

VERA

LA GEMELLA DIGITALE
DELL'EMILIA ROMAGNA

Public Event

Esperienze internazionali a confronto



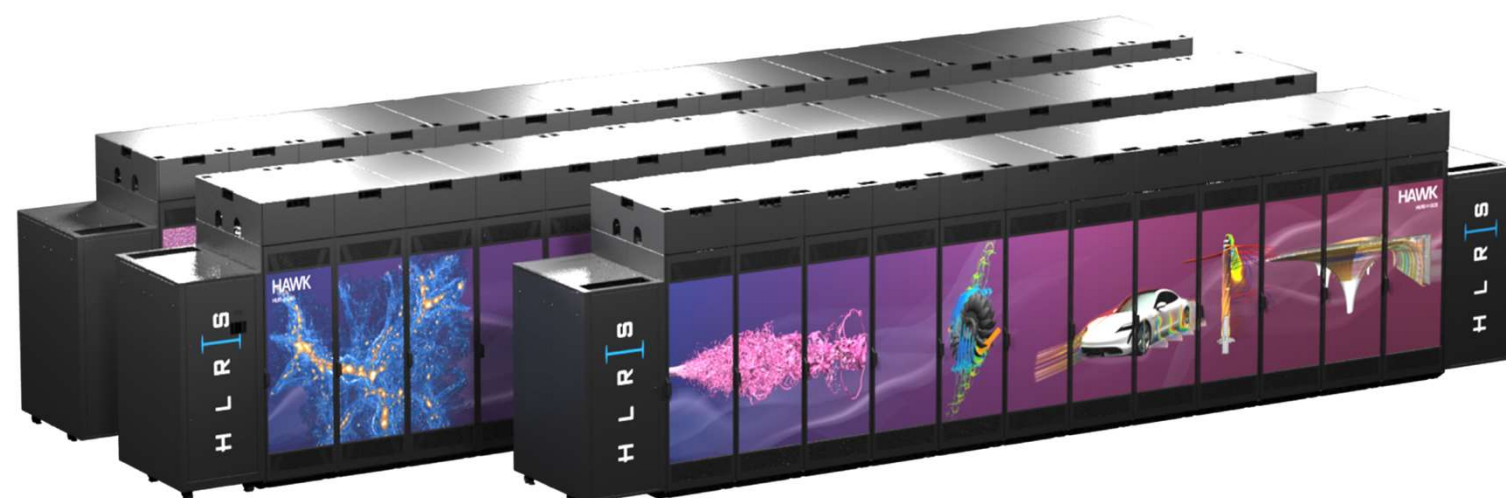
Digital Twin of Herrenberg



Emilia-Romagna. Il futuro lo facciamo insieme.

