
**Project idea/ Field of expertise:**

Hybrid fiber and metal structure reinforced thermoplastic material

**Organisation Name:**

Leibniz-Institut fuer Verbundwerkstoffe (Coordinator)

**Addressed topic(s):**

HORIZON-CL4-2023-TWIN-TRANSITION-01-02:

*„High-precision OR complex product manufacturing – Potentially including the use of photonics”*

# Leibniz-IVW
## Institute for composite materials

Leibniz-Institut für Verbundwerkstoffe

Leibniz Gemeinschaft

**EXPERTISE**

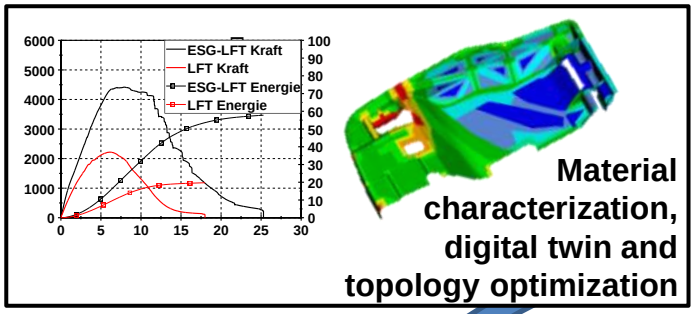
- Research of **future applications** of **polymer composite** materials
- Tailoring new materials, construction methods and **manufacturing processes** for the respective requirements
- **Characterization and** simulation of materials and processes
- Life cycle: from construction methods and production technology to component testing and recycling
- Tailored **thermosets** and **biomaterials**
- Technology center thermoplastic composites (TTC)

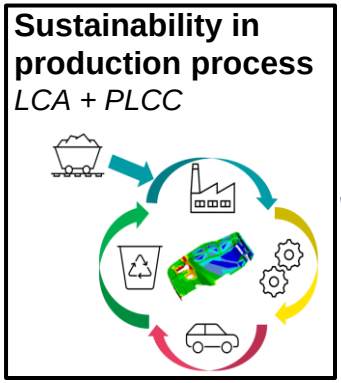
**EXPERIENCE**

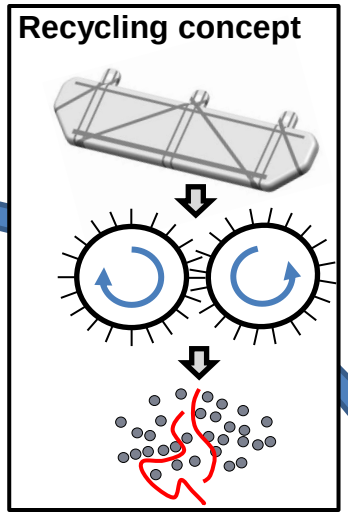
- Participation as partner in more than 50 projects since FP4
- Project coordination of one FP7 & one H2020 project

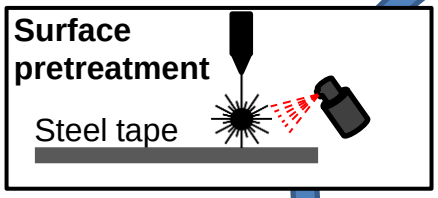
# HYBRID STEEL TAPE + THERMOPLASTIC COMPOSITE:

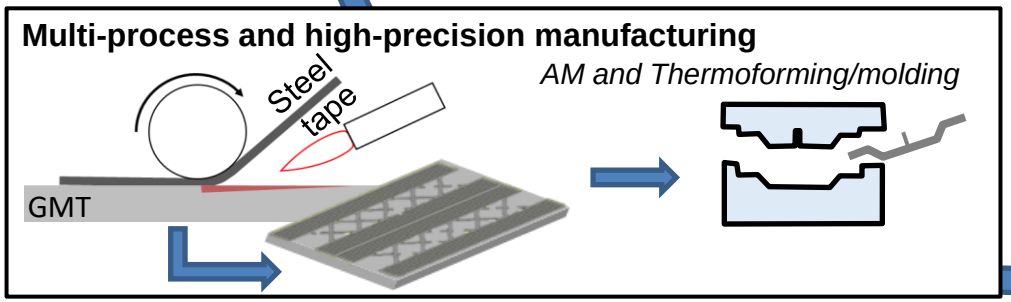
→ high mechanical performance → cost-sensitive → crash robust → flexible reinforcement along loadpath → improved load introduction → very short cycle times → recycable & sustainable

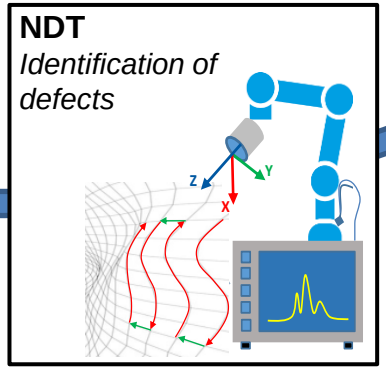


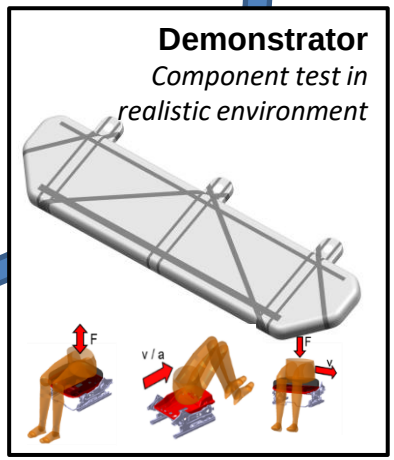



**Searching for consortium partners from industry (IA, 60% funding):**

→ Surface pre-treatment of steel (i.e. primer, coating, laser, …)

→ Automation of manufacturing process

→ NDT technology provider

→ Potential end users with use case example

# Contact details

| **Contact person** | **Ilona Ryl** |
|---|---|
| Organisation | Leibniz-Institut fuer Verbundwerkstoffe GmbH |
| Address | Erwin-Schroedinger-Strasse 58, 67663 Kaiserslautern, Germany, https://www.ivw.uni-kl.de/en/home |
| Phone | +49 631 2017-499 |
| E-mail | ilona.ryl@ivw.uni-kl.de |
| B2Match profile | https://kets2022.b2match.io/participations/176930 |
| LinkedIn/Twitter | n/a |