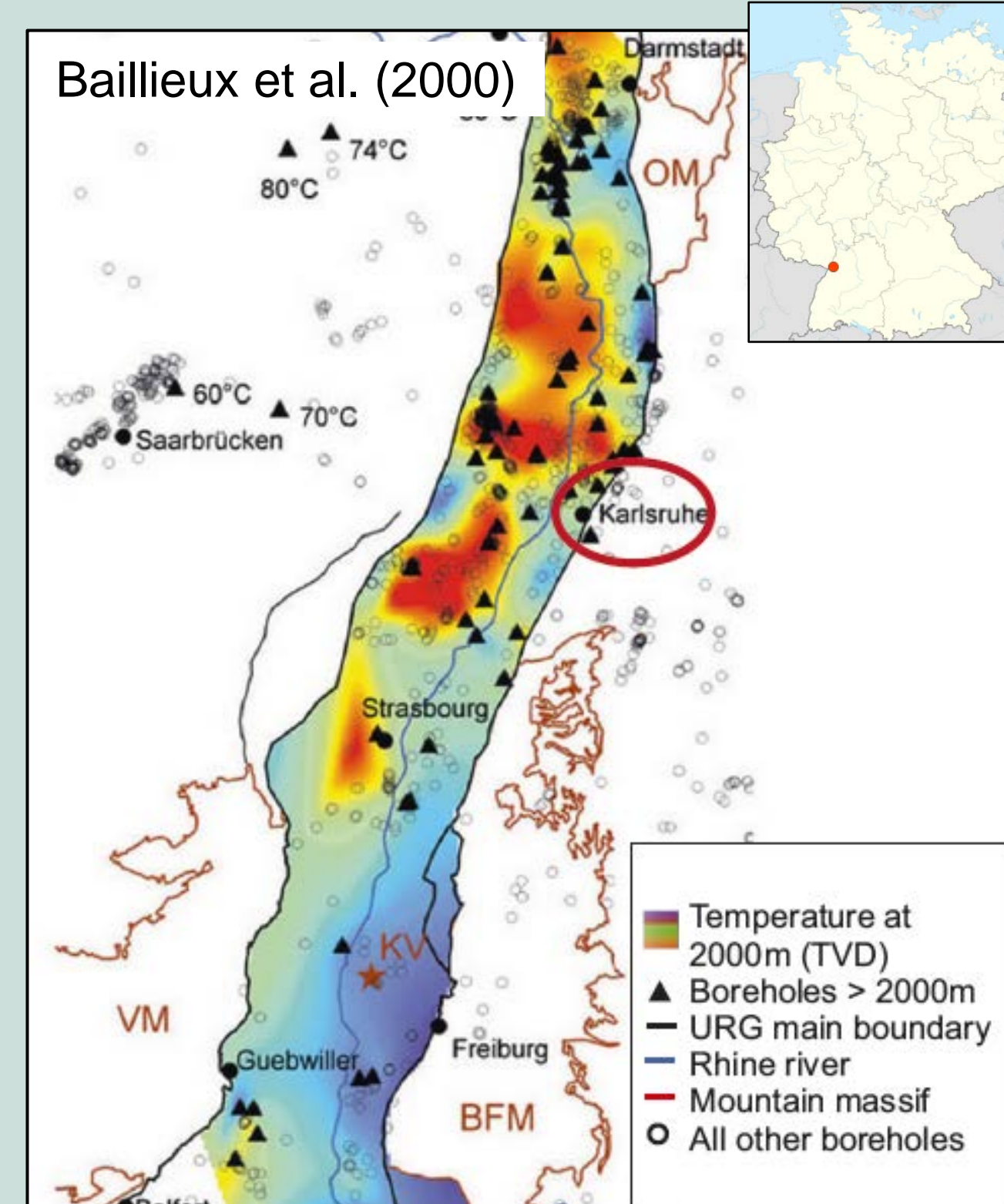
