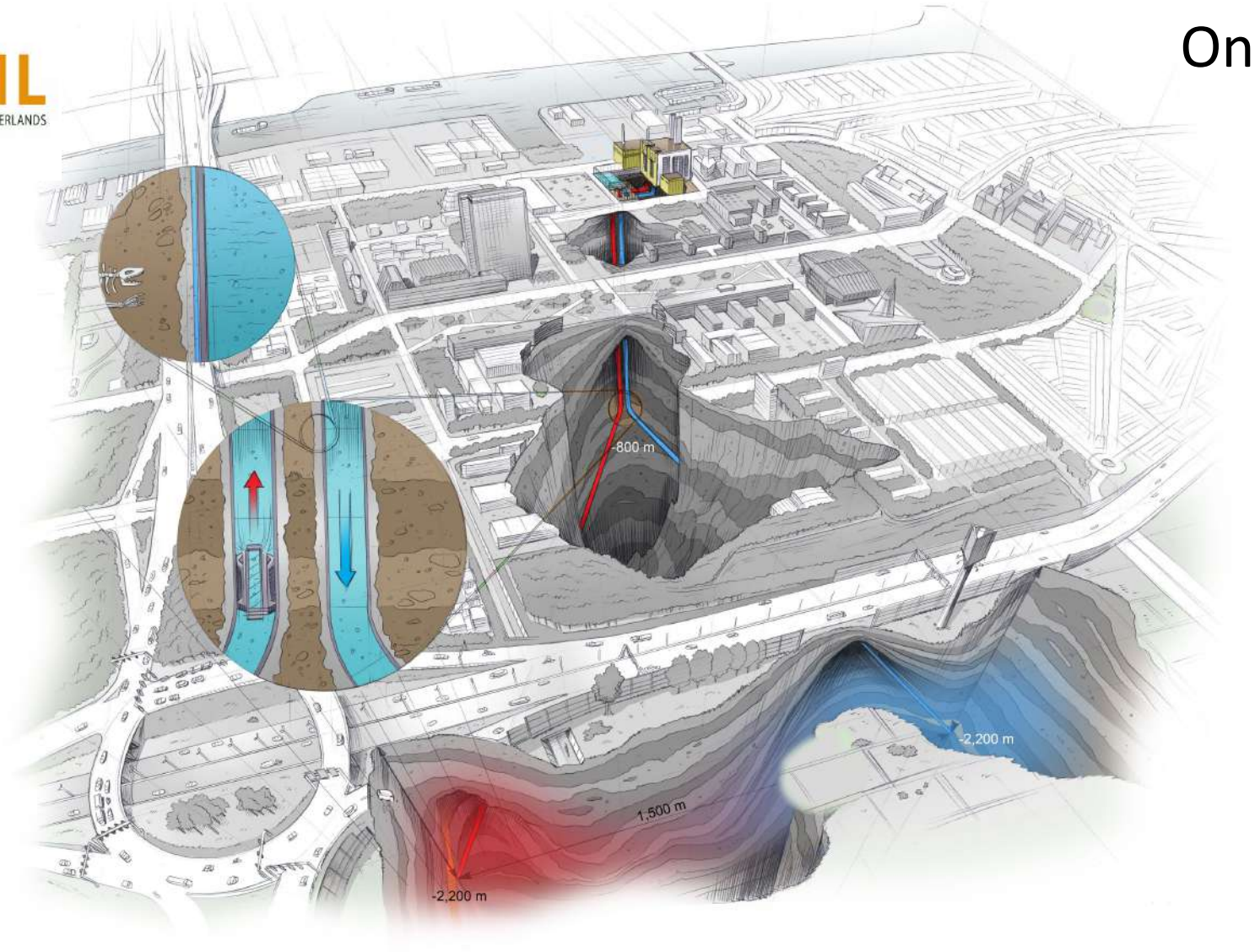


NWO large scale <u>infrastructure</u>

- Consortium: UU, TUD, KNMI
- €25m (€9 m TU Delft)*
- 2018-2028
- Private investment >€25m (GTD)
- Facilities only