High-performance computing center

Stuttgart, Germany



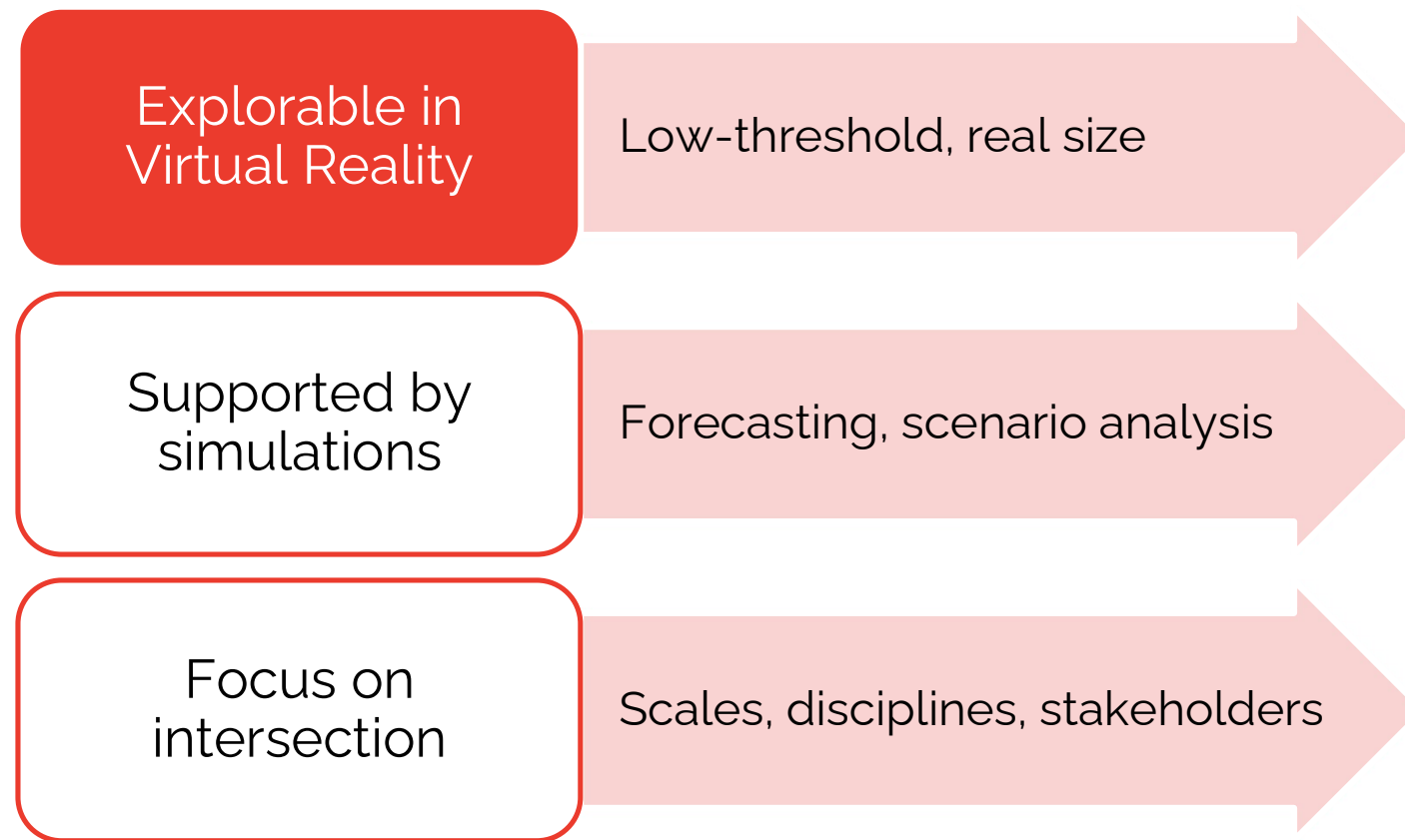
