



ANYMOS – Anonymization for Interconnected Mobility Systems

Making Personal Mobility Data Usable while Preserving Privacy

Future mobility solutions will be data-driven and highly user-centric. Personal data is often essential but subject to data protection regulations. The ANYMOS competence cluster applies specific use cases to investigate the use of anonymization techniques while maintaining the usefulness of the data. The advantage of anonymization in reducing uncertainties about the data protection-compliant handling of personal data must not be at the expense of the usability of the data for specific

applications. ANYMOS aims to establish a process model that guides companies in identifying anonymization needs and opportunities, selecting suitable state-of-the-art methods, applying them correctly, and identifying and assessing systemic re-identification risks. The exhibit illustrates the process of anonymization while preserving the usability of the data using different mobility applications.

How does the exhibit contribute to the topic of sustainability?

More efficient use of the existing infrastructure is essential for the successful scale-up of public transport in Germany. This requires extensive data for detailed forecasts and intelligent, personalized recommendations to users without compromising their privacy.

Contact person



Oliver Denninger

+49 721 9654-270

denninger@fzi.de

FZI Forschungszentrum Informatik
Haid-und-Neu-Straße 10–14
76131 Karlsruhe, Germany



[More about the the research project](#)



Research Vehicle CoCar NextGen

Pioneering Research Platform for Automated and Connected Driving

CoCar NextGen is a pioneering research vehicle for automated and connected driving. Equipped with various high-end sensors, high-performance hardware, and modern networking components, the Audi A6 Avant plug-in hybrid was built independently by the FZI. The modular design enables it to be used for a wide range of applications and research in new mobility concepts. For the first time, the vehicle is not only designed for special test fields but is also approved for all German roads for carrying out test, measurement, and trial drives. The integration of the smart infrastructure of the Test Area Autonomous Driving Baden-Württemberg (TAF BW) in

particular offers interesting application scenarios. The range of applications covers freeway sections, state and federal roads as well as complex urban mixed traffic with bicycles and pedestrians, traffic-calmed areas and parking garages. This enables the FZI and interested companies to test cutting-edge research results directly in reality, research new approaches, and further develop automated driving software. The extensive equipment of CoCar NextGen is unique. This includes a comprehensive camera, radar, and LiDAR setup connected to a powerful server. A sophisticated energy system with a battery allows emission-free development operation for several hours.

How does the exhibit contribute to the topic of sustainability?

With its modular design, CoCar NextGen is intended to be a long-lasting research platform whose components can be easily upgraded. One of CoCar NextGen's research goals is to enable autonomous driving in urban areas and thus reduce CO2 emissions and traffic in city centers. Zero-emission use is made possible by the electrified drivetrain.

Contact person



Sven Ochs

+49 721 9654-375

ochs@fzi.de

FZI Forschungszentrum Informatik
Haid-und-Neu-Straße 10-14
76131 Karlsruhe, Germany



[More about the exhibit](#)



[Video: CoCar NextGen](#)



[Video: Technical Data CoCar NextGen](#)



Robot-Based Dynamic Recycling of E-Waste

Robust Robotics for Production and Recycling

The FZI Research Center for Information Technology demonstrates flexible e-waste recycling with an intelligent robot cell. Electrical components must first be broken down into their parts to feed into the recycling loop. Recycling is only possible once hazardous or non-recyclable components have been removed. Dismantling is complex and requires varying work steps and force-based handling. The process is, therefore, still predominantly carried out manually. The aim is to automate

this process with a flexible robot for production and dismantling. The demonstrator shows how even difficult-to-handle components, despite being jammed, can be removed with the help of learned handling strategies. 3D sensors monitor the workspace during operation, and the arm's movements are immediately adapted to obstacles. Adaptive planning enables work steps to be carried out even if processes or the work area change.

How does the exhibit contribute to the topic of sustainability?

Flexible robot-based recycling of electronic waste allows electronic components to be dismantled more effectively and the individual parts to be fed into the recycling cycle. Recycling of the used resources saves raw materials and enables the removal of hazardous substances at an early stage.


