



M. Gude, J. Markmiller, S. Spitzer, C. Fischer, M. Reif,

# Research aircraft as a real-world laboratory – Towards the development of climate-friendly aircraft propulsion systems – In Lusatia

# Research into climate-friendly propulsion systems

**Our vision: A flying real-world laboratory for research into sustainable aviation. With a research aircraft that brings innovations to life, attracts industry and shapes the energy transition on the ground. In Lusatia.**



**Prof. Dr.-Ing. habil. Maik Gude**

Institute of Lightweight Construction and  
Plastics Technology  
Chair of Lightweight Structures and Hybrid  
Construction

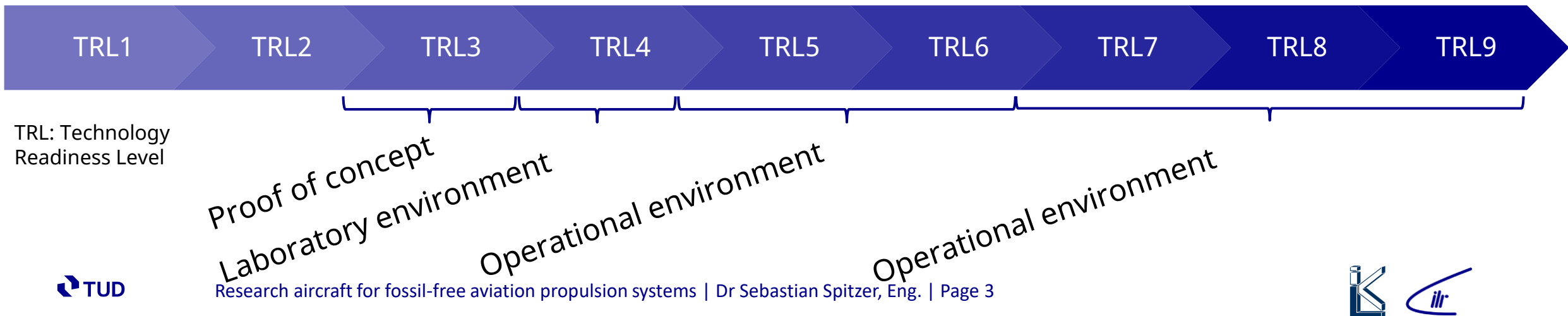
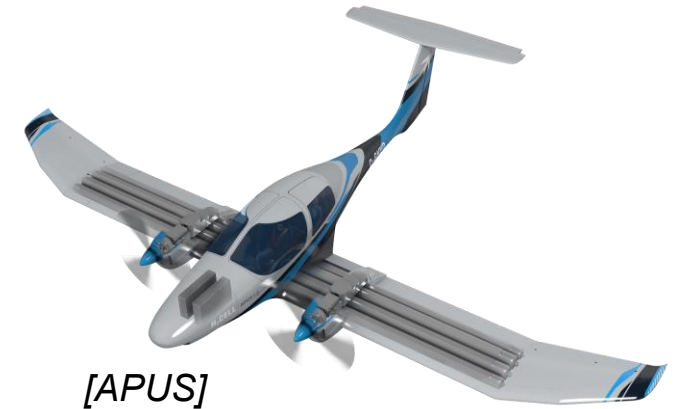
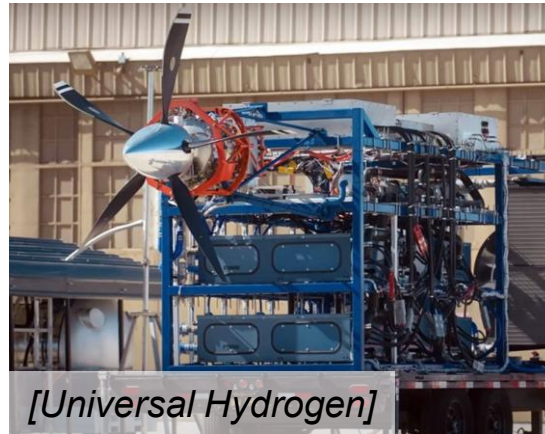


