CALL FOR PROPOSALS 2025

1. About the German-French Academy for the Industry of the Future

The German-French Academy for the Industry of the Future (GFA) is an effective accelerator to promote close collaboration between two leading European research institutions, the Technical University of Munich (TUM) in Germany and the Institut Mines-Télécom (IMT) in France, and to strengthen German-French relations. The GFA's mission is to master the challenges accompanying the growing digitalization of industry processes through joint research, education, and innovation. Industry, start-ups and various institutions are valuable partners contributing to our success.

On a research level, the GFA has funded more than 32 TUM/IMT projects that were highly successful on a research level (3 EU projects) and on a French-German collaboration level.

2. Context of the Call for Proposals

For this 6th wave of projects, we invite participants to submit proposals aimed at advancing the French-German Industry of the Future. This Call for Proposals encourages innovative approaches across diverse technological domains, such as AI, hydrogen technologies, next-generation networks (5G/6G), and cybersecurity, to revolutionize industrial processes and foster cross-border collaboration.

Research centers in France and Germany are also welcome to collaborate in submitting joint proposals alongside TUM and IMT.

3. Objectives of the Call for Proposals

This call aims to fund innovative initiatives with a duration of 6 to 9 months, targeting cutting-edge solutions for the Industry of the Future. Two types of projects will be supported under this call:

1. **Hybrid Projects**

   Hybrid projects should integrate two key components:
   - A **research seed project** designed to foster early-stage exploration of promising ideas.
   - A **collaborative event**, such as a workshop, summer school, or hackathon, aligned with the thematic focus of the research seed project.

   These projects aim to address critical technological and structural challenges, leveraging interdisciplinary and international collaboration to develop innovative solutions.
   The **research seed project** format is specifically designed to catalyze high-quality submissions to funding bodies such as the European Union, the ANR/DFG, and other international programs. By supporting early collaboration, this format empowers research tandems to create robust proposals for future funding opportunities, ensuring their long-term impact and success.

2. **Proposals for Educational Events**

This call also invites proposals for a broad range of **educational events**, such as summer and winter schools, hackathons, and workshops. Researchers are encouraged to design new formats or adapt existing ones to foster collaboration, knowledge exchange, and skill-building in areas aligned with the Industry of the Future. These events may involve participants from academia, industry, and other stakeholders, aiming to enhance interdisciplinary learning and strengthen European innovation ecosystems.

Projects must be led by French-German research teams from IMT and TUM, with the potential to involve additional European research centers and industry partners.

Also, the GFA wishes to promote future young researchers collaborations between our two countries. Project proposals that actively involve young researchers will be particularly encouraged.

This dual-track approach ensures a focus on fostering innovative research through hybrid projects while encouraging dynamic educational initiatives that promote cross-disciplinary collaboration and engagement.

4. Reporting and expected outcomes

Reporting requirements:

The GFA expects to be regularly updated on the projects' developments. Therefore, we require the following:
- a project description with photo for the GFA communication (website and LinkedIn)
- 1-2 news during runtime for the website
- a final report (template provided by the GFA project managers)
- joint scientific publications,
- new project proposal,
- proof of concept, prototype or demo (if applicable),
- participation in scientific conferences,
- abstract,
- iconic picture,
- bios of researchers,
- a video (if applicable),
- press articles (already published ones (if applicable) and a press release for us to use).

The seed phase aims to achieve the following outcomes:
1. a White Paper or a position paper, and/or other joint publications,
2. a proposal towards third-party funding (e.g.: Horizon Europe or ANR-DFG call),
3. further scientific workshops or conferences, summer or winter schools, or other dedicated events to share the outcomes and know-how with the community,
4. a proof of concept, prototype, or demo,
5. a design of a new methodology.