TU Delft

Geothermie Delft



One project, two goals

Energy

Knowledge

GEOTHERMIE DELFT
Delftse bron van duurzame energie en kennis

GAIA ENERGY

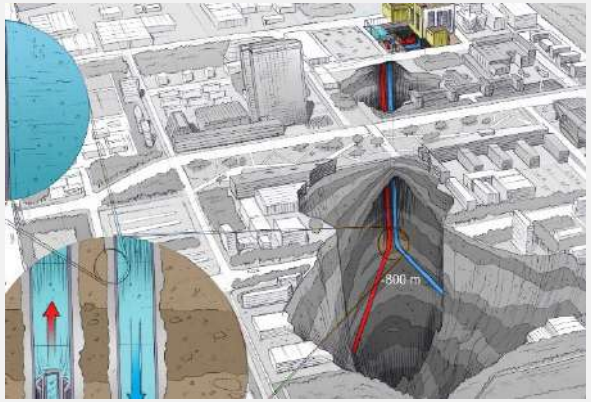
ebn

TU Delft

TU Delft

DSUEL: Delft Subsurface Urban Energy Lab

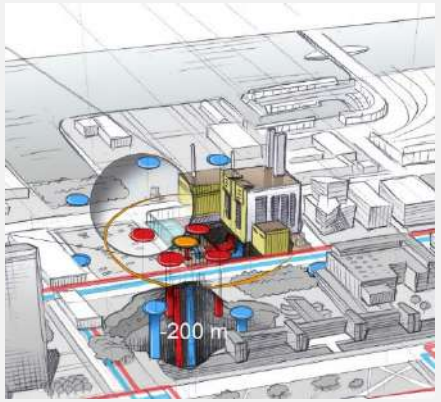
EPOS-NL
EUROPEAN PLATE OBSERVING SYSTEM NETHERLANDS



NWO large scale infrastructure

- Consortium: UU, TUD, KNMI
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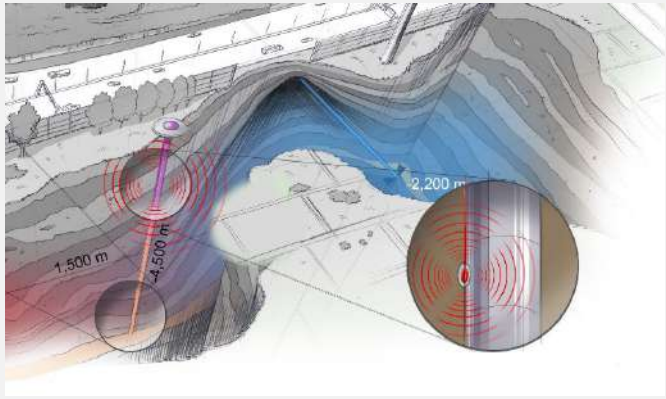
PUSH IT



EU Innovation and Demonstration

- Consortium: TUD (lead), 16 EU partners
- €20m (€4.5m TU Delft+pilot)*
- 2023-2026
- Private investment ~€5m (GTD)
- Facilities and research