**Prof. Dr. Johannes Markmiller**

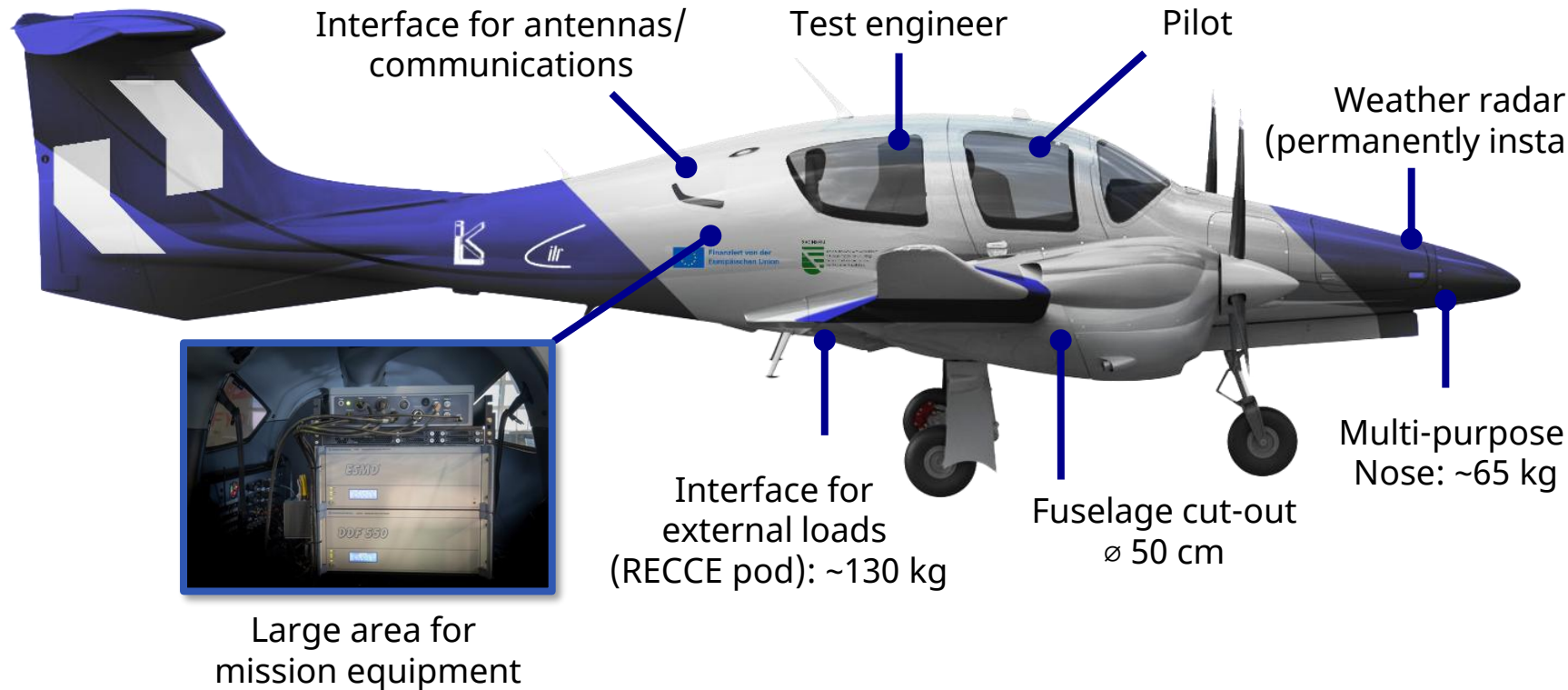
Institute of Aerospace Engineering  
Chair of Aircraft Engineering

# From vision to climate-friendly aviation

## Hybrid-electric propulsion systems as a key technology for fossil-free aviation



# From the idea to a flying real-world laboratory



## Diamond DA62 MPP:

- >1.5 t payload
- 2 hours' flight time
- Modular installation of H<sub>2</sub> systems
- Parallel integration of combustion, fuel cell and electric propulsion systems
- Platform for data, energy and system integration
- Research services for topography, ground and terrain reconnaissance

Investment via SAB / JTF InfraProNet

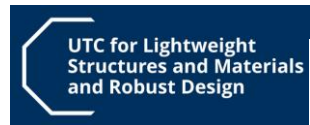
# A driving force for structural change and sustainable mobility



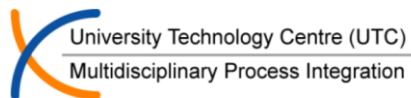
Dresden University  
of Technology  
Smart Mobility Lab