Contact person



Georg Heppner

 +49 721 9654-248

 heppner@fzi.de

 **FZI Forschungszentrum Informatik**
Haid-und-Neu-Straße 10-14
76131 Karlsruhe, Germany



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LLMM – Large Language Media Manipulator

Demonstrator: Raising Awareness about Information Manipulation by Language Models

The LLMM demonstrator has two main objectives: firstly, to explain language model technology understandably, and secondly, to raise awareness of how easily information can be manipulated. To this end, current news articles are selected and then automatically processed by language models to demonstrate various manipulation aspects. One example is a style change in an article, showing how differences in linguistic nuances and styles can influence the perception of a topic. Another example is a change of the political viewpoint in an article: a neutral article can be

rewritten to reflect the viewpoint of a particular political group or party. This illustrates how easily information can be manipulated to support a specific agenda. With these demonstrations, we want to encourage a critical perception of consumed information and the verification of the sources. We also want to inform about the ability of language model technology to manipulate information and raise awareness of how easily human perception can be influenced.

How does the exhibit contribute to the topic of sustainability?

The demonstrator contributes to the sustainability of democracy by promoting an understanding of information manipulation, fostering critical thinking, and promoting informed decision-making in a democratic society, thereby strengthening the integrity and resilience of democratic processes.

Contact person



Dr. Jonas Fegert

+49 30 7017337-338

fegert@fzi.de

FZI Forschungszentrum Informatik

Berlin Branch

Friedrichstraße 60

10117 Berlin, Germany



[More about the the research project](#)



Climate Coaching for SMEs

Supporting the Transformation to a Climate-Neutral Company

“Spin the wheel for advice on sustainability” – that’s the motto of the climate coaches from the Mittelstand-Digital Zentrums Klima.Neutral.Digital at the “Wheel of Sustainability”. The climate coaches support small and medium-sized enterprises in identifying courses of action for the transformation towards climate neutrality and developing an implementable sustainability strategy. The “Wheel of Sustainability” covers key topics that are, from a company’s perspective, important in the areas of sustainability and

climate neutrality. Turning the wheel picks a random topic from the subject areas of legal regulations, dimensions, strategies, or methods, which can serve as a concrete basis for discussion with a climate coach. The wheel’s choices provide an easy introduction to the wide range of sustainability topics and allow for a targeted discussion of the challenges and opportunities, particularly those introduced by digitalization technologies.

How does the exhibit contribute to the topic of sustainability?

The exhibit highlights relevant sustainability management topics from a company perspective and offers exciting ideas and impulses for discussion with managing directors, sustainability officers, and other employees on subjects such as the environment or energy.

Contact person



Natalja Kleiner

+49 721 9654-844

natalja.kleiner@fzi.de

FZI Forschungszentrum Informatik
Haid-und-Neu-Straße 10–14
76131 Karlsruhe, Germany



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Digital Hub applied Artificial Intelligence (Karlsruhe)

Substantial Support along Your AI Journey!

Along with partners from its network, the Digital Hub Karlsruhe presents itself with a station at the stand of the FZI Research Center for Information Technology. Every day of the trade fair, a different start-up or company from the hub network will present itself and its services, true to the hub's mission: putting AI methods and technologies into practice!

The Digital Hub sees itself as a central networking platform and nationwide contact point for AI experts and users or prospective users. Its strong network – consisting of start-ups, SMEs, and international corporations as well as research and transfer institutions – supports AI experts and users with tailor-made offers, from establishing basic knowledge, brainstorming, and supporting the identification of use cases all the way to partner matching for the implementation of specific projects.

The Digital Hub is part of the federal government's de:hub initiative, initiated by the Federal Ministry for Economic Affairs and Climate Action in 2017. The joint project, led by the DIZ | Digitales Innovationszentrum GmbH, is being funded by the Baden-Württemberg Ministry of Economic Affairs, Labor and Tourism since 2019. It is also part of the Karlsruhe-based European Digital Innovation Hub applied Artificial Intelligence and CyberSecurity (EDIH-AICS) and offers its services within this framework.

This is what the Digital Hub applied Artificial Intelligence Karlsruhe offers:

- Workshops for AI strategy development
- AI Readiness-Check
- AI use case workshops
- AI partner matching
- Project initiation and support
- Visibility and events
- Networking opportunities and ecosystem maintenance

These partners will be represented at the stand:

- Monday, April 22: Trail UG
- Tuesday, April 23: preML GmbH
- Wednesday, April 24 AMEXIS GmbH
- Thursday, April 25: AskUI GmbH
- Friday, April 26: StableFlame GmbH

Contact person



Sebastian Felzmann

+49 721 9654-977

felzmann@fzi.de

FZI Forschungszentrum Informatik
Haid-und-Neu-Straße 10–14
76131 Karlsruhe, Germany



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