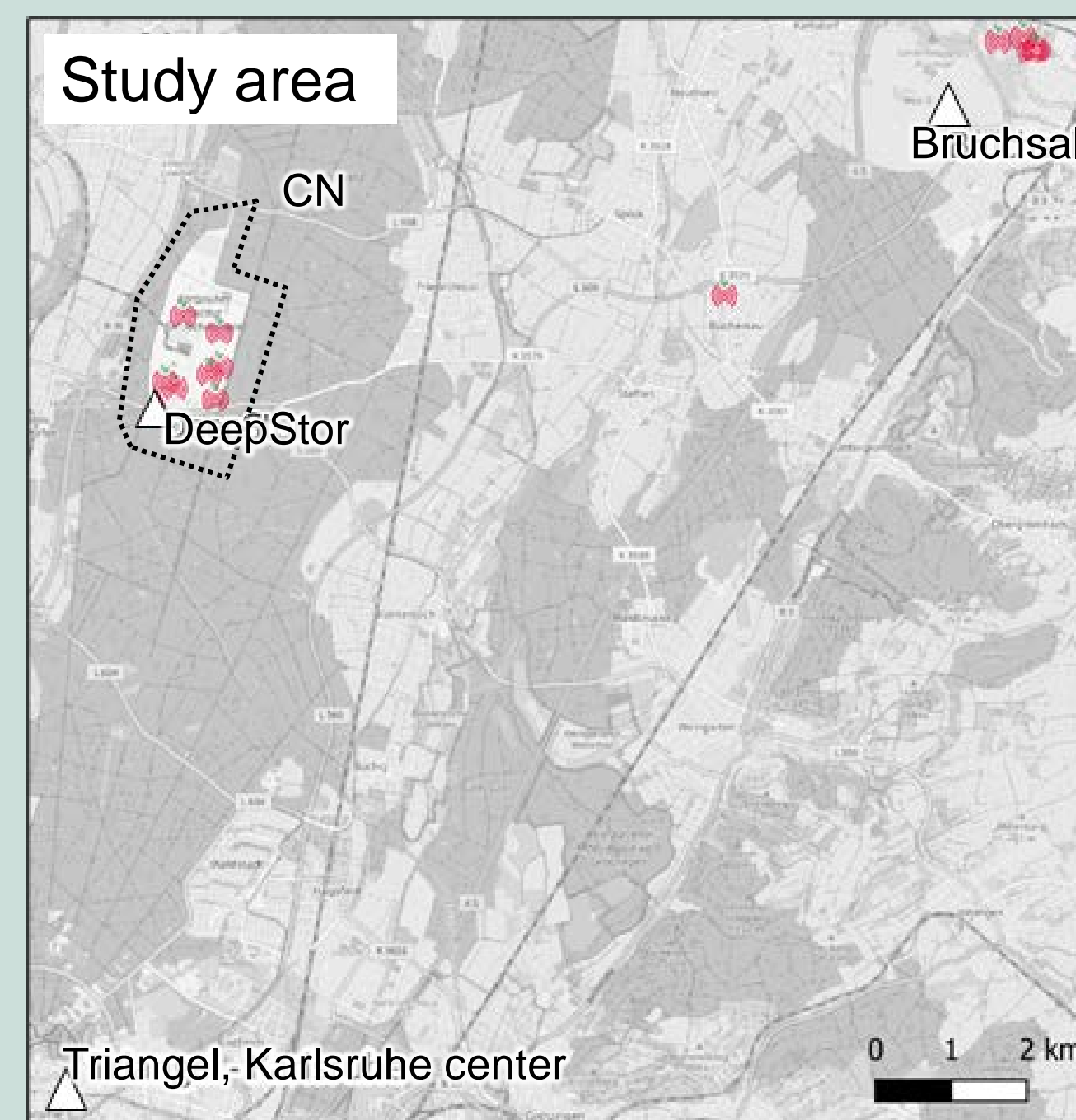


