CALL FOR PARTNERS

COGNIDRIVE

Partner call open until: July 15, 2026

Project start: September 1, 2026

From gaze to cognition

Modern driver monitoring systems typically detect fatigue or distraction based on visible behavioral indicators such as blinking, looking away, or steering wheel movements. COGNIDRIVE goes beyond this and addresses the cognitive and attentional processes underlying gaze behavior.

The project is based on complex gaze behavior models that take visual attention, information processing, and situational understanding into account.

Through the multimodal recording of gaze dynamics, fixation patterns, saccades, pupil dynamics, and contextual information, the project aims to draw conclusions about attention focus and distribution, cognitive load, situational awareness, and responsiveness.

Project Objective

The goal is an intelligent system that not only recognizes that a person is tired or distracted, but also why and what cognitive state they are in. This allows adaptive assistance systems to intervene in a targeted manner—for example, through context-dependent warnings, information reduction, or automated driving functions.

Partners needed

- Automotive **OEMs** and / **Tier 1**
- Sensor and **Camera Development**
- **AI** / **Computer Vision**
- **Human Factors** / Neuroergonomics
- **Embedded Systems**

Expected Outcomes

- Modeling of complex **gaze behavior** and **attention processes**
- **Sensors** and **data acquisition** (eye tracking, infrared, RGB, multimodal)
- **Signal processing** and **AI models** for inferring states
- **Real-time capability** and system integration in
- vehicles Data protection and **ethical aspects** of cognitive driver state models

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