MIXER

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MIXER

Co-innovation research project funded by Business Finland

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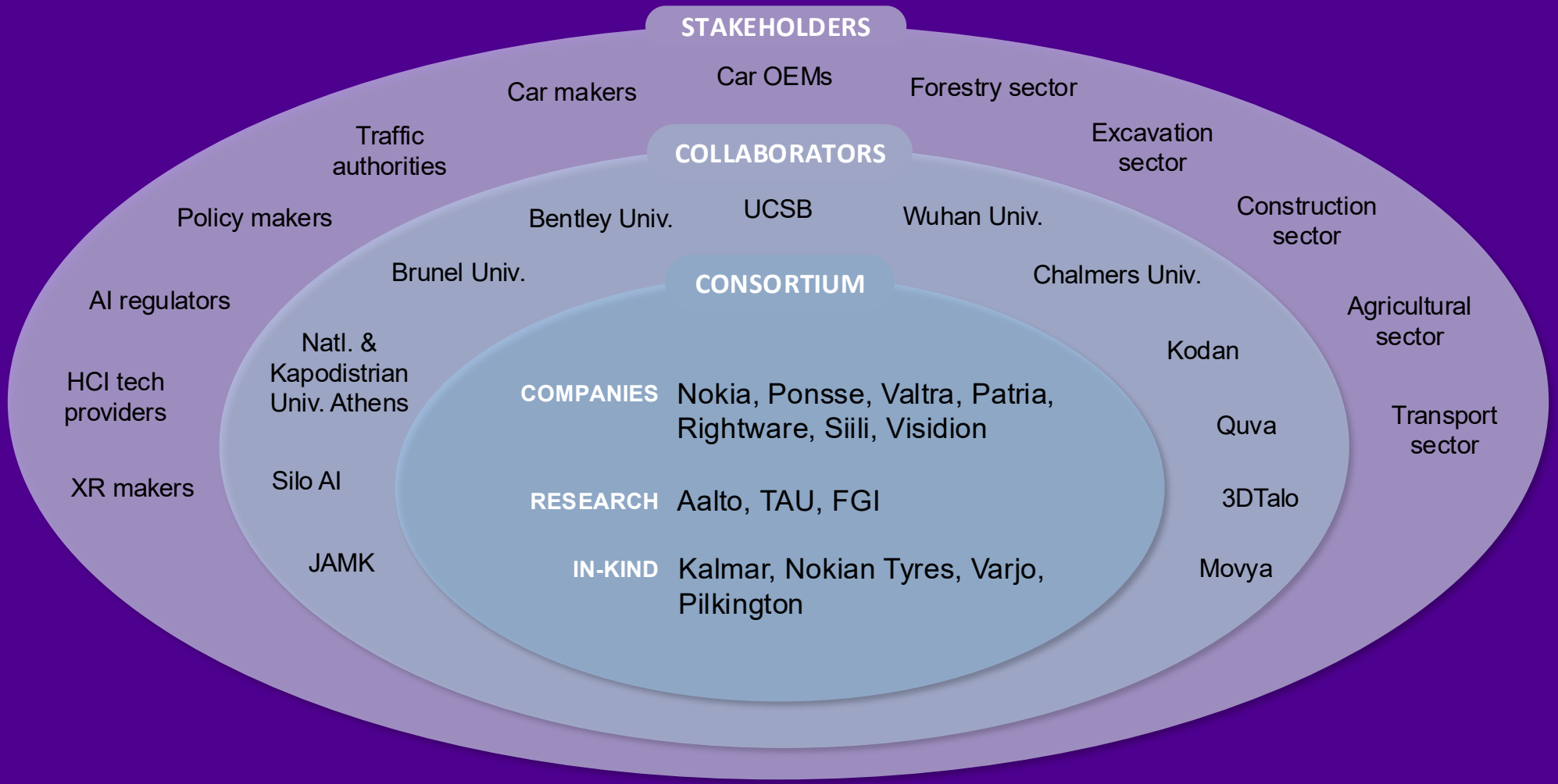
A part of **Nokia Veturi 2 Competitive EDGE program and Ponsse/EPEC FORWARD-27 veturi program & Patria eAlliance**

Budget: **9 M€**, BF-funding **4,7 M€**

Consortium: 7 company projects, **3** research projects, **4** in-kind companies

MIXER Ecosystem



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Key topics for MIXER

Information display

- Prioritize critical info
- Study HUDs, AR
- Study alternative visuals

Situational awareness

- Situation perception, recognition, prediction
- Sensing inside and outside of the vehicle

Multimodal interaction

- Use different human senses adaptively
- Selection by context

AI tools

- Support and augment complex tasks with AI
- Enhance operators' skills

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International collaboration

Trends, driving factors

- Heavy machines and cars share many trends
- Passenger cars are changing rapidly
  - EVs, V2X, autonomy, remote, sharing economy
- New car technologies are useful to heavy machines
  - But heavy machine use is different, human-vehicle interaction is different:
- Research for new interaction solutions is needed!

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MIXER Objectives

- Improve safety
- Increase efficiency
- Enhance user experience
- Enable remote operation
- Improve training
- Promote sustainability

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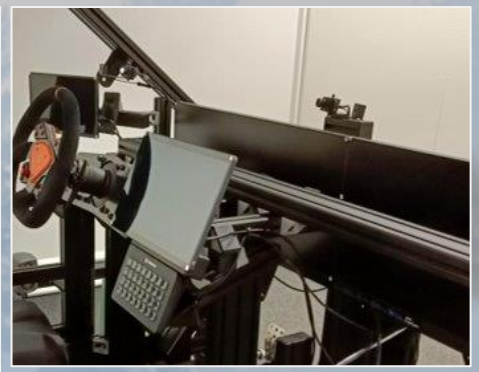
Research: from labs to the field

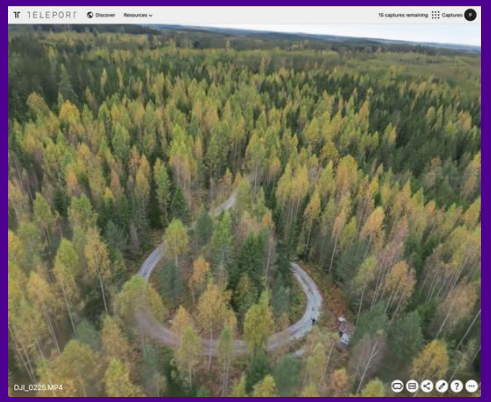


Ongoing research

Simulator

TDA in 2D, 3D, and VR/AR

3DGS



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Thank you!