

FACTS AND FIGURES

The Fraunhofer ISI has been shaping the innovation landscape both in Germany and internationally since its foundation in 1972. Its contractual partners and clients comprise industrial and service enterprises as well as the public sector. More than 15 percent of its budget comes from contracts with industry. About 50 percent is generated from publicly financed national research projects; around 15 percent is commissioned by the European Union.

SELECTED CLIENTS



Federal Ministry of Education and Research
Federal Ministry of Economics and Technology
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety



HEAD

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The Competence Center consists of four Business Units:

- Water Resources Management
- Transportation Systems
- Sustainability Innovation and Policy
- Systemic Risks

Fraunhofer Institute for Systems and Innovation Research ISI
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HOW TO FIND US

By car | On the A5 motorway, take the exit Karlsruhe-Durlach and drive towards Karlsruhe on the B 10 then follow the signs for Waldstadt.

By tram | From the main train station (Hauptbahnhof), take Tram 4 in the direction of Waldstadt to the tram stop Glogauer Strasse (approx. 25 minutes).

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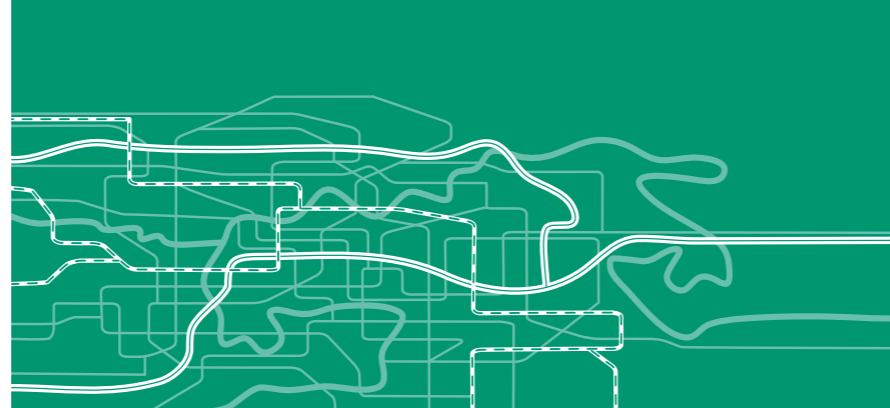
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SUSTAINABILITY AND INFRASTRUCTURE SYSTEMS





SUSTAINABILITY AND INFRASTRUCTURE SYSTEMS

The Fraunhofer Institute for Systems and Innovation Research ISI analyzes the origins and impacts of innovations. We research the short- and long-term developments of innovation processes and the impacts of new technologies and services on society. On this basis, we are able to provide our clients from industry, politics and science with recommendations for action and perspectives for key decisions. Our expertise lies in a broad scientific competence as well as an interdisciplinary and systemic research approach.

OUR COMPETENCES

Sustainable development requires entire systems to be reorganized along more environmentally and socially sound lines. The Competence Center Sustainability and Infrastructure Systems takes a system perspective when analyzing the conditions of this reorganization. We consider economic, political and social aspects as well as ecological ones.

Innovations which improve the efficiency of resource use and reduce emissions are necessary to decouple economic growth from resource consumption and environmental pollution. We strengthen this knowledge basis.

Moving in the direction of sustainability can open up new economic opportunities, not only in industrial, but also in developing countries, but this requires the structural framework conditions to be adapted. Especially in infrastructure systems, different kinds of path dependencies have to be overcome. Our studies indicate how different sustainability goals can be reconciled.

In every field, we look at innovations in individual products and production processes as well as the long-term developments at sectoral level. Our team of economists and social scientists, engineers and natural scientists combines a range of advanced methods and application-oriented expertise. Our scientific analyses give our clients from politics, administrations, associations and companies a stimulus for sustainable development.

OUR BUSINESS UNITS

Water supply and wastewater disposal have to be adapted to challenges such as new pollutants or demographic and climate changes. The *Business Unit Water Resources Management* analyzes developments and formulates measures which contribute to the sustainability of infrastructure systems.

Efficient transport systems are indispensable for the economy and society, but the increasing demand for mobility harbors risks for both the climate and the environment. The *Business Unit Transportation Systems* develops innovative transport concepts and examines the impacts of transport policy instruments.

Environmental protection and innovation are gradually merging by increasingly integrating environmental technologies into processes, products and systems. The *Business Unit Sustainability Innovation and Policy* analyzes innovation processes and policy instruments to improve resource efficiency and explores the competitiveness of sustainable future technologies.

The physical foundation of our society is exposed to diverse risks. The *Business Unit Systemic Risks* investigates the effects of changing framework conditions and identifies and evaluates policy options for a more robust and sustainable supply of energy, water, mobility and raw materials.

OUR RANGE OF SERVICES

- Evaluation of technologies and policy options
- Scientific monitoring of new infrastructure concepts and technologies from planning to implementation
- Innovation system analyses for resource-saving technologies and infrastructure systems
- Estimating innovation dynamics and performance in future "green" markets
- Design and analysis of innovative policy instruments and company strategies
- Assessing the ecological, economic and societal consequences of sustainability strategies
- Dynamic modeling of anthropogenic material cycles

SELECTED PROJECTS

- Towards sustainable water management (TAB innovation report)
- iTREN-2030: Integrated transport and energy baseline in Europe until 2030
- Integration and transfer project r²: Innovative technologies for resource efficiency – resource-intensive production processes
- Critical raw materials for the EU