«Machine tool is cool! Manufacturing is the basis of our wealth and only a scientific approach combined with profound engineering makes it possible to leverage the potential for value creation.»

Professor Konrad Wegener
Industry-oriented production science and engineering
Institute of Machine Tools and Manufacturing

Our institute is dedicated to the scientific basis and engineering for industrial value creation. We optimize current technologies and create new processes and process chains in order to overcome societal and industrial challenges. The goal is to enable improved products and create more with less resources. Cooperations with Swiss and international industries secure the application of our research in the real world. Our teaching aims at empowering young engineers to transform an interdisciplinary scientific background into real industrial applications and to perpetuate innovation in industry.

Focus

- Production machine technologies and industrial automation
- Sustainability and electromobility
- Manufacturing processes:
  - Cutting with defined and undefined cutting edge
  - Laser ablation
  - Additive manufacturing
  - Electro discharge machining (EDM)
  - Micro manufacturing
- Artificial intelligence in manufacturing

Further details online:
www.iwf.mavt.ethz.ch