EPOS-eNLarge
EUROPEAN PLATE OBSERVING SYSTEM EPOS-Netherlands



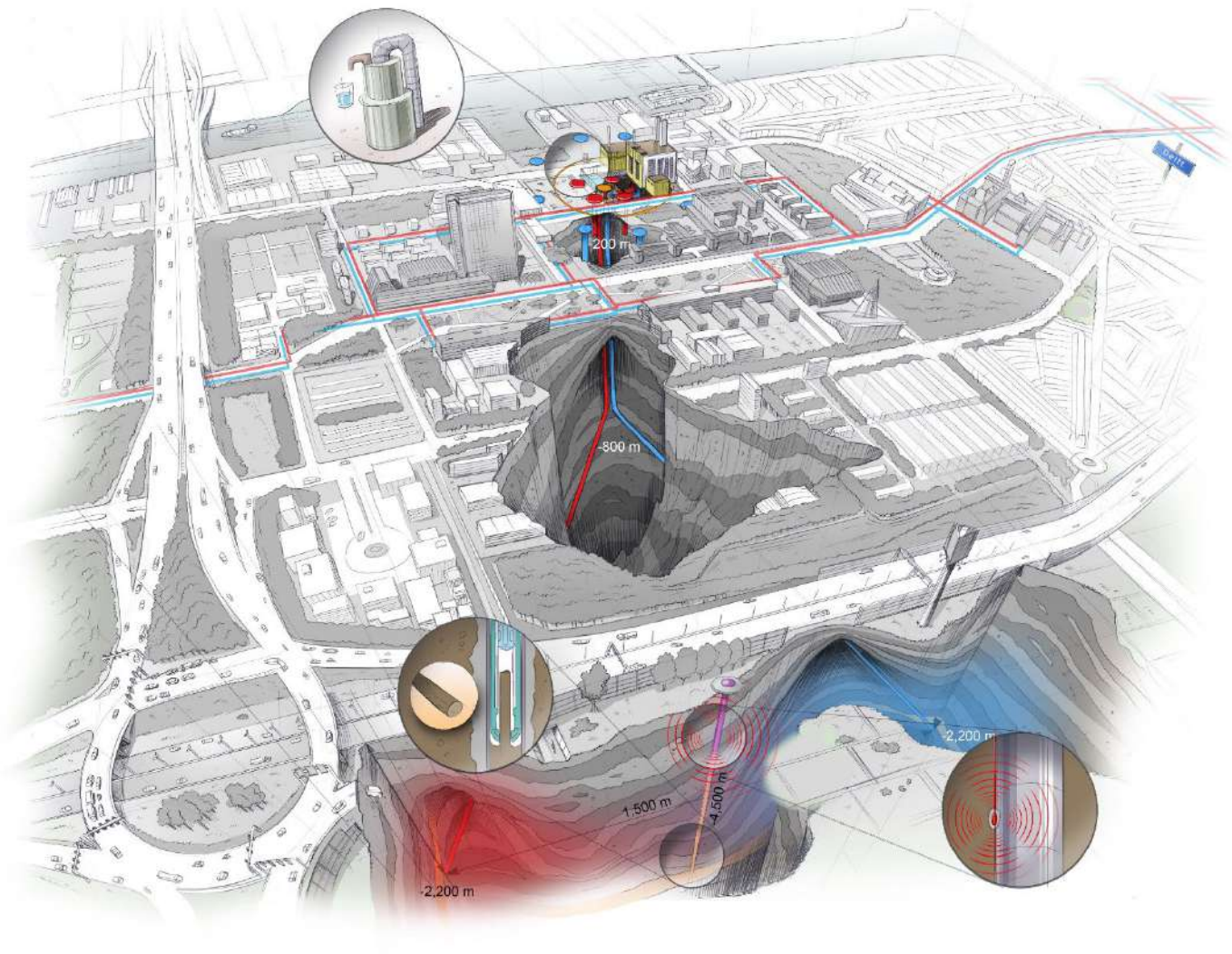
NWO large scale infrastructure

- Consortium: UU, TUD, KNMI, TNO
- €25m (€ 11.7m TU Delft)*
- 2023-2033
- Facilities only

TU Delft

*funding includes match-funding

DSUEL: Delft Subsurface Urban Energy Lab



Combined set of major subsurface facilities for research and demonstration:

- Geothermal well: GTD
- High Temperature – Aquifer Thermal Energy Storage (HT-ATES) system: (GTD)
- Deep exploration and monitoring borehole: TU Delft - CEG

Connections with major operational infrastructure

- Campus heating grid
- Open Warmtenet Delft
- P2H via heat pump centre

The European Energy Research Alliance - EERA

EERA
The most influential energy research community in the EU & globally



50,000+ experts

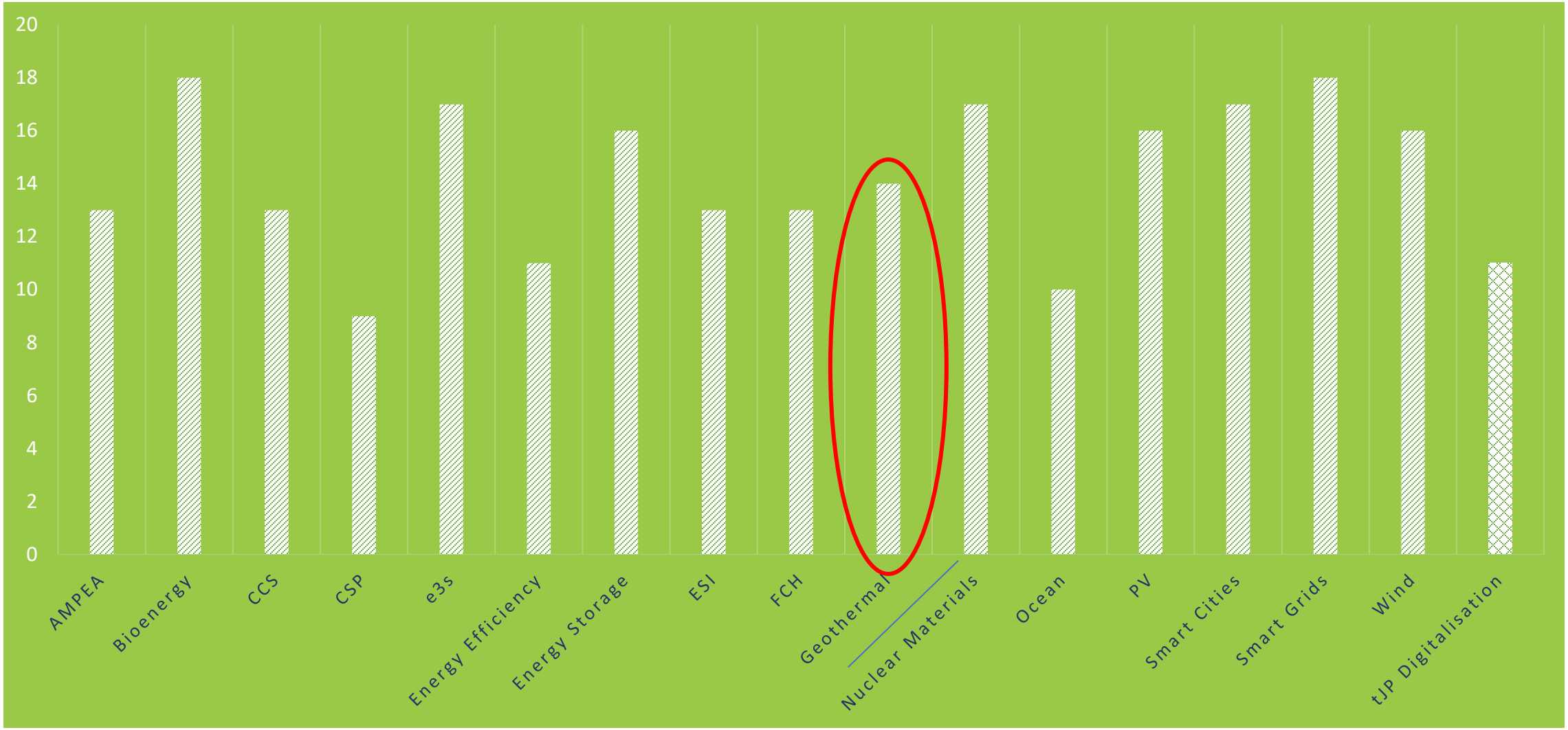
250+ organisations

30 countries

Joint Research Programmes	17+1
SET-Plan key actions	all 10
ETIPs and other platforms	all 10
cross-cutting & societal challenges	35%
Mission Innovation challenges	6/8