Supercomputer *Hawk*



5-sided CAVE

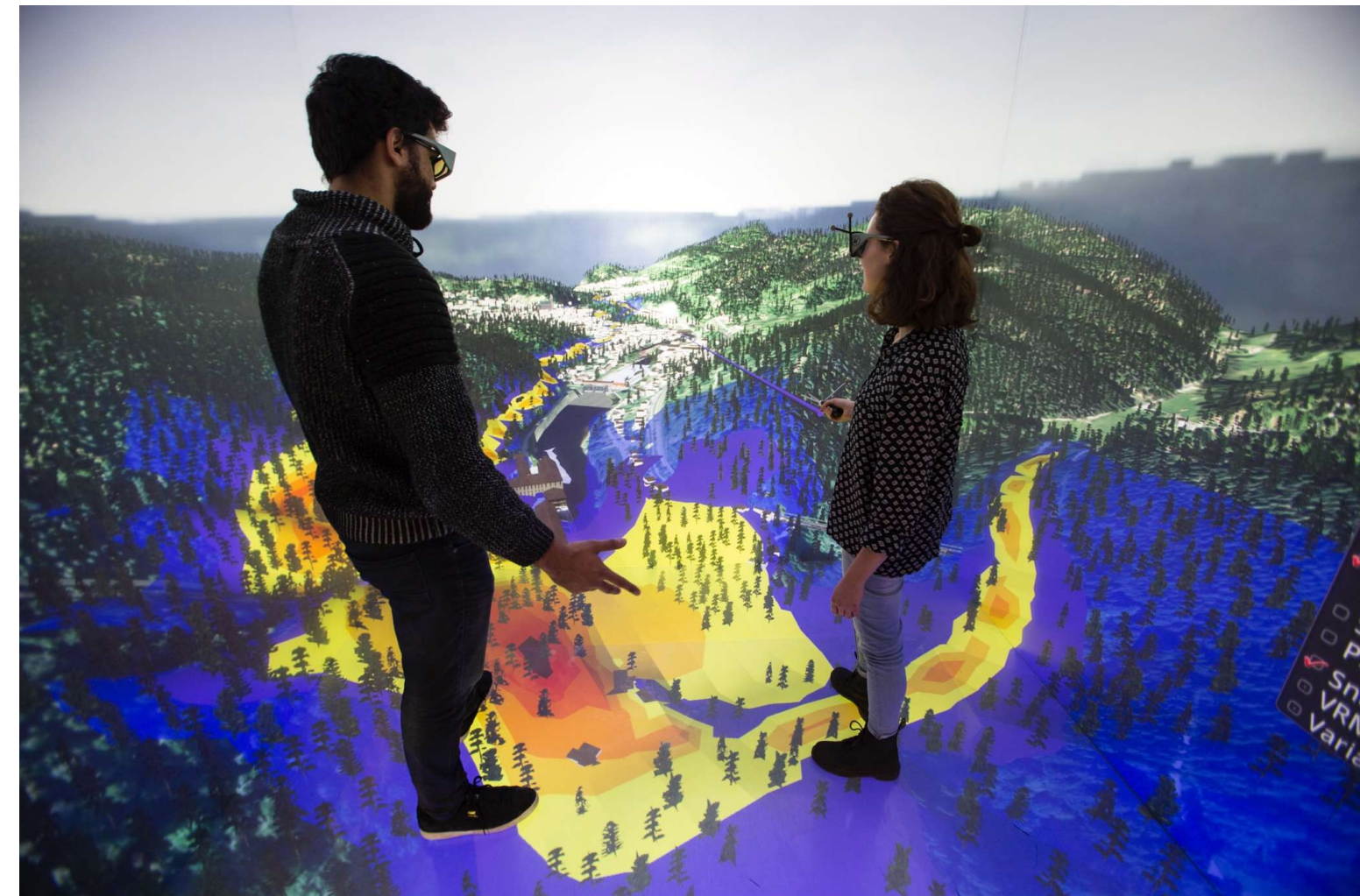
