



FLOW

Flexible Mobility and Cargo System for
Factory Traffic



Supported by:



Federal Ministry
for Economic Affairs
and Climate Action



SCHAEFFLER

on the basis of a decision
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Autonomous micro vehicles as a module for future mobility

Increasing requirements for efficiency and sustainability in logistics represent a central challenge of our time. The project FLOW therefore addresses new solutions for the mobility of people and goods – in particular micro mobility and vehicle automation. The project focuses on a highly accurate localization of the vehicles – especially in the transition between outdoor and indoor areas.

The project partners ANAVS, SCHAEFFLER, FZI and KIT work closely together to develop a cost-, energy- and space-optimized solution for the challenging automated driving function. Automated guided vehicles (AGVs), automated cargo bikes and movers (rolling chassis) serve as exemplary vehicle platforms.

The testing of the exemplary automated mobility and cargo system will take place in a closed area on the KIT Campus East in form of a factory site.

Main research goals

- Development of an AI-based autonomous driving function
- Safe collision-free trajectory planning with a focus on the efficient resolution of intersection scenarios
- Investigation of low-power applications, such as neuro-morphic hardware for AI-based environment recognition



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The FZI Research Center for Information Technology is a non-profit institution for applied research in information technology and technology transfer. Its task is to provide businesses and public institutions with the latest research findings in information technology.