



Scientific Society for Product Development

Perspectives for the Products of Tomorrow

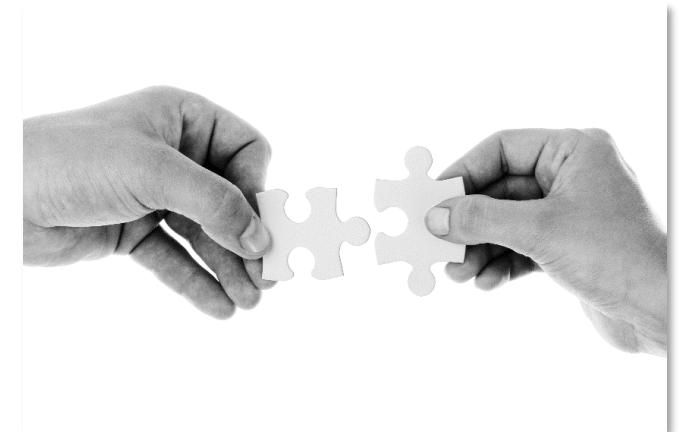
To promote research and teaching in the field of integrated product development and to encourage dialogue between science, industry and society.

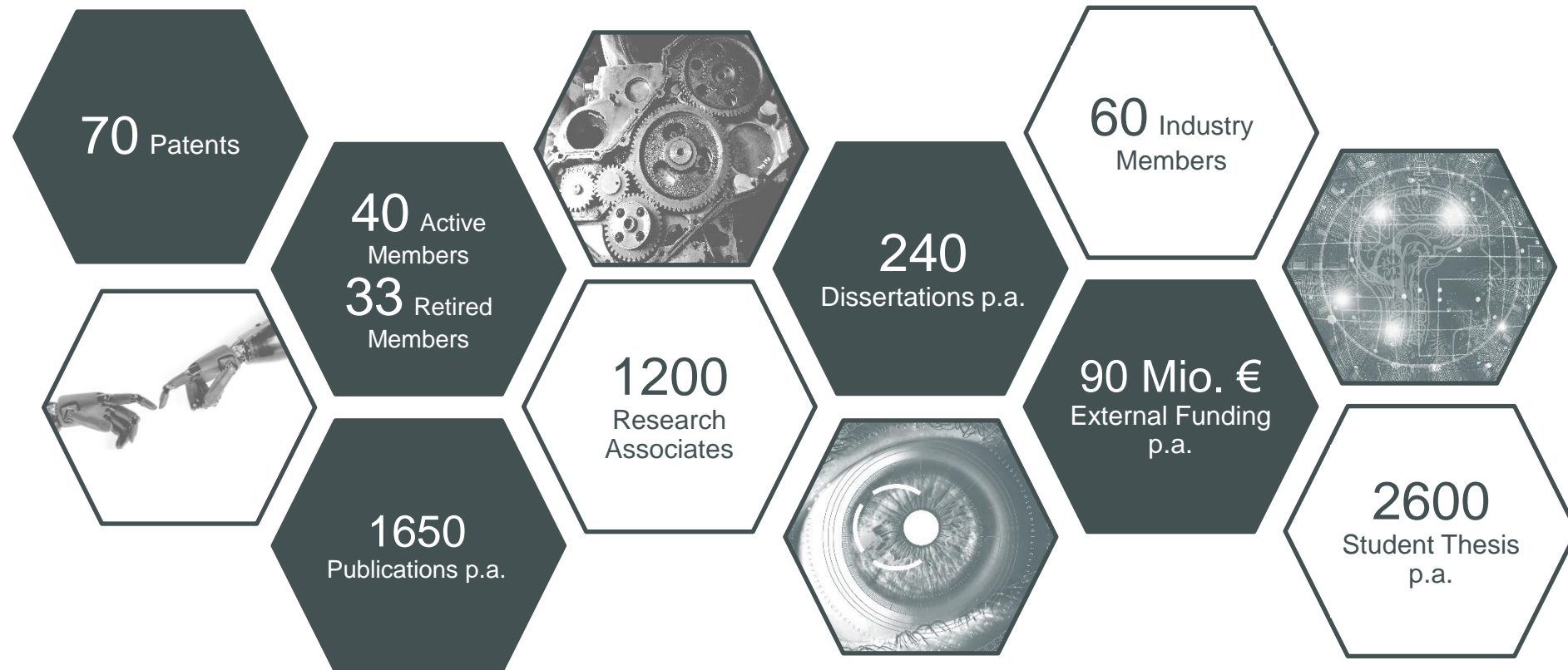
Activities

