



## The ZPP – the Innovative Engineering Centre at ZHAW



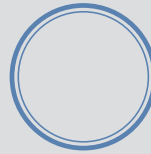
Vision



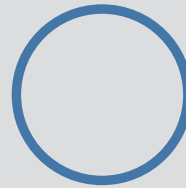
Innovation



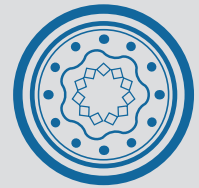
Development



Prototypes



Realisation



Product

Innovation Playground  
and Development

3D Experience

Advanced Production  
Technologies

Our team specialises in innovative product and process development in the field of mechanical engineering – from the vision to the product. Our research focuses on novel methods, tools and procedures for an optimised and efficient product development procedure. The ZPP research team is also engaged in teaching and continued education at the ZHAW School of Engineering. For your research plans you can benefit from our skills and our modern infrastructure in the three areas of Innovation Playground and Development, 3D Experience and Advanced Production Technologies.

## Innovation Playground & Development



We do research into new technical solutions for the social challenges presented in the fields of energy, mobility and health. We support you in the creation and implementation of your vision, your business and product idea, by contributing creative ideas, our wide range of experience, and our methods of innovation. Our staff are able to combine the most varied skills in different subjects and fields, and use them to clarify the economic and technical feasibility of your vision. We use the latest methods and tools to develop functional models and test assemblies and to develop and construct the marketable product.

We communicate our expertise in methods for the process of innovation by higher education courses and individual counselling and seminars.

## 3D Experience



We use the latest 3D tools and CAx systems to speed up your process of innovation and improve the quality of your products and processes. In our 3D lab we can image the real world in the form of virtual 3D prototypes, in order to produce ergonomics and haptics studies, motion analyses, simulations and high-quality visualisations before the production of the actual prototype.

To this end, by using customer-specific specialist software we optimise the procedures in the CAx applications – from the first sketch to the complex NC manufacturing program.



## Advanced Production Technologies



Advanced Production Technology at the ZPP is the use of new, economical manufacturing procedures. This includes in particular the additive manufacturing methods (3D printing) and the metal-cutting 5-axis processing. The optimum combination of these two methods (hybrid manufacturing) allows the successful implementation of an innovative product development. We research into new additive methods, especially selective laser melting (SLM), develop the machines required for this, and determine the ideal process parameters. For these manufacturing methods we evaluate suitable types of application, and develop high-quality components and products made of metal or synthetic materials.

We use our modern laboratory infrastructure and workshop equipment for the manufacture of test assemblies, prototypes and short production runs for student projects and research and development projects.

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The School of Engineering at the Zurich University of Applied Sciences is one of Switzerland's leading technical universities. It provides top-quality education and training while providing the industry and business with innovative solutions in the fields of energy, mobility and health.

We will be delighted to help you develop and refine your products, and you can rely on us to be a skilled partner for your business activities. Please don't hesitate to contact us.