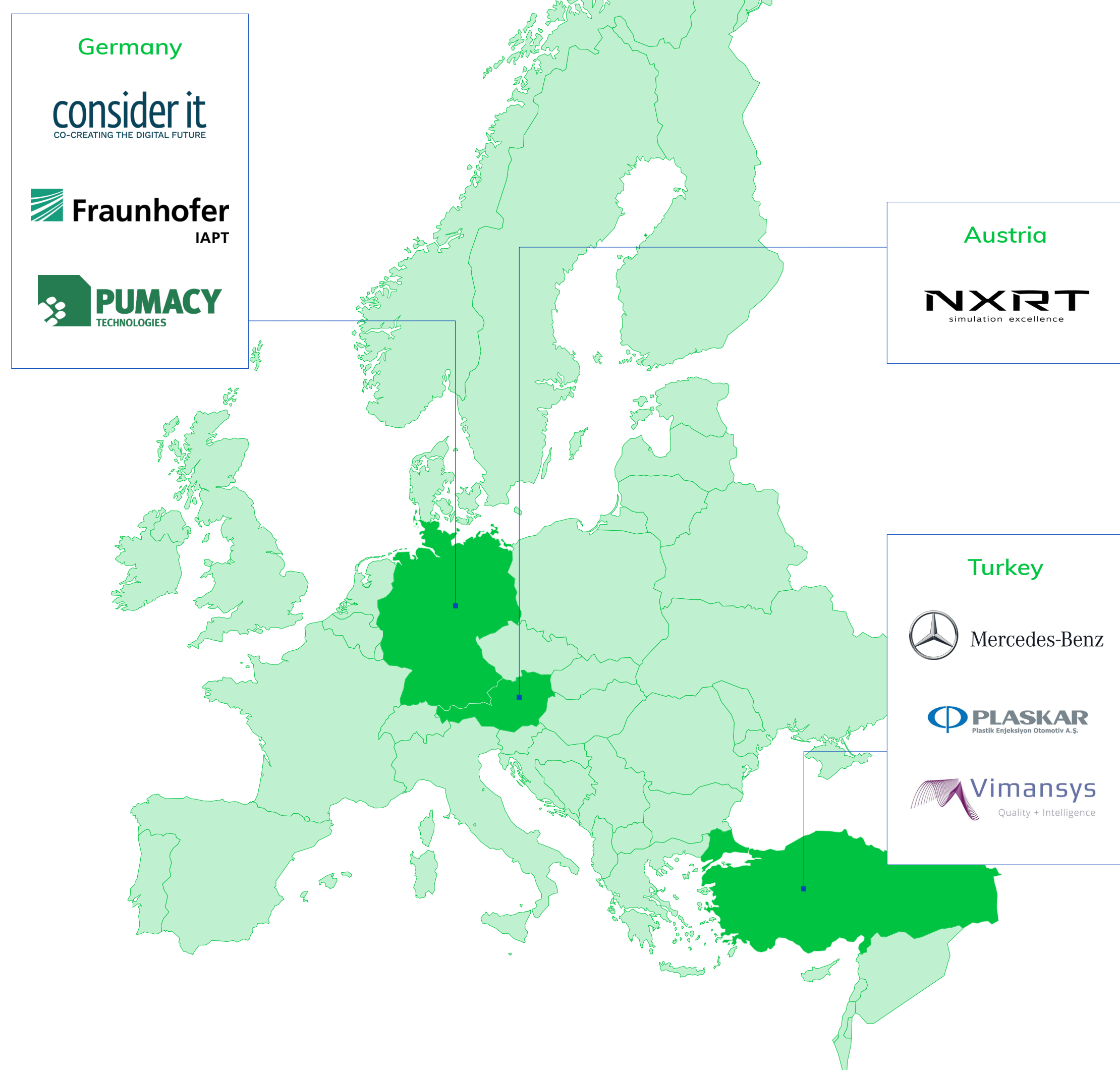# FAMILIAR

ITEA 4

Decentralising federated machine learning in industry

Project summary

The term 'federated machine learning' (FedML) is popular in the context of publicly funded R&D projects. Still, it is rarely used in industry, least of all in combination with other leading technologies such as XR and AM. FAMILIAR wants to create FedML solutions using head-mounted displays (HMDs). The solution shall be embedded and tested in real-life applications, such as automotive engineering, maintenance & training, welding and human-robot collaboration. To establish the use-cases, sophisticated data mining techniques will be combined with deep learning.