19 EERA Joint Programmes

EERA European Energy Research Alliance
GEOTHERMAL





European Energy Research Alliance
Joint Programme Geothermal

- established in 2010
- 30 Participants, 9 Associate Participants from 15 countries
- common endavour to coordinate geothermal energy research across Europe
- approximately 40% of European research capacity

	Name	Type of organisation	Country
1	Austrian Institute of Technology GmbH - AiT	Research organisation	Austria
2	British Geological Survey - UKRI/BGS	Research organisation	UK
3	Bureau de Recherches Géologiques et Minières - BRGM	Research organisation	France
4	Ecole Polytechnique Fédérale de Lausanne - EPFL	University	Switzerland
5	Danmarks Tekniske Universitet - DTU	University	Denmark
6	Delft University of Technology – TU Delft	University	Netherlands
7	Fraunhofer IEG	Research organisation	Germany
8	Helmholtz Centre Potsdam - GFZ	Research organisation	Germany
9	Icelandic Geosurvey – ISOR	Research organisation	Iceland
10	IFPEN	Research organisation	France
11	Institute for Energy Technology – IFE	Research organisation	Norway
12	Istituto Nazionale di Oceanografia e di Geofisica Sperimentale – OGS	Research organisation	Italy
13	ENEA	Research organisation	Italy
14	HUN-REN EPSS	Reserach organisation	Hungary
15	Institut Cartogràfic i Geològic de Catalunya - ICGC	Research organisation	Spain
16	Italian National Research Council – CNR-IGG	Research organisation	Italy
17	Izmir Institute of Technology - IZTECH	University	Turkey
18	Karlsruher Institut für Technologie – KIT	University	Germany
19	National Laboratory for Energy and Geology – LNEG	Research organisation	Portugal
20	Netherlands Organisation for Applied Scientific Research – TNO	Research organisation	Netherlands
22	Norwegian Research Centre - NORCE	Research organisation	Norway
23	Politecnico di Milano - POLIMI	University	Italy
24	RWTH Aachen University - RWTH-ISEA	University	Germany
25	Scuola Superiore Sant'Anna - SSSUP/SSSA	University	Italy
26	SINTEF	Research organisation	Norway
27	Swiss Federal Institute of Technology in Zurich - ETH Zürich	University	Switzerland
28	Technische Universität Darmstadt - TUDA	University	Germany

Shaping Research Ideas for Innovation

The Geothermal Implementation Working Group IWG – for the Strategic Energy Technology (SET) Plan

The IWG brings together **SET Plan countries** to **coordinate research and innovation efforts and jointly support** the transition to a resilient and climate-neutral Europe, which utilises geothermal energy to its full potential