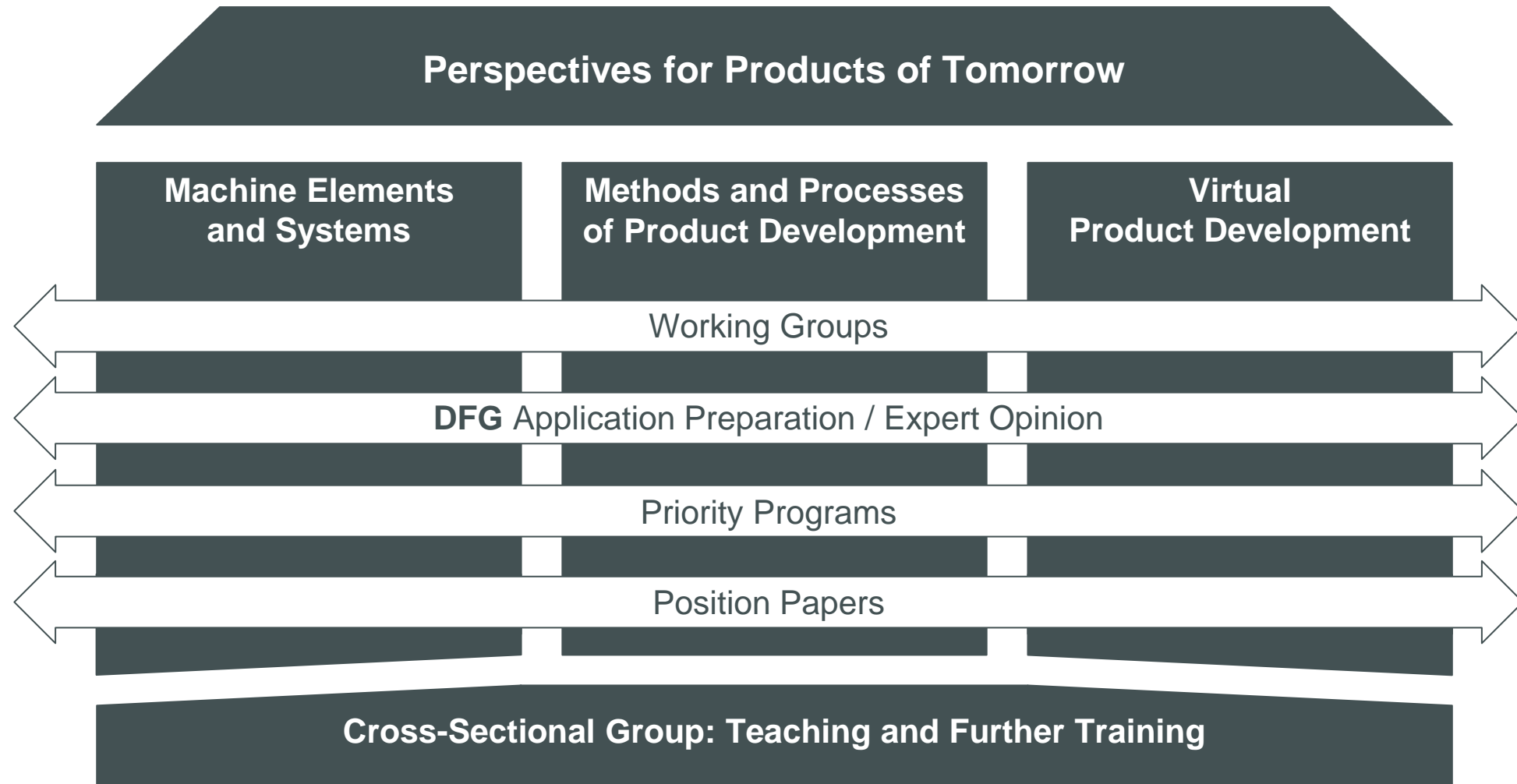
- Representation of the interests of technology and product innovation as well as product development in the public sector
- Coordination with other scientific societies, such as the WGP
- Development of white papers and position papers
- Supporting the education of the next generation of engineers at universities