Flugplatz Kamenz EDCM

Home base of the research aircraft



PROFESSUR FÜR HOCHSPANNUNGS-  
UND HOCHSTROMTECHNIK



Wissenschafts- und  
Wirtschaftsplattform



# Take a flight into the future of aviation

## Opportunities for collaboration:

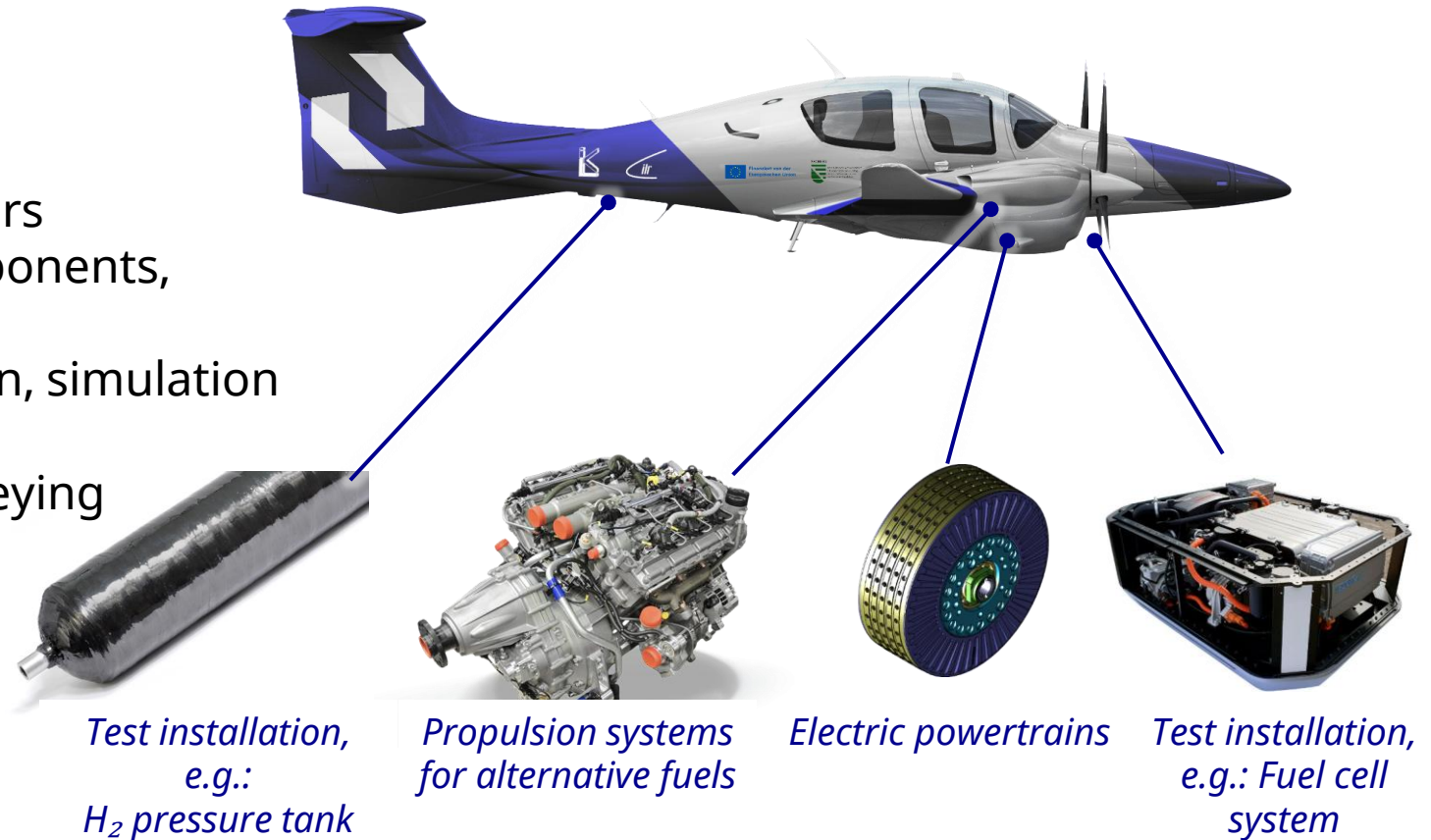
- Technology testing, certification, data exchange, spin-offs
- Joint European research projects

## Partners sought:

- Energy and hydrogen system providers
- Manufacturers and suppliers of components, sensor technology and fuel cells
- Institutions specialising in certification, simulation and training
- For topography, soil and terrain surveying

## Contact:

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**With Innovation in the Air.  
Let's take off into the future  
together.  
Thank you very much for your  
attention!**



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