BACKGROUND: Geothermal projects can face negative public perception. **Induced seismicity** raises concerns and plays a crucial role in shaping social acceptance of geothermal projects.

POSSIBLE EXPLANATIONS: Insufficiently communicated scientific complexities, mistrust, ineffective dialogue, limited opportunities for public engagement...

POSSIBLE SOLUTIONS: Transparent exchange with citizens ; engage citizens in geothermal research and in the development of projects.

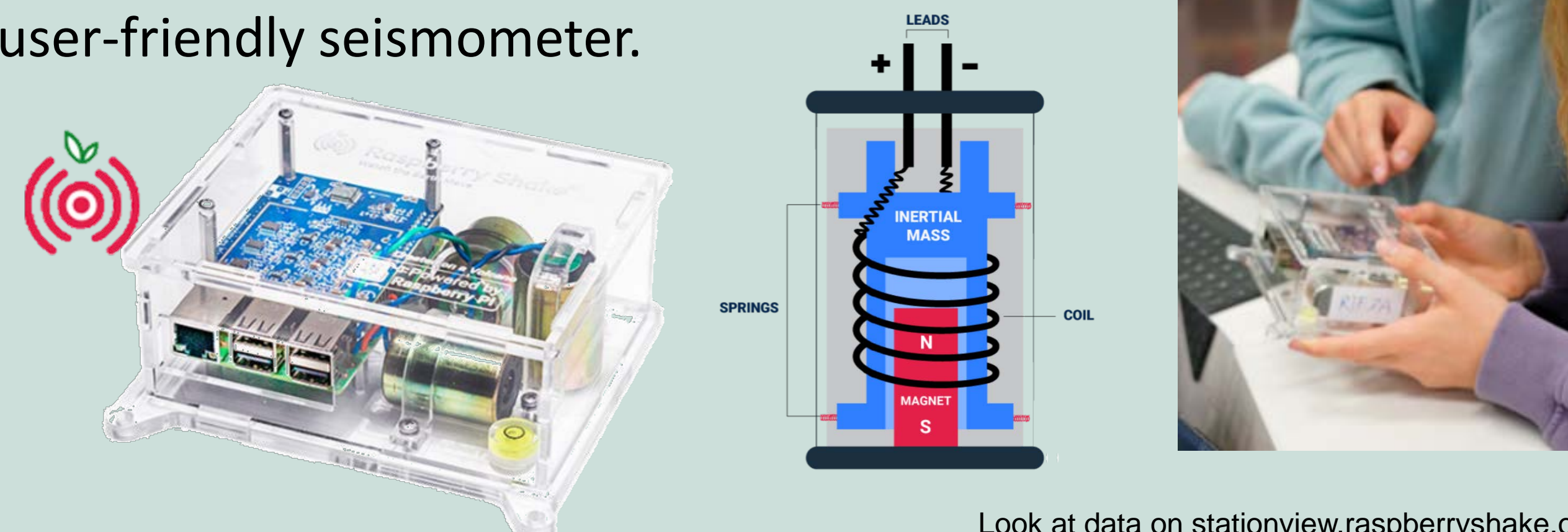
CONTEXT



WHERE: Upper Rhine Graben, around the research infrastructure DeepStor, on the KIT Campus North (CN).