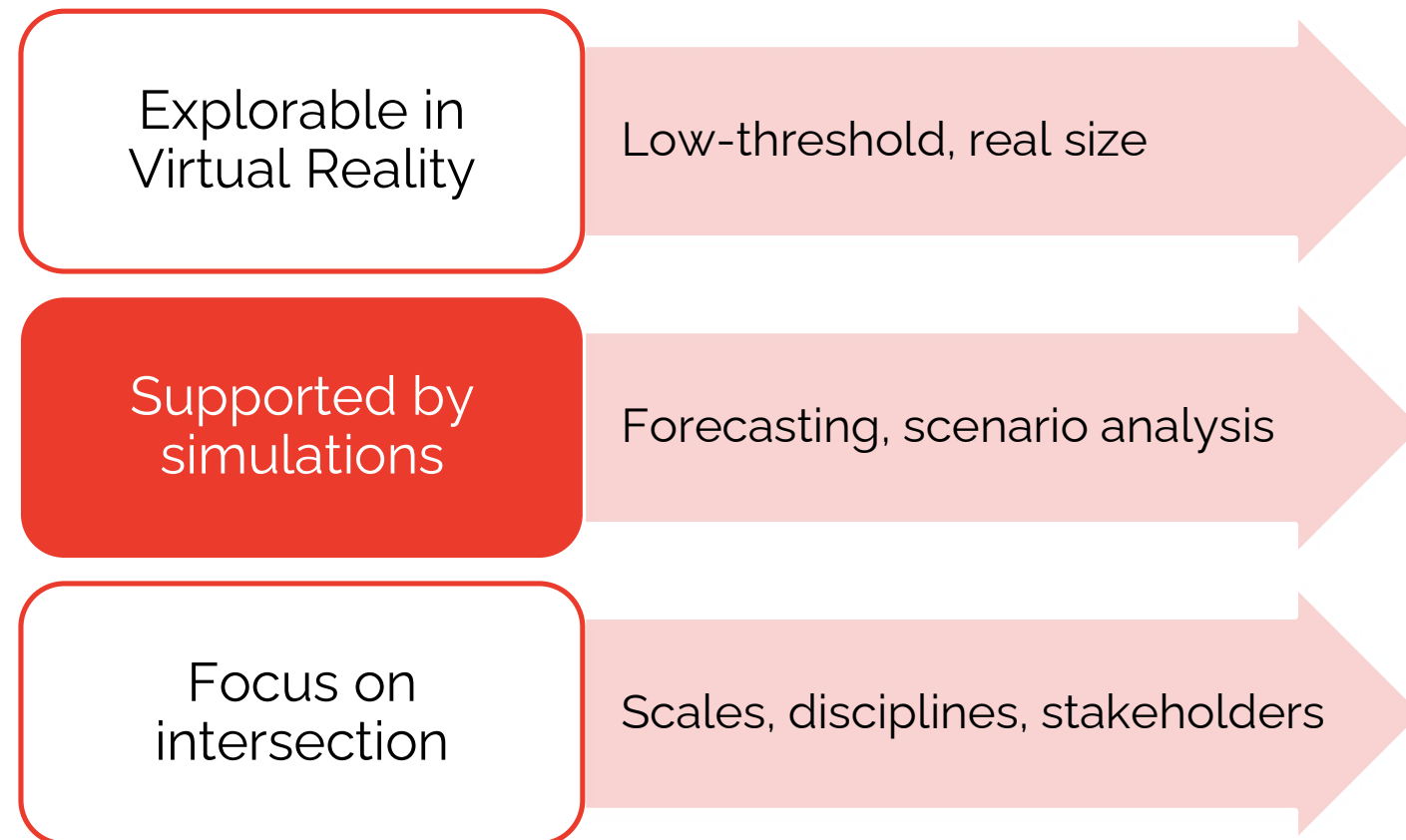
Digital Twins at HLRS