EERA Joint Programme Geothermal

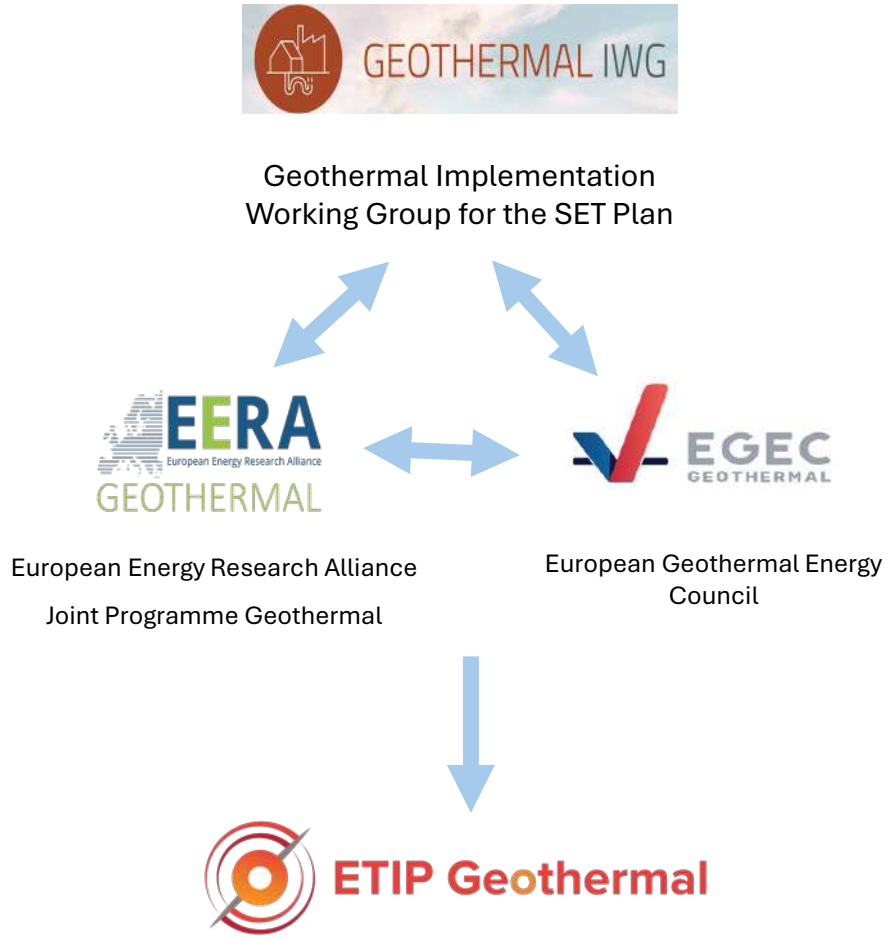
The European Energy Research Alliance **EERA is the largest energy research network in Europe**. The EERA J**oint Programme Geothermal unites 35+ research institutions** to jointly develop research programmes and projects and inform the wider (geothermal) research community about progress and development in the field

EGEC – European Geothermal Energy Council

EGEC is a not-for-profit organisation promoting all aspects of the geothermal industry. Its objective is to facilitate awareness and expansion of geothermal applications across Europe by shaping policy, improving investment conditions and steering research.

ETIP – DG: European Technology & Innovation Platform on Geothermal

The ETIP-DG is an open stakeholder group, endorsed by the European Commission under the SET-Plan. The **ETIP-Geothermal brings together representatives from industry, academia, research centres, and sectoral associations**, covering the entire geothermal energy exploration, production, and utilization value chain



Shaping Research Ideas for Innovation

ETIP Geothermal

STRATEGIC RESEARCH AND INNOVATION AGENDA



Recommendations for Research Priorities

Detailed suggestions on

- Resource Assessment
- Resource development: Drilling and Subsurface Engineering
- Resource Utilization and Management
- Resource Sustainable Management
- Knowledge Sharing

Nov. 2023, update in Nov. 2026

EERA JP Geothermal sponsored events

European Geothermal PhD Days 2026 – EGPD

- Invited/Keynote Speaker on

"The European Dimension of Geothermal Research"

- The EGPD is a JP Geothermal initiative started in 2010 and has been held annually ever since, organized by PhD students for PhD students at a different university every year. 7/8 April 2026 at MontanUniversität Leoben



21-24 May 2027

European Geothermal Workshop – EGW

- Held annually (except when European Geothermal Congress is organised)
- The EGW is a scientific conference organised by JP Geothermal, hosted by a different member every year
- 2024: Uni Stavanger, Norway
- 2026: TU Darmstadt, Germany
- 2027: University of Florence, Italy

Join Forces with the Geothermal Innovation Days?

