Interreg

Kofinanziert von der Europäischen Union
Spolufinancováno Evropskou unií

Sachsen – Tschechien | Česko – Sasko

Interreg Saxony – Czech Republic 2021–2027

Interreg Czech Republic – Saxony 2021–2027

AHOJ SOUSEDE.
HALLO NACHBAR.

SUPPORT4SME

Basic information about the project SUPPORT4SME

Partners

Lead partner: Technical University of Liberec

Project partner: Chemnitz University of Technology

Budget

€3,052,522.28
(of which €2,442,017.81 is a subsidy

Supported companies

SMEs in the regions of KK, UK, LK, and Saxony; we will support a total of 131+ companies

Activities

- Services
- Development
- Preparation of project applications
- Workshops, training, professional seminars

Main objective: Development and resolution of joint research topics and provision of applied research services

SUPPORT4SME

creates an interdisciplinary network of experts who will support and implement innovation in small and medium-sized enterprises

Our services

- **Environmental and toxicological analyses**
- **Physical-chemical, mechanical, and technological analyses of materials**
- **Development activities**
- **Transfer of expertise to the industrial sector**

FIB-SEM dual-beam electron microscope with plasma-focused beam

Basic microscope parameters:

- Xe+ plasma FIB
- Micromanipulator
- Main detectors:
  - ✓ Secundary electron detector SE
  - ✓ Back-scattered electron detector BSE
  - ✓ Detector enabling detection of secondary ions emitted during the FIB process
  - ✓ STEM detector
  - ✓ Microanalysis EDS + EBSD

PROCESS OF COOPERATION BETWEEN SMEs AND THE SUPPORT4SME CENTER

SME HAS A TECHNOLOGICAL PROBLEM

PROBLEM DEFINITION, SUPPORT REQUEST

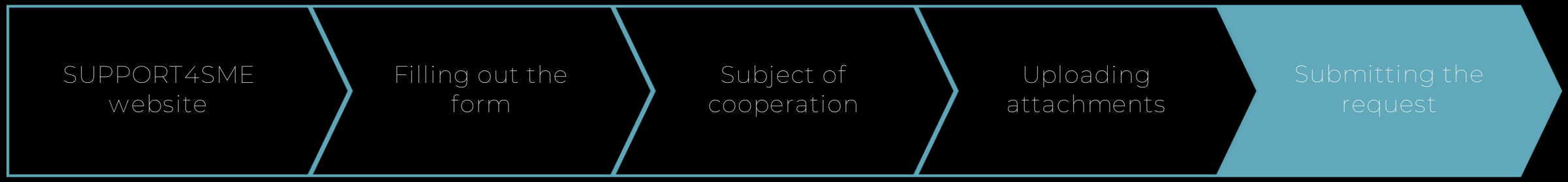
ANALYSIS SERVICE APPLIED RESEARCH

INTERPRETATION OF RESULTS SOLUTION PROPOSAL

PROBLEM SOLVING RESULT DELIVERY

SMEs ARE HAPPY...

The process of applying for support



On the project website (https://support4sme.cxi.tul.cz/), companies can learn about the project and the services offered by the Center and, if interested, submit an application.

Enter the company's contact and administrative details. All items are important and will be copied directly into the contract and other documents later.

Describe in detail what service you are interested in. Describe the objectives of the cooperation, the timetable, and what the outcome should be. Try to be as specific as possible.

The platform allows you to upload an attachment that specifies in more detail what could be the subject of the cooperation or other relevant information.

After submission, the request will be stored in the system and then evaluated by the evaluation committee.

Evaluation criteria

- Does the SME have links to the program area? The SME must have its registered office, place of business, or key activity in the program area (Liberec Region, Ústí Region, Karlovy Vary Region, or the relevant regions of Saxony).
- Is this the SME's first application for support under the Interreg Czech Republic-Saxony – SUPPORT4SME project?

  Each SME can only receive support once.
- Does the company applying for support fall into the SME category? This is a necessary condition.
- Is the SUPPORT4SME center capable of meeting the technological requirements of the request? The content of the support must correspond to the available equipment.
- Is the service feasible within the available time frame? The service must be feasible within a time frame that corresponds to the provider's capacities.