Realization

- Development and coordination of research networks
- Exchange of teaching knowledge within Cross-Sectional Group *Teaching and Further Training*
- Annual meetings with industry leaders









Competence Machine Elements and Systems

- Tribology
- Reliability / Lifetime
- Vibrations / Rotor Dynamics
- Drive Systems / Mechatronic Systems
- Medical Technology
- Handheld Devices
- Gears
- Rolling Bearings / Plain Bearings
- Clutches / Brakes / Freewheels
- Seals
- Springs
- Testing Technology

Competence Methods and Processes of Product Development

- Strategic Product Planning and Innovation Management
- Knowledge Management
- Complexity Management
- Development and Design Methodology
- Agile Product Development
- Safeguarding / Validation of Products and Systems
- Design for X (Additive Manufacturing, Lightweight Design ...)
- Modeling Methods
- Requirements Management
- Development-Process-Models and Organization

Competence Virtual Product Development

- Systems Engineering / MBSE
- CAD / CAE / DMU / Reverse Engineering
- Digital Twin / Product Data Management
- Knowledge-based Engineering
- Machine Learning / AI / Big Data
- Virtual Reality / Augmented Reality
- Smart Products / Cyber Physical Systems / Internet of Things / Digital Factory
- Data and Information Management
- Modeling and Simulation
- Dimensional Management / Robust Design
- Digital Human Models



Coordinator of *Machine Elements
and Systems*
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Managing Director
Univ.-Prof. Dr.-Ing. Roland Lachmayer,
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**Chairman and Coordinator of *Methods and
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Coordinator of *Virtual
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Advanced Training*
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- Prof. Dr.-Ing. Michael Abramovici
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- Prof. Dipl.-Ing. Dr.-Ing. Detlef Gerhard
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- Prof. Dr.-Ing. Dietmar Göhlich
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- Prof. Dipl.-Ing. Dr.techn. Hannes Hick
- Prof. Dr.-Ing. Georg Jacobs
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- Prof. Dr.-Ing. Roland Lachmayer
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- Prof. Dr.-Ing. Frank Mantwill
- Prof. Dr.-Ing. Sven Matthiesen
- Prof. Dr.-Ing. Mirko Meboldt
- Prof. Dr. Athanassios Mihailidis
- Prof. Dr. Dr.-Ing. Dr. h.c. Jivka Ovtcharova
- Prof. Dr.-Ing. Kristin Paetzold
- Prof. Dr.-Ing. Gerhard Poll
- Prof. Dr.-Ing. Oliver Riedel
- Prof. Dr.-Ing. Christian Schindler
- Prof. Dr.-Ing. Berthold Schlecht
- Prof. Dr.-Ing. Hubert Schwarze
- Prof. Dr.-Ing. Karsten Stahl
- Prof. Dr.-Ing. Rainer Stark
- Prof. Dr.-Ing. Peter Tenberge
- Prof. Dr.-Ing. Roman Teutsch
- Prof. Dr.-Ing. Klaus-Dieter Thoben
- Prof. Dr.-Ing. Thomas Vietor
- Prof. Dr.-Ing. Jörg Wallaschek
- Prof. Dr.-Ing. Sandro Wartzack
- Prof. Dipl.-Ing. Dr.-Ing. Michael Weigand
- Prof. Dipl.-Ing. Dr. Klaus Zeman
- Prof. Dr. Markus Zimmermann



Position Papers

- Professorial Appointment Practice (in cooperation with WGP)
- Evaluation of Research and Innovation Performance (in cooperation with WGP)
- Update Factory (in cooperation with WGP)
- Digital Twin
- Smart Engineering
- Machine Elements - Shaping the Future through Evolution

Handouts

- Patents as Publication
- Habilitation-Equivalent Achievements

Guides

- University Teaching in Product Development

The listed publications can be
found on our homepage
www.wigep.de

How to reach **US**



WiGeP

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für Produktentwicklung

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