

CALL FOR PROPOSALS 2022

Fostering European Technological & Digital Sovereignty

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

The German-French Academy for the Industry of the Future (GFA) is a bilateral initiative created and officialized during the German-French digital conference on October 27, 2015.

TUM and IMT have been engaged to convert the political wish expressed by both our governments, which is to enhance the competitiveness of our economies, foster the French-German cooperation and address the digital transformation of our industry. In order to pursue these objectives, the GFA acts in three areas: research, education and innovation.

On a research level, the Academy has funded 20 TUM/IMT research tandem projects since 2017 with a strong benefit for the ecosystem.

2. Context of the Call for Proposals

The past two years' economical and geopolitical developments have revealed the weaknesses of European industry in the world: technological dependence and technological lock-in from overseas major digital actors, dependence on raw materials (energy, food, rare earths, etc.), disruption of supply chains. One of today's most urgent challenges for politics and industry is to regain European Technological and Digital Sovereignty.

There have already been numerous initiatives lead by European's countries or at the EU level by the European Commission to protect and regain strategic assets for our technological sovereignty and industry: *Plan de Relance* in France, French-German Gaia-X initiative on data, European Commission Digital Decade policies and European Chip Act to name a few. However, call for actions remain at top-down approaches and public and civil society perception and proactive actions remain insufficient.

Beyond governmental incentives, academic institutions such as IMT and TUM should add value and play a major role in developing long-term solutions closely linked with industry to overcome these challenges by bringing international talents together, educating future engineers, and exploring innovative technologies.

3. Objectives of the Call for Proposals

The call is dedicated to fund seed project phases of 12 months. Carried out jointly by researchers from IMT, TUM and industry, this initial "seed phase" addresses technological and structural issues concerning European technological Sovereignty by outlining innovative solutions with a strong potential for third-party acquisition and technology transfer.

These seed projects will not be followed by a maturation phase financed by the GFA. The goal is to apply and raise third-party funding at the end of the seed project.

Expected outcomes of the seed phase can be:

- a proof of concept,
- a design of a new methodology,
- a fully detailed proposal towards third-party funding (e.g.: Horizon Europe or ANR-DFG call)
- a White Paper or a position paper, and/or other joint publications,
- a scientific workshop or conference, summer or winter schools, or a dedicated event to share the outcomes and know-how to the community.

A final report presenting the results of the project has to be provided to the GFA.

4. Topics and Collaboration Areas

European Technological and Digital Sovereignty raises many challenges on a large scope of technologies and issues for societies: Health, Economic, Digital, Climate, Security. With the help of our scientific community, we have identified several relevant topics to be addressed. Though not limited to the identified and listed topics, the GFA intends to promote interdisciplinary approaches and push forward the following fields in the context of fostering European technological and digital sovereignty:

- Technologies for Digitization of Industry
 - Digital Twin
 - Advanced Manufacturing
 - Applied AI & Data
 - Data sharing and analytics
 - Microelectronics
 - 5G & 6G networks
- Technologies for cybersecurity
 - Blockchain and Distributed Ledger Technologies
 - Quantum technologies, including application to cyber security and networks
 - Cyber Resilience and Safety
- Technologies for sustainable industry
 - Decarbonization of industry
 - Circular Economy and remanufacturing
 - Future Energies
- Studies for Social and Economic sciences

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

The projects must involve at least one TUM researcher and one IMT or associated (e.g., EURECOM) researcher. If you do not have a partner on the topic you would like to address, please get in contact with us and join the dedicated brokerage event organized online by the GFA on Monday, April 25 (09:00 a.m.).

5. Funding

The maximal allocated funding per project is 60.000€ in total for both TUM and IMT parties. The funding is equally split between TUM and IMT and is subject to terms and conditions of use specific to each institution.

The funding is allocated for a period of 12 months. At the present time, maturation phases for the seed projects of wave 4 are not planned, as the GFA aims to foster subsequent third-party funding. The GFA will fund up to 9 to 12 seed projects according to the available budget and quality of the proposals.

This funding mainly aims at covering the following expenses: travel, workshops and events organization, relevant material and equipment, and limited human resources.

Please note:

TUM has specific regulations for the use of funding that must be followed. For example, 20% of the funding amount on the TUM side must be contributed by the applying TUM school itself. In addition, TUM funds cannot be used to pay for caterings or purchases with a lifetime beyond the project (tablets, T-shirts, etc.).

Please consult the attached document with the most relevant TUM regulations as well as the Service Compass of the TUM (“Dienstleistungskompass”) for more detailed information.

6. 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
- 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 Monday, June 20 at noon, by e-mail to: cosima.stocker@tum.de and paul-guilhem.meunier@imt.fr.

7. Evaluation Criteria

The proposals will be reviewed by the steering committee of the German-French Academy.

The following criteria will be taken into consideration for the evaluation:

- Scientific expertise and possible complementarity of the involved teams
- Potential for scientific and innovative breakthroughs of the project
- Systematic approach of the project
- Fulfilment methods of the project objectives
- Coherence of the financial plan and the project roadmap
- Value of the project outcomes
- 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

8. Time Frame

Launch of the call:	Monday, April 4, 2022
Online Brokerage event:	Monday, April 25, 2022, 9:00 a.m.
Deadline for submissions:	Monday, June 20, 2022, 12:00 p.m. at noon
Evaluation Committee:	Friday, July 1 st , 2022
Notification of the selected projects:	Friday, July 8, 2022
Kick-off of the seed phase:	September 2022



The GFA intends to highlight all the submitted proposals to this call and to present them later at the **Here.We.Go – The Future Industry Forum** (Tuesday, September 27th, approx. 16:00-20:00) in order to showcase a comprehensive and cross-cutting approach to fostering European technological and digital sovereignty.

9. Contact

Please contact the project managers of the GFA should you need any further information and help in identifying researchers at the partner institution and experts from the industry.

- Cosima Stocker: cosima.stocker@tum.de
- Paul-Guilhem Meunier: paul-guilhem.meunier@imt.fr