LIBEREC ECONOMIC FORUM 2025

September 03–04, 2025, Liberec

TRANSTECH

GERMAN-CZECH HIGH PERFORMANCE CENTER
FOR TRANSDISCIPLINARY SYSTEMS RESEARCH AND TRANSFER

TransTech Center of Excellence

Connection of important scientific institutes:
Fraunhofer IWU (DE)

- CxI TU Liberec (CZ)
- Fraunhofer IMWS (DE)

Our mission:

- Applied research and development for industry in the DE/CZ/PL border region and beyond

TRANSTECH

TransTech Center of Excellence

History of cooperation:

- Close cooperation between Fraunhofer IWU Zittau and TU Liberec (TUL) since 2015
- Joint projects (Interreg, BMBF/Delta), cross-border exchange of researchers, joint teaching materials/events for students, etc.
- Signing of the memorandum of cooperation by Prime Minister M. Kretschmer, A. Babiš, and R. Neugebaurem in Liberec on August 21, 2020
  and R. Neugebaur, in Liberec on August 21, 2020
- Launch of cooperation between Fraunhofer Institutes IWU and IMWS and TUL through Fraunhofer funding of €1.5 million between 2021 and 2024
- Cooperation between Fraunhofer Institutes and TUL based on the Memorandum of Mutual Cooperation between the Liberec Region and TUL, supported by an individual grant of €0.2 million between 2024 and 2028 from the Liberec Region budget.

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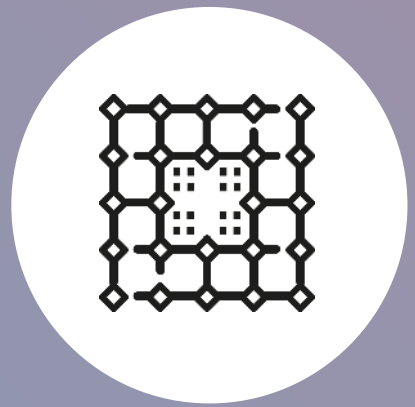
Areas of expertise