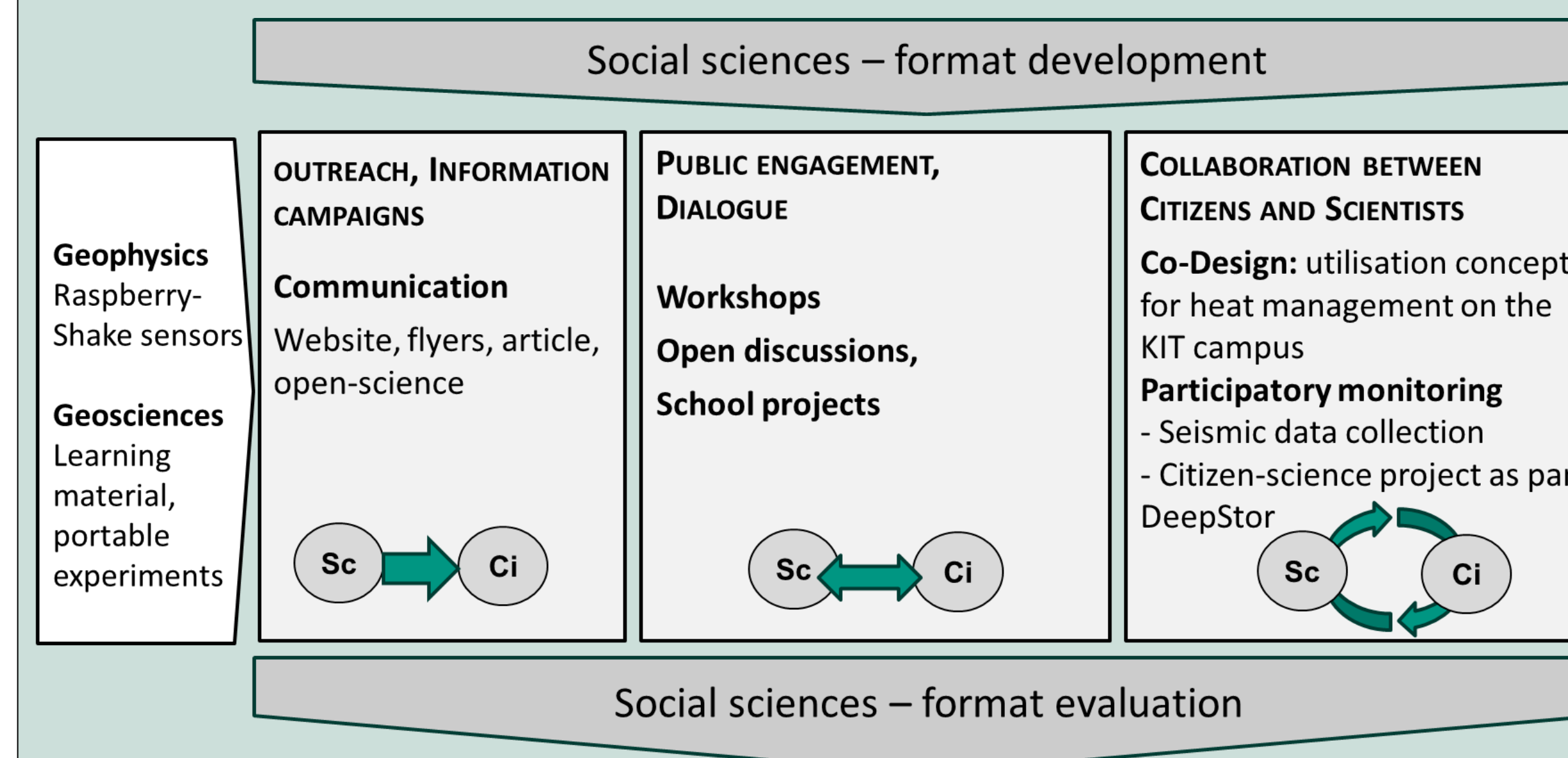
DEEPSTOR investigates the concept of aquifer thermal energy storage to address seasonal fluctuations in heat demand → Public perception and acceptability is a key aspect, with CN being an analogue of an urban environment with highly sensitive facilities.

INSTRUMENT: RS3D, 3-Component compact, user-friendly seismometer.



Look at data on stationview.raspberryshake.org

CONCEPT



WHAT: Multi-level and multi-disciplinary approach, combining geophysics (Raspberry Shake® RS3D sensors), social sciences, public relations.

OBJECTIVE: Foster transparent and participatory interactions between researchers and society through different formats.

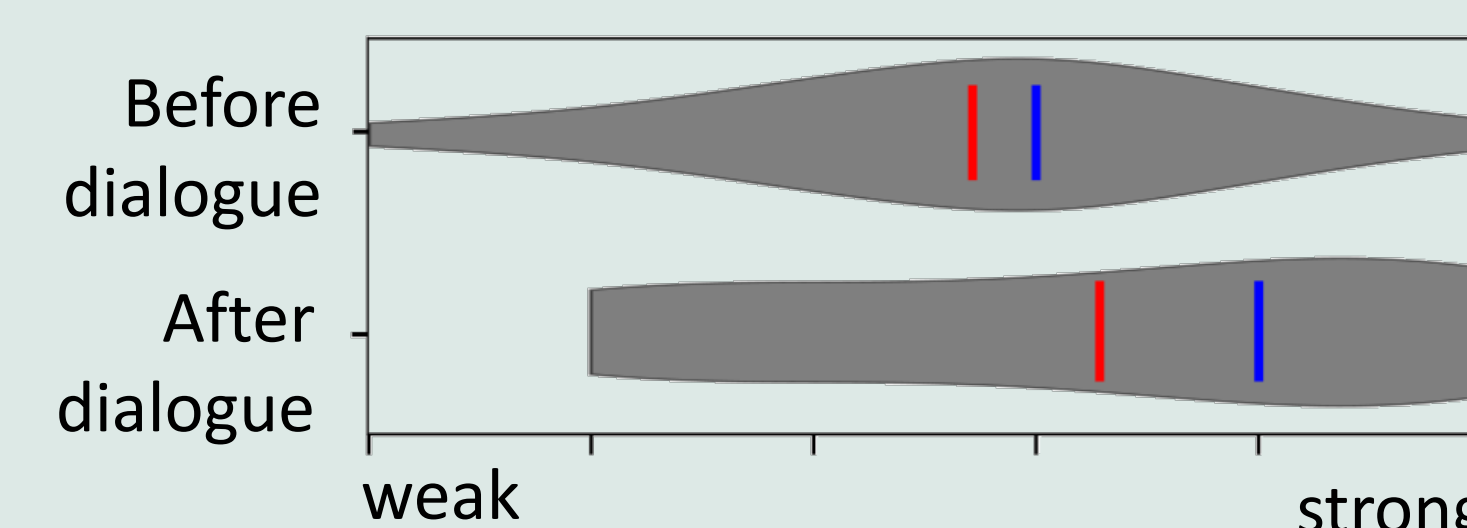
PUBLIC ENGAGEMENT, DIALOGUE

Example: Public exposition at Triangel (KA center)

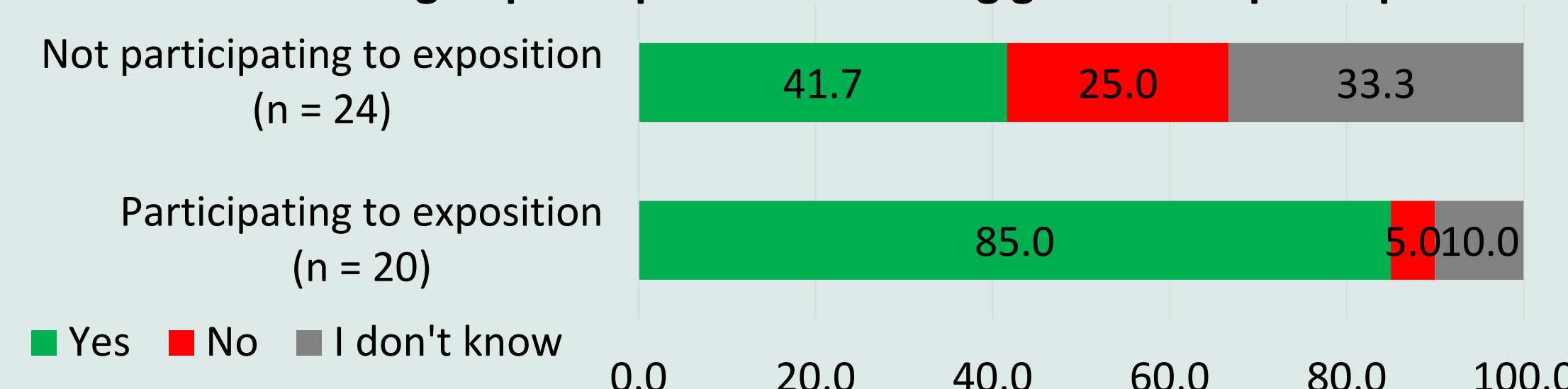
- Focus on DeepStor research infrastructure
- Five booths present scientific topics in DeepStor
- Popularizing science: bringing science closer to the public
- Citizen involved in development + evaluation



Participants asked about their knowledge of deep geothermal energy

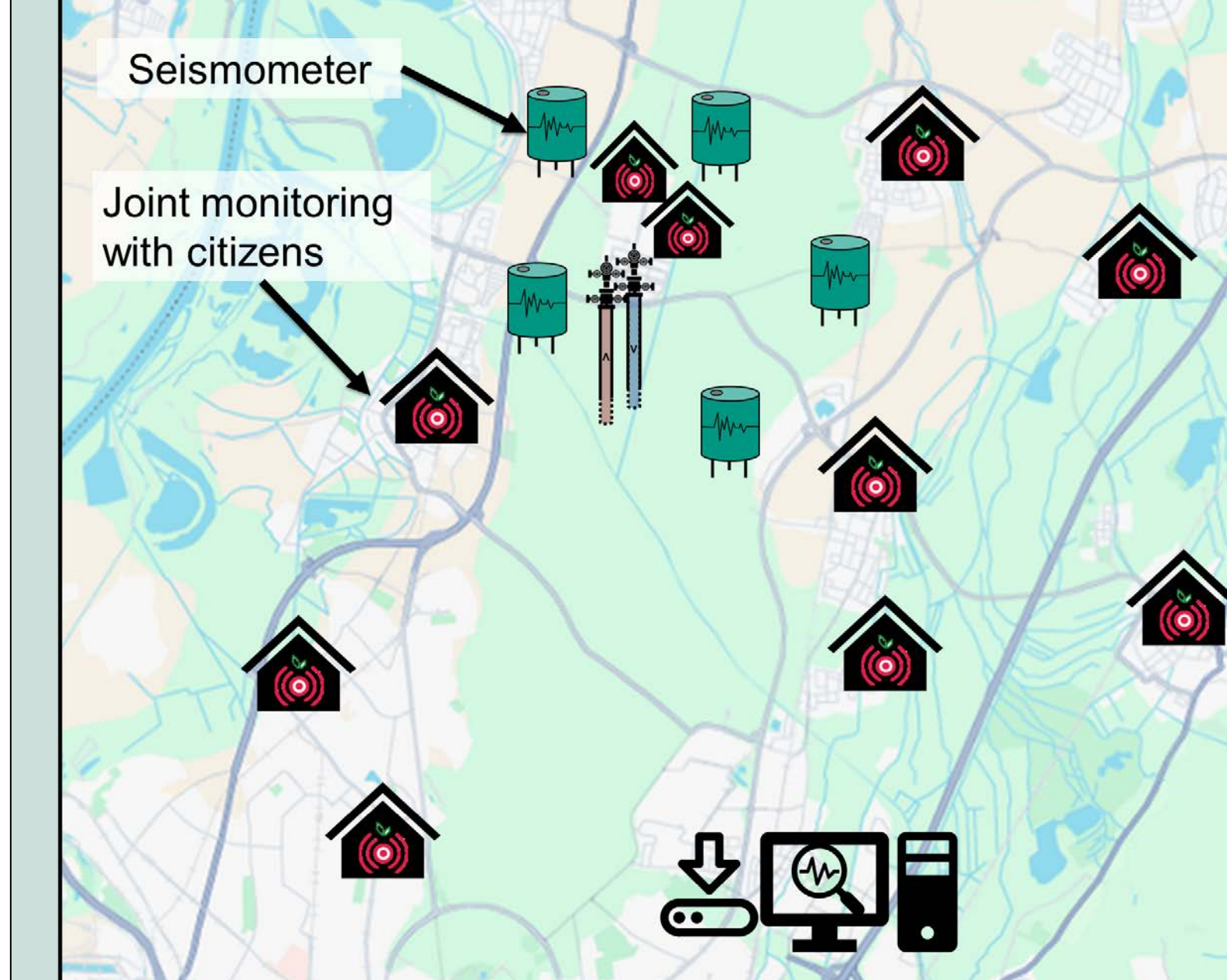


Interest in contributing to participative monitoring grows with participation in exposition [%]

