



A-CONCEPTS®



... WE BRING YOUR PROJECT ON THE ROAD!



A-CONCEPTS®

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... WE ADVISE, DESIGN AND REALIZE!



COMPANY

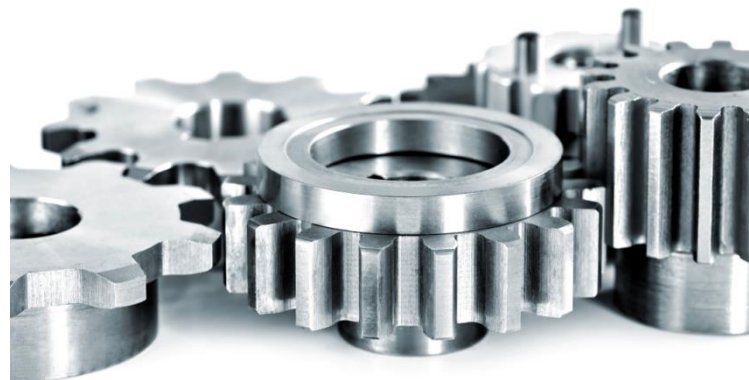
A-Concepts (Automotive Concepts) stands for conceptual ideas, implementing projects in the entire vehicle and component development.

We advice, design and realize!

From design concept to mass production, we support both start up's and established companