IDP – French-German Collaboration: 
Simulation Environment for Crisis Handling in Production – Material-Flow-Process

**Context & Goal:**
How to change your production in a sustainable, efficient and quality as well as resilience ensuring way, has never been more relevant than today. In this international collaboration, different chairs of the TUM (AIS, FML, LFE) are working together with the French IMT, to address the limitations of state-of-the-art approaches for the flexible adaptation of production volumes and mixes. The goal of this team project is to address certain material-flow-process challenges in this context. You will work in a German-French team using the available communication channels.

**Work Packages:**
- State-of-Science research on material flow process simulations, sustainability, flexibility and resilience in production, human-factors in flexible production, ramp-up and –down approaches
- Build Material-flow-process Simulation according to the research results (incl. intralogistics, operating cycles /-times (e.g. via MTM), human-machine-interaction, etc.)
- Individually address different questions in the context of crisis with a possible validation on one of the demonstrators (cut-off supply due to border closure / due to supplier incapacity; unexpected changes in volume –increase / decrease; lack of staff; etc.)

**Know-How:**
Fluent in English; knowledge in Python, C#; involved and reliable work attitude; enjoy teamwork;

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