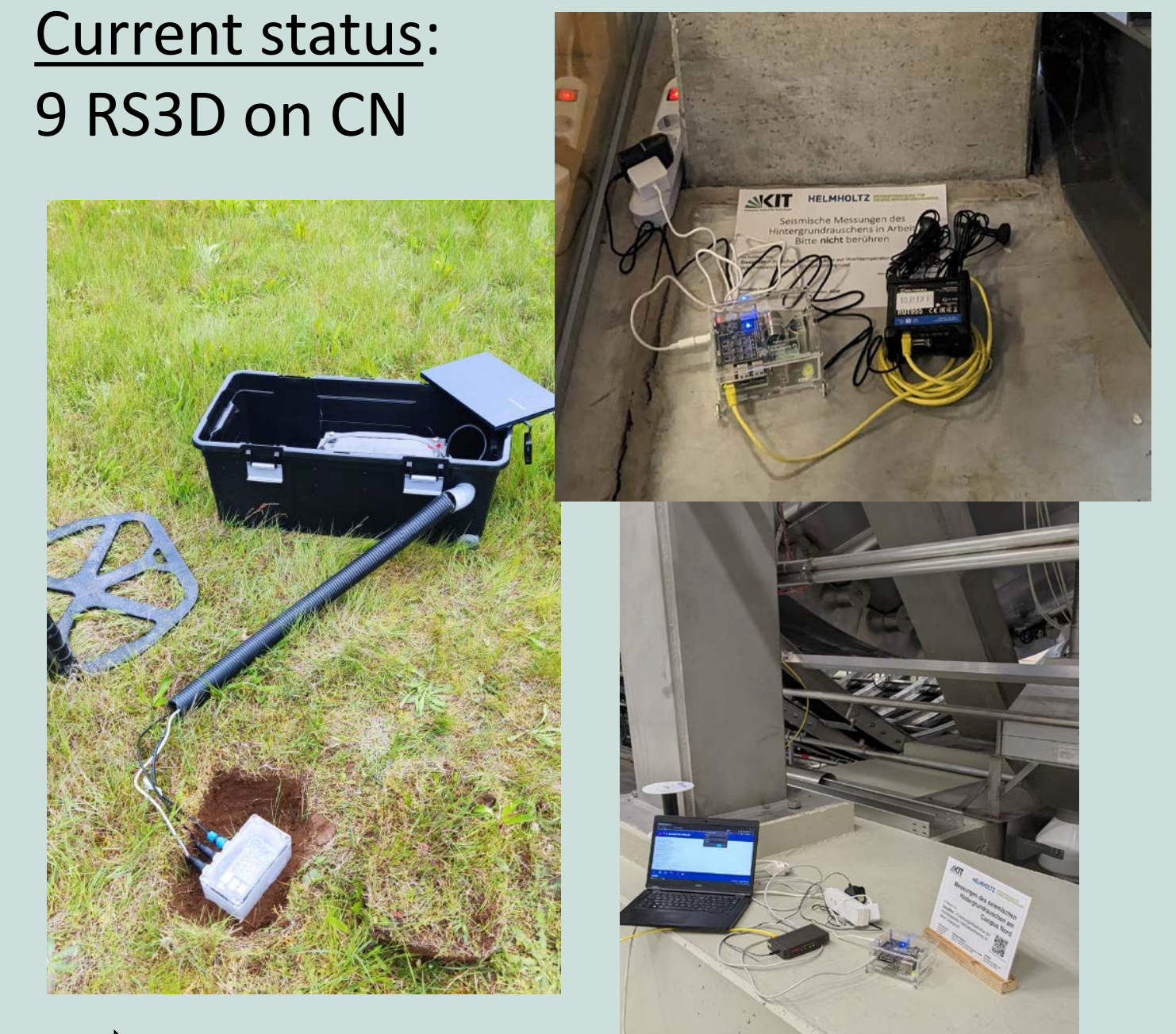


COLLABORATION CITIZEN - SCIENCE

Concept for participative monitoring



Current status:
9 RS3D on CN



Different formats: Data collection, information

Participation level

Development of digital tools, data interpretation, evaluation of participation formats

Possible benefits:

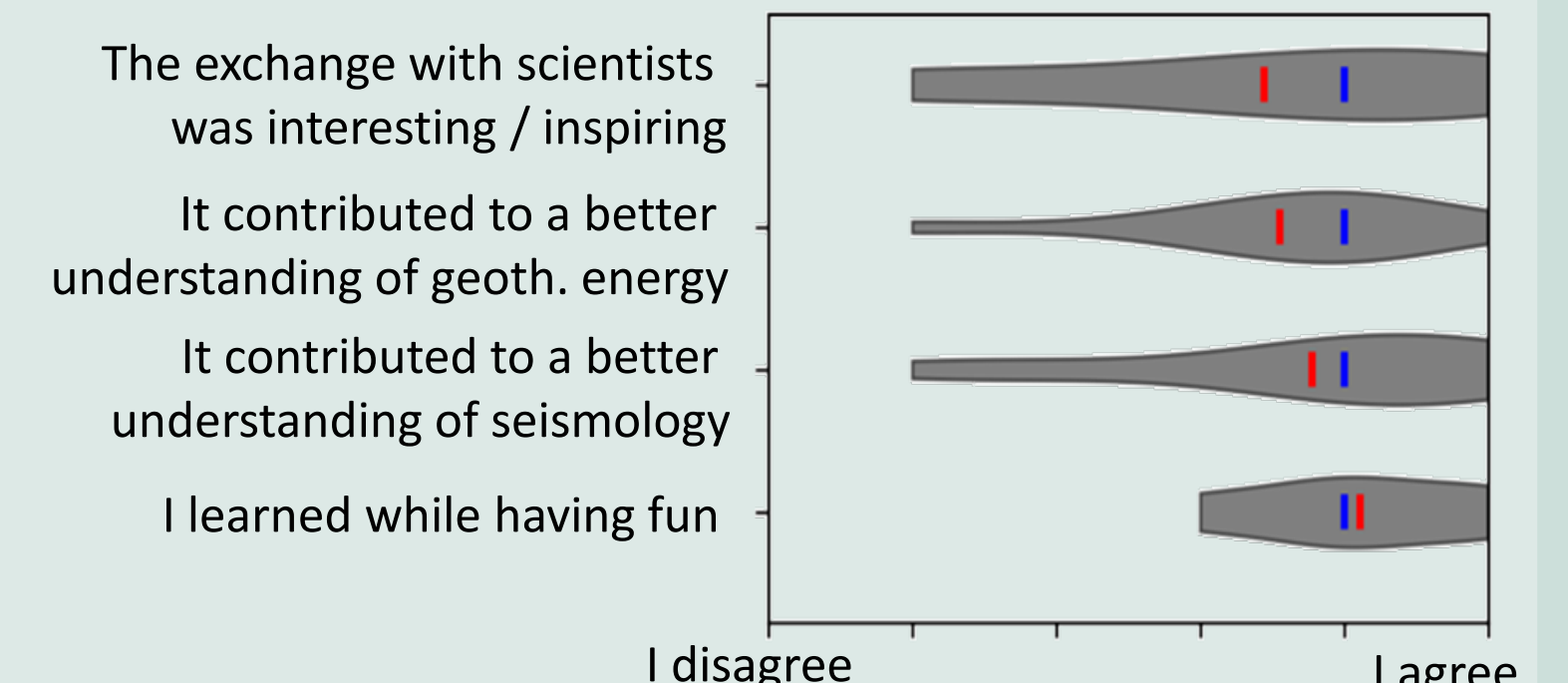
- DRIVING SCIENCE:** more robust scientific evidence, impact perception of research
- SOCIETAL ENGAGEMENT:** promote dialogue and participation, increase transparency
- PERSONAL KNOWLEDGE:** fosters informed opinion making

Example: School project in Bruchsal

- 14 pupils, aged 13 – 14
- A role play game: students take on the role of seismologists working for the Bruchsal geothermal plant
- 5 modules: introduction/training, fieldwork, data collection and analysis, and final workshop
- Allows for deeper engagement with participants, fosters hands-on learning experiences



Project evaluation with questionnaire



Geophysical observations – assessment of background seismic noise levels

