

CALL FOR MATURATION PHASE PROPOSALS 2022

Resilience and Sustainability for the Industry of the Future

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 SARS-CoV-2 pandemic caused an unprecedented crisis that has highlighted the weaknesses and interdependence of global economic markets. It has strongly impacted not only our lifestyles but also our industry. In areas such as healthcare, education, transportation, environment and agriculture, short-term solutions were developed by governments, companies, and civil society to react to this and future emergencies. However, there is a need for long-term solutions, and disruptive innovation to improve our resilience and sovereignty.

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

For this reason, the GFA, as a key instrument of the French-German cooperation in research, education and innovation between academia and industry, launched in march 2020 a Call for Proposals for seed research projects focused on resilience and sustainability in times of crises and digitization. This Call for Proposals supported 9 different projects on various topics such as advancing circular economy, Open Supply chain Management and decision support for ramp-up and ramp-down management in crisis contexts and resilience, on-demand 3D drug delivery system by additive manufacturing, etc. Now, the GFA wishes to go further by supporting the development (maturation phase) of some of the most promising projects that have emerged during the seed phase.

3. Objectives of the Call for maturation phase Proposals

The call is dedicated to fund maturation project phases of 12 up to 18 months. Carried out jointly by researchers from IMT and TUM, this maturation phase addresses technological and structural issues of industry in challenging situations by outlining resilient, sustainable and innovative solutions with a strong potential for third-party acquisition and technology transfer. The maturation phase aims at funding actions according to the roadmap and producing the deliverables envisioned during the seed phase with the industrial partners.

Expected outcomes of the maturation phase can be:

- Publications with a strong scientific impact,
- Technology transfer,
- Patented Intellectual Property,
- Continuation of the research through industry funded projects (joint laboratory, industrial chair, bilateral contract, etc.),
- Successful third-party funding projects.

4. Topics and Collaboration Areas

The topics of the maturation projects have to fit within the framework of the Resilience and Sustainability for the Industry of the Future umbrella. The topics must be related to the themes, issues and scientific challenges identified during the seed phase. However, they can open up new impactful, multi and inter-disciplinary perspectives.

5. Funding

The maximal allocated funding per project is 200.000€ 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 up to 18 months. The GFA will fund the most promising projects within the limit of three.

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 20th, by e-mail to: paul-guilhem.meunier@imt.fr and to cosima.stocker@tum.de .

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 maturation phase

8. Time Frame

Launch of the call:	Monday, April 4, 2022
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 maturation 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 resilience and sustainability of the industry.

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