Immersive Digital Twins



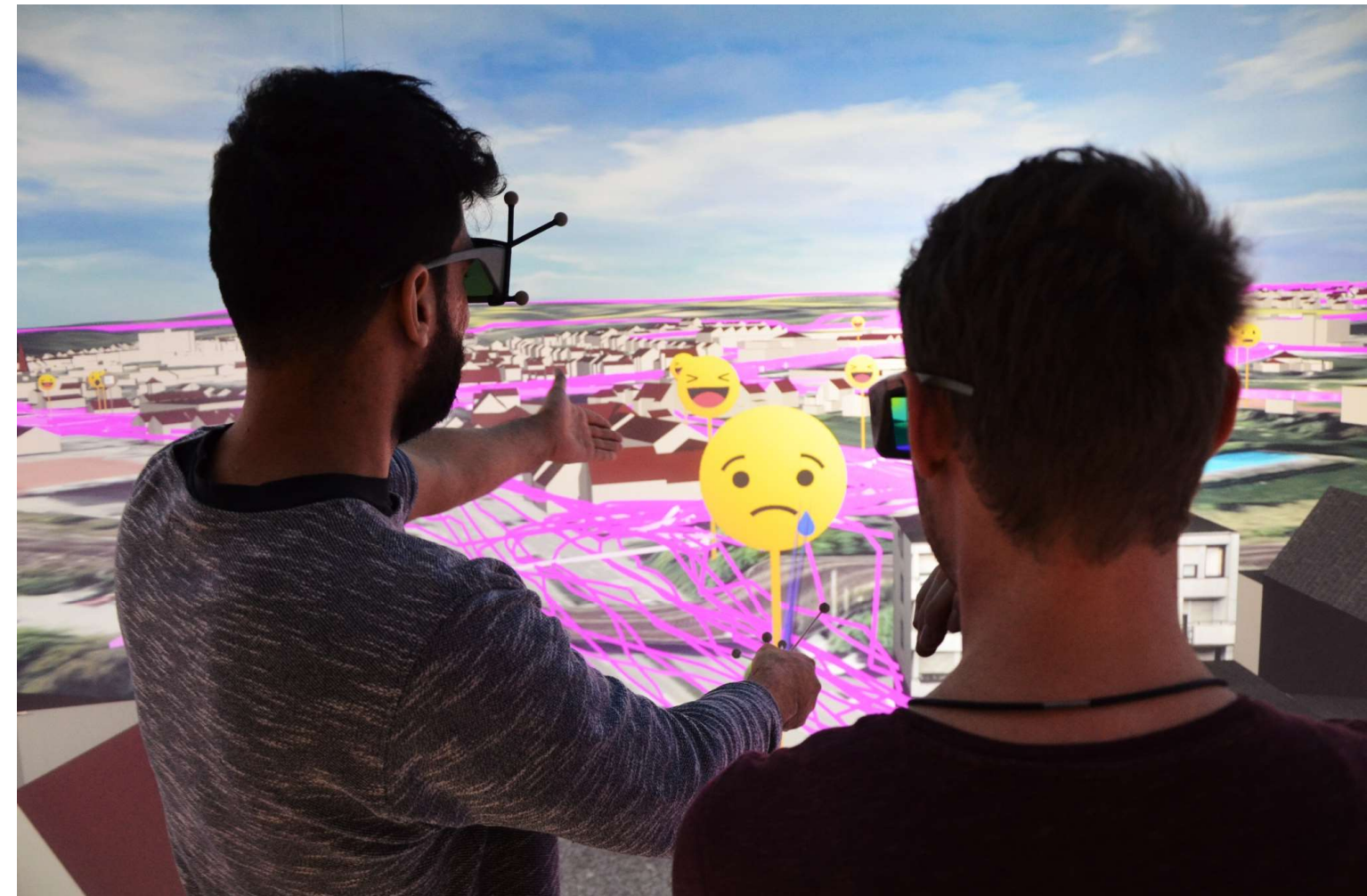
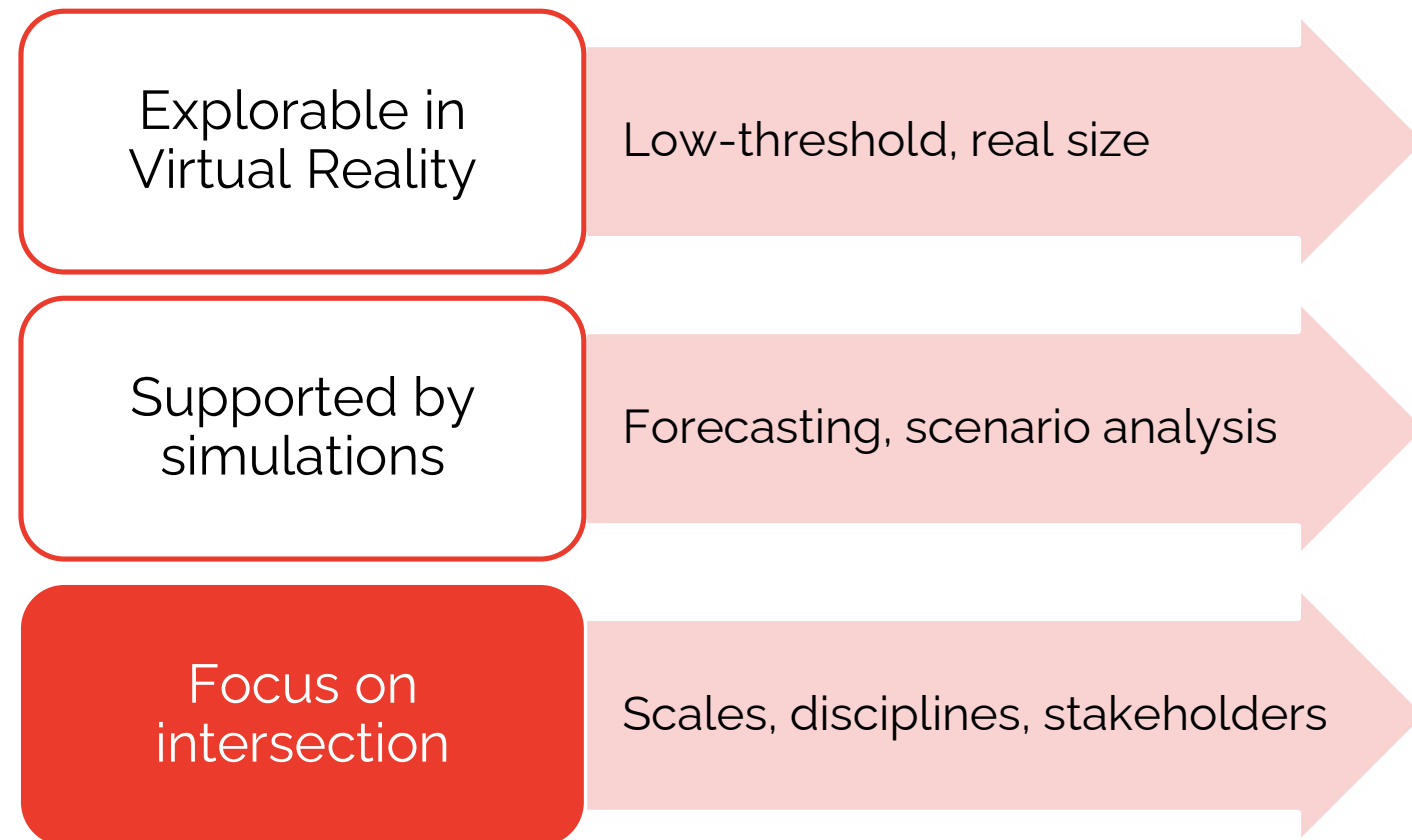