Additive manufacturing



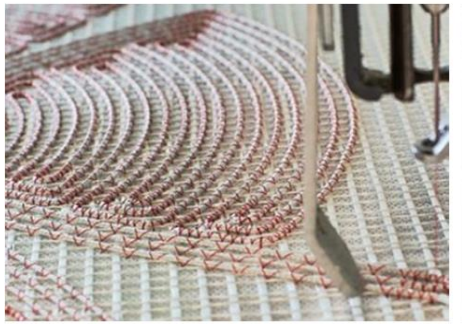
Intelligent Materials

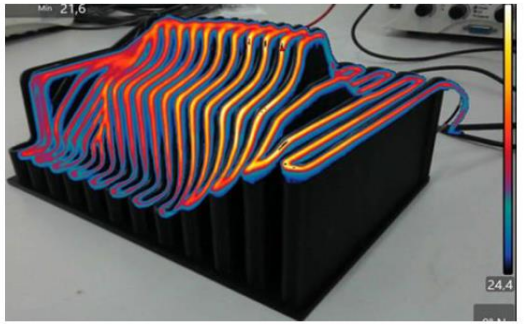
Lightweight construction technologies

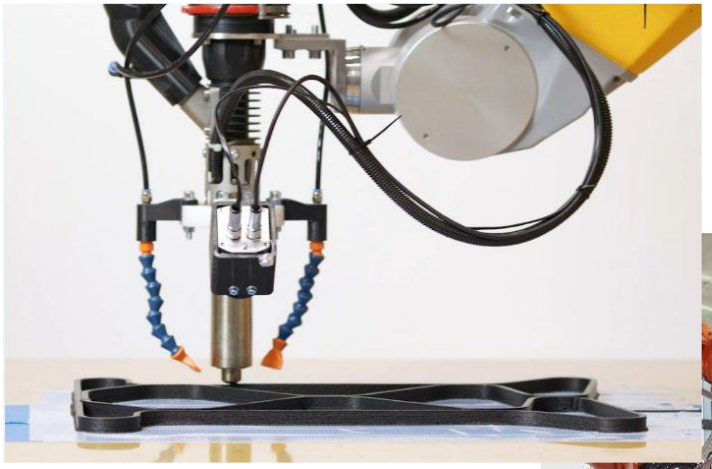
Industry 4.0 & Automation

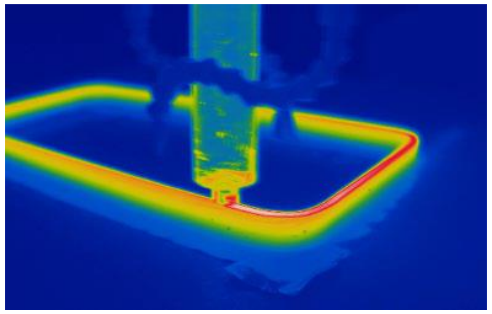
Joint research areas

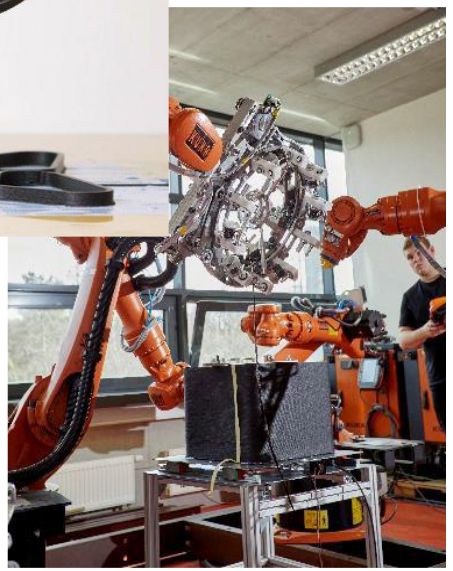
- Integration of sensors and actuators into complex components using 3D printing (smart material integration)
- Adaptive 3D printing with autonomous robots (Adaptive Additive Manufacturing)
- Machine learning and adaptive control of complex manufacturing processes
- Automated, highly flexible assembly processes for the cost-effective production of small series of products with efficient use of resources
- Development of customized lightweight structures through a combination of plastic 3D printing and 3D fiber reinforcement







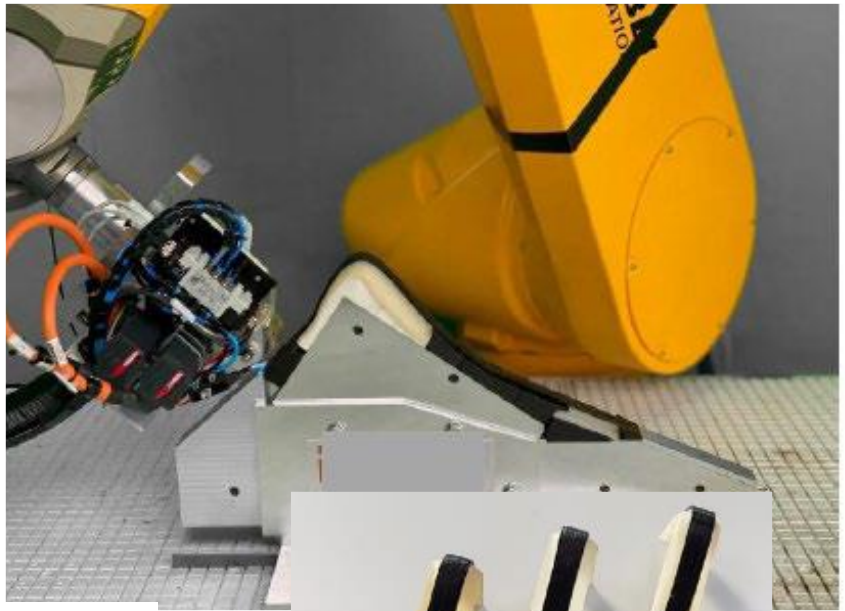


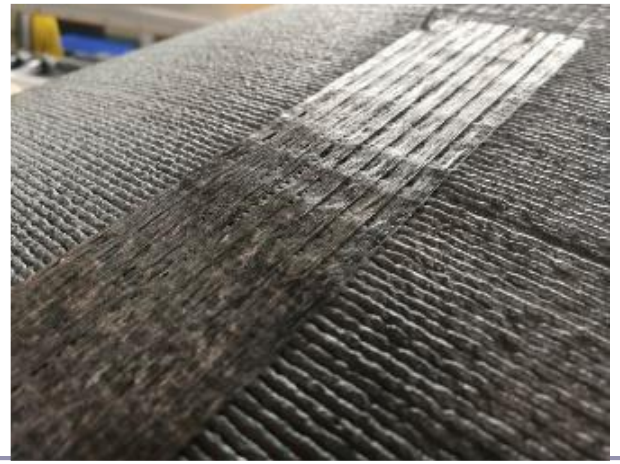


TRANSTECH

Project example: 3D-printed components locally reinforced with fibers (UD tapes)

- Basic research in the field of 3D-printed lightweight structures with partial, local fiber reinforcement (UD tapes)
- Combination of additive manufacturing (AM) based on extruded granulate and automated tape laying (ATL)
- Production of lightweight components with high strength, stiffness, and durability in a short time





Locally reinforced 3D-printed racing seat

3D-printed orthosis reinforced with UD tapes

Thank you for your attention

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