5. Topics and Collaboration Areas

With the help of our scientific community, we have identified several relevant topics to be addressed, including but not limited to the following:

1. Smart Manufacturing & Industry 4.0

- Digital twins
- IoT systems
- Predictive maintenance
- Human-robot collaboration
- Cyber-physical systems

2. Sustainable Industry

- Circular economy
- Green manufacturing
- Carbon capture
- Sustainable supply chains
- Eco-design

3. Artificial Intelligence

- AI decision-making
- Big data analytics
- Federated learning
- Computer vision

4. Advanced Materials

- Lightweight materials
- 3D printing
- Nanotechnology
- Material recycling

5. Cybersecurity

- IIoT security
- Cyber resilience
- Data protection
- Blockchain

6. Human-Centric Industry

- AR/VR training
- Ergonomic design
- Workforce upskilling
- Ethical automation

7. Industrial Autonomy

- Autonomous systems
- AI in logistics
- Energy optimization
- Edge computing

8. Resilient Industries

- Adaptive systems
- Risk management
- Disaster recovery
- Resilient supply chains

9. Digitalization and Connectivity

- 5G/6G integration
- Cloud computing
- Smart sensors
- Interoperability

10. Sustainable Energy

- Hydrogen technologies
- Energy storage
- Renewable energy
- Energy-efficient processes

11. Quantum Technologies

- Quantum Computing
- Quantum Networking
- Quantum Communication
- Quantum Cryptography
- Quantum Sensing
- Quantum Simulation
- Quantum Algorithms
- Post-Quantum Security
- Quantum Applications

12. Data Ecosystems & Sharing

- Data Spaces & Trust
- Data Sharing
- Data Interoperability
- Data Governance
- Technological Frameworks
- Standardization

These topics can be addressed with proposals by academic partners and may involve industrial partners.

The projects must include at least one researcher from TUM and one from IMT or an associated institution (e.g., EURECOM). Projects are open to other research centers. If you encounter any difficulties in forming your team, please contact the GFA project managers for assistance.

In order to strengthen the collaboration between the GFA and researchers, participants engaged in selected projects may be invited to provide evaluations for upcoming research CfP initiated by the GFA.

6. Funding

The maximum funding allocated per project is 60.000€ in total to be shared among TUM and IMT. The funding should be distributed approximately equally among all two institutions and is subject to each institution's specific terms and conditions. Each side of the research group has to detail the intended use of the funding (e.g. for PhD, PostDoc, research assistant positions, travel costs, etc.).

The funding has to be used within 6-9 months from the project's start. It is intended to cover expenses such as **travel, workshops, relevant materials and equipment, and human resources.**

Please note:
TUM has specific regulations for the use of funding that must be followed. 20% of the project cost must be provided by own resources. Project funds can only be used for project-specific needs. In addition to the attached document with the most relevant TUM regulations, we recommend adhering to the information provided by the Service Compass of the TUM ("Dienstleistungskompass").

7. Framework of the Proposals

The proposals should be submitted in accordance with the template added in the appendix of this document. Proposals must include:
- a description of the project including objectives and potential third-party funding,
- a detailed project roadmap and time frame,
- information about the human resources involved,
- a financial plan within the maximal funding allocated.

The final proposals must be sent by **February, 21st 2025**, by e-mail to:
- paul-guilhem.meunier@imt.fr
- diane.baumer@tum.de (until 24.01.2025)
- axel.honsdorf@tum.de (after 24.01.2025)

8. Evaluation Criteria

The proposals will be reviewed by external researchers and by one steering committee member.

The following criteria will be taken into consideration for the evaluation:
- Scientific expertise and possible complementarity of the involved teams,
- Systematic approach of the project,
- Fulfillment methods of the project objectives,
- Coherence of the financial plan and the project roadmap,
- Value of the project outcomes:
    - List of relevant EU calls to which the project team would like to apply in the future
    - Planning of joint papers, especially if these are needed for the application to EU calls.
    - Initiation of a project consortium for further project development beyond the project duration
    - Robustness of the relationships between involved researchers and labs
    - Possible support from industry,
- Impact on academia, industry, and society,
- Potential of acquiring third-party funding from public stakeholders and/or industry,
- Financial sustainability of the project and perspectives beyond the seed phase.

9. Time Frame

Deadline for submissions: **Friday, February 21st, 2025, 24:00h**
Notification of the selected projects: 07.03.2025

10.   Requirement

Projects must be presented by at least one person from the French side and one from the German side at the next Here.We.Go Forum, likely to take place in October 2025 in Paris, France.

11.   Contact

Please contact the GFA project managers if you need further information or assistance in identifying researchers from partner institutions or industry experts:

- Paul-Guilhem Meunier: paul-guilhem.meunier@imt.fr
- Diane Baumer: diane.baumer@tum.de (until 24.01.2025)
- Axel Honsdorf: axel.honsdorf@tum.de (after 24.01.2025)