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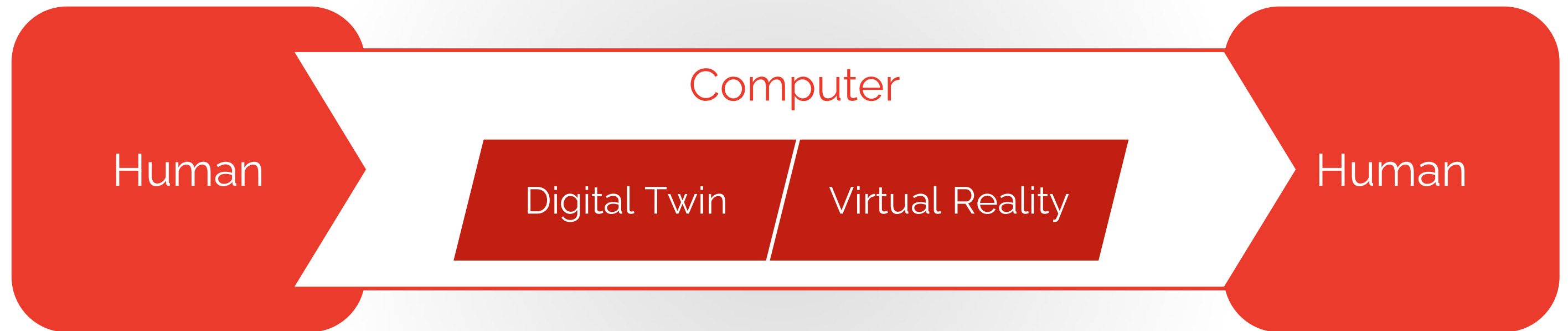


Digital Twins at HLRS

Immersive Digital Twins



Immersive Digital Twins



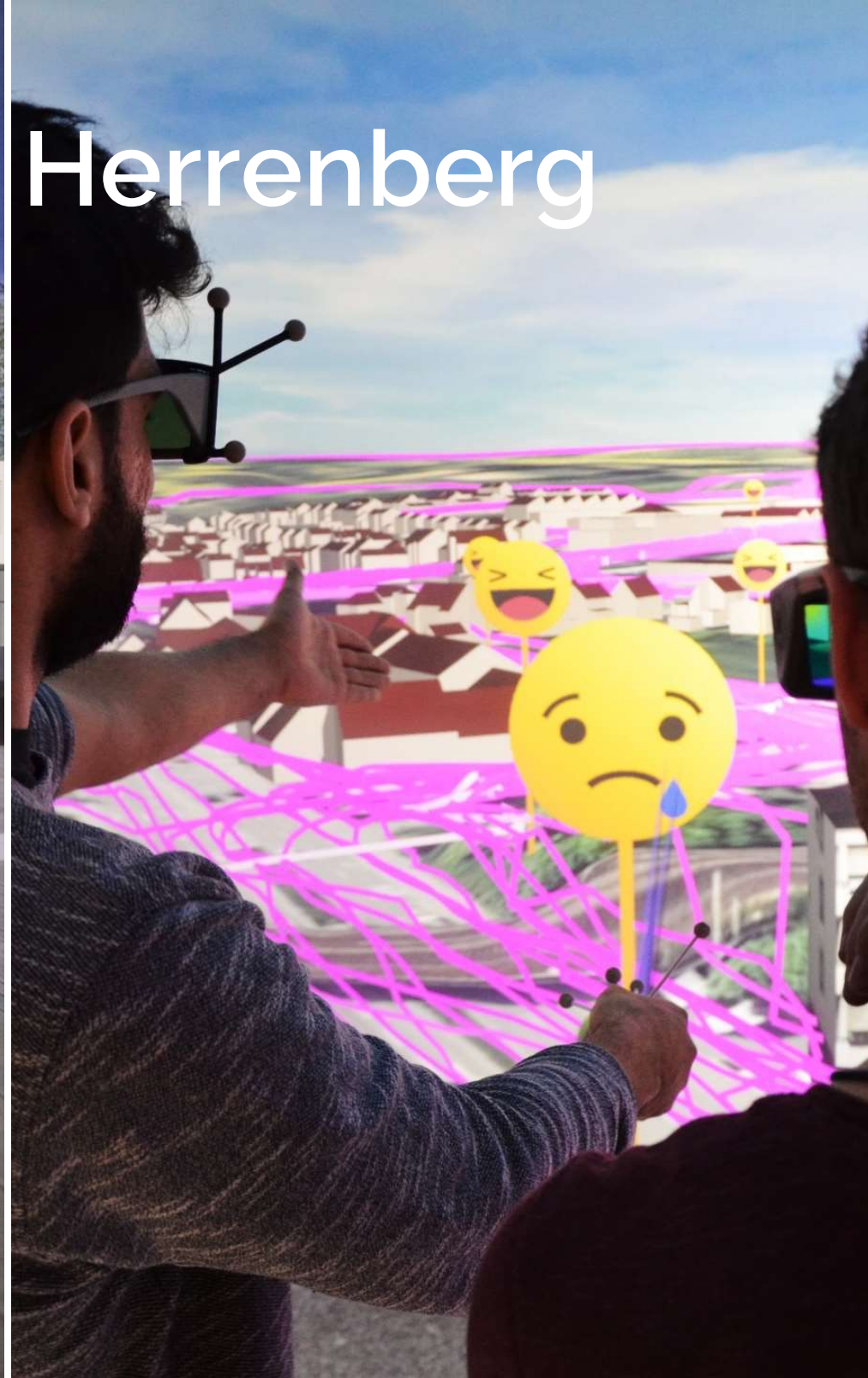


Digital Twin of Herrenberg

Motivation

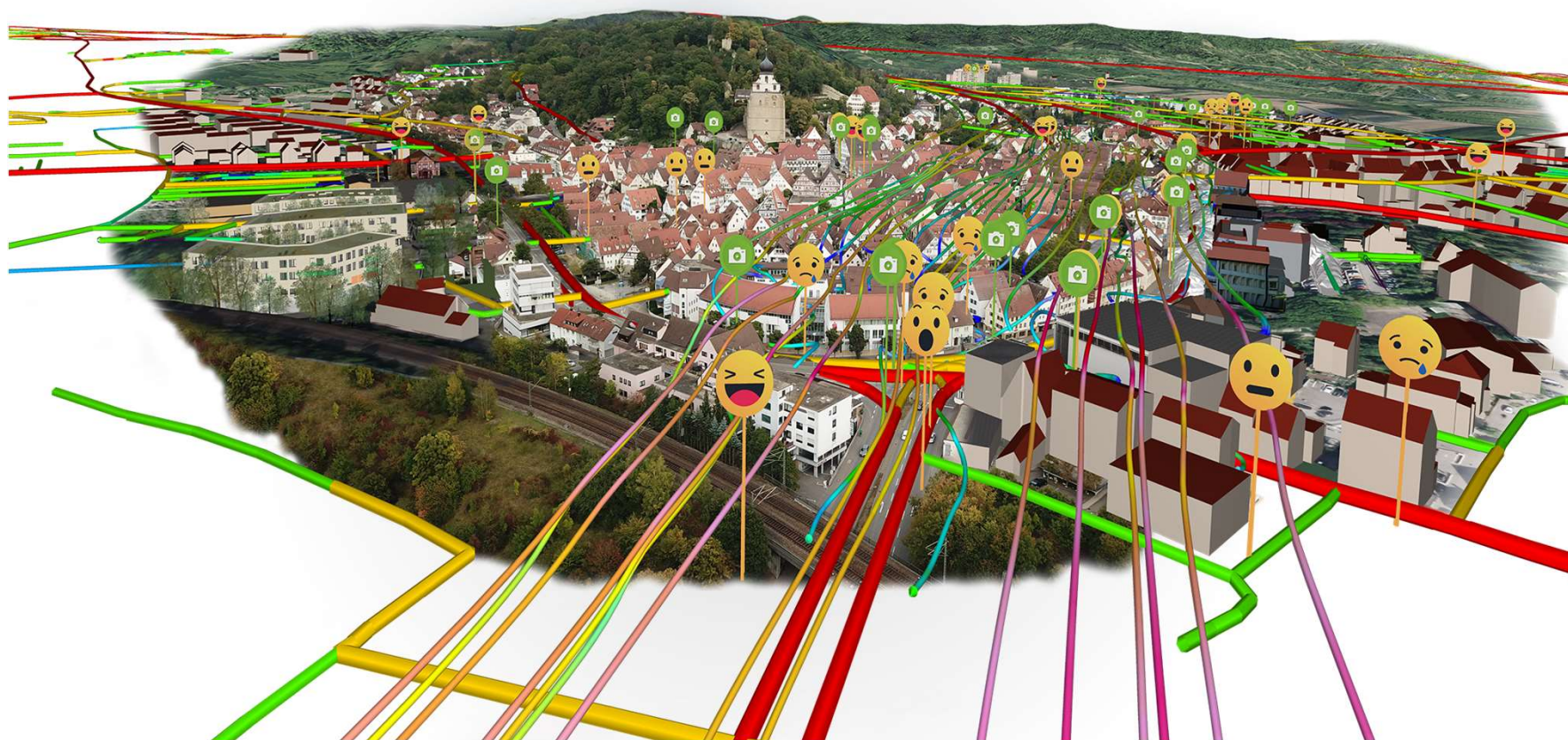


Digital Twin of Herrenberg



Digital Twin of Herrenberg

Data



Buildings

- 3D city model
- Laser scans
- BIM

Traffic

- Street network modelling
- Traffic simulations

Citizen science

- Movement patterns of citizens
- Urban emotions

Air quality

- Wind flow simulation
- Pollution sensor data

Digital Twin of Herrenberg Execution



- Variants
- Options...
 - Region of Interest...
 - Radwege
 - Empfohlene Radwege
 - G13
 - K8
 - 70
 - Jugendliche
 - 1315K11
 - StatusQu...
 - Gefahr...
 - Austr...

Impact

Immersive Digital Twins



Fact-based decision making



Communication, understanding and involvement



Bring together all stakeholders



Grazie dell'attenzione

Leyla Kern
HLRS



Emilia-Romagna. Il futuro lo facciamo insieme.



Video

<https://www.youtube.com/watch?v=hNiRhOLDdeY>

AI

Currently

Image Recognition

- Trajectories of cyclist and pedestrians

Outlook

- AI to improve visualization (performance, LoD, ...)
- AI for model generation
- AI for data analysis and decision-making