Consortium

Germany
- consider it — CO-CREATING THE DIGITAL FUTURE
- Fraunhofer IAPT
- PUMACY TECHNOLOGIES

Austria
- NXRT — simulation excellence

Turkey
- Mercedes-Benz
- PLASKAR
- Vimansys — Quality · Intelligence

Project duration

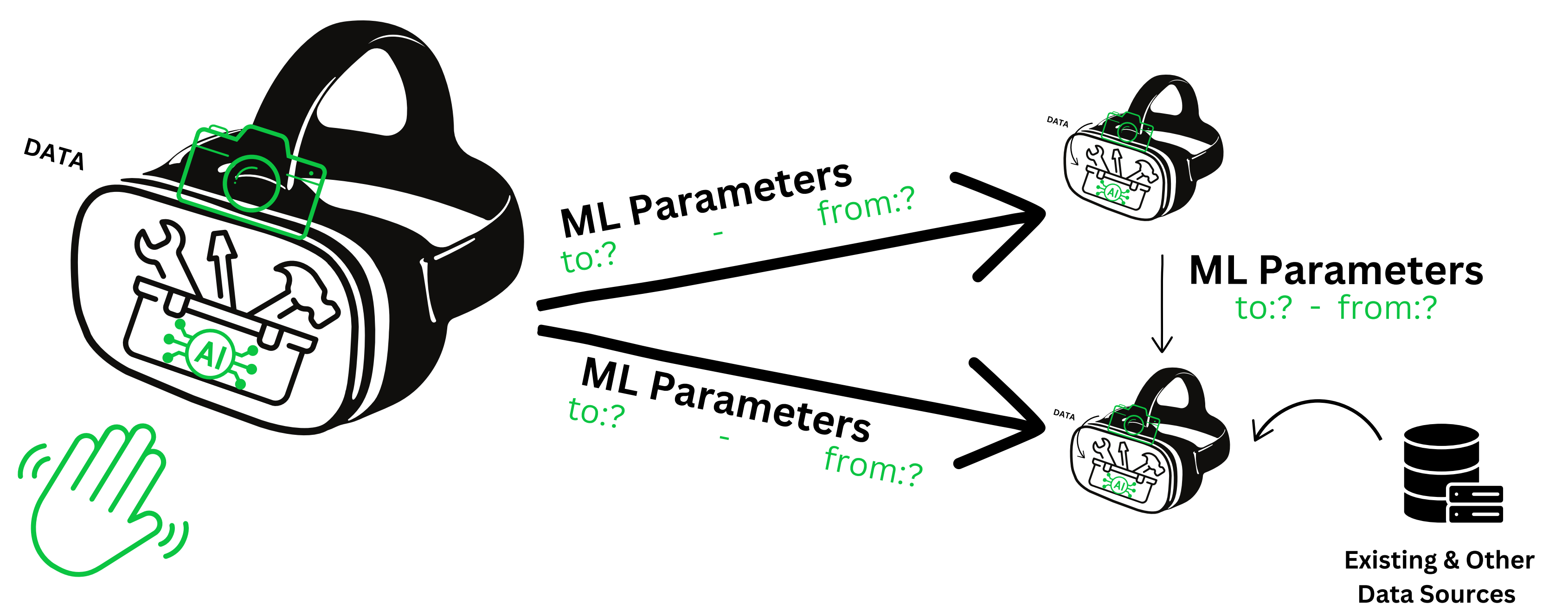June 2022 - May 2025

Expected key results / Unique advantages

> Creating an use-case agnostic FAMILIAR system. Providing XR applications with ML-capabilities in a FedML architecture

> Realizing three use-cases in the domains of automotive and manufacturing

> Enabling data-privacy-preserving and collaborative learning between edge-devices

FAMILIAR webpage

SCAN ME

https://itea4.org/project/familiar.html

Architecture Visualisation

DATA

ML Parameters to:? - from:?

ML Parameters to:? - from:?

ML Parameters to:? - from:?

Existing & Other Data Sources

Contact

Julian Ulrich Weber
Fraunhofer IAPT
E: julian.ulrich.weber@iapt.fraunhofer.de
T: +49 151 67969608