

FRAUNHOFER INSTITUTE FOR HIGH-SPEED DYNAMICS, ERNST-MACH-INSTITUT, EMI

HOW TO WORK WITH US

Research and development contracting

- Reliable and flexible
- Customized to clients' needs

PhD track for industry

- Talented junior scientists
- Flexible contract models

Strategic partnerships

- Designed for the long term
- Joint research roadmapping

Joint projects

- Public funding
- Joint application



CONTACT

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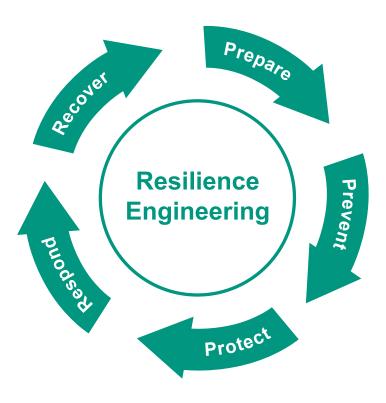


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SOLUTIONS FOR URBAN RESILIENCE





WHO WE ARE

Fraunhofer EMI is an institute of the Fraunhofer-Gesellschaft, Europe's largest application-oriented research organization.

We have specialized in investigating physical-technical processes in materials, structures and components as they occur, for instance, during crash or impact.

Our research contributes to increased safety and security, reliability, sustainability as well as **resilience** in our society.

We derive our strength from the combination of experiment, modeling and numerical simulations as well as from many years of experience in our fields of application.

OUR BUSINESS UNITS











WHAT WE OFFER

In our business unit security, we work on engineering tools, methods and technologies for real-life applications to quantify as well as strengthen resilience.



Prepare

- Quantitative risk analysis for urban security
- Simulating complex adaptive systems behavior
- Auditing the process of system and product development
- Academic training in the field of risk analysis and technical safety

Prevent

- Software tools for urban resilience management
- Modeling of cascading effects in coupled infrastructure networks
- Analyzing and improving technical safety of complex systems



Research topic: software tool for urban resilience management.

Protect

- Development of security concepts and protective measures
- Retrofitting methods for built infrastructure
- Testing and improving protective materials

Respond

- Damage assessment for disruptive events
- Quantitative resilience analysis
- Sensor technologies to support relief forces

Recover

- Efficiency analysis for security measures
- Smart software solutions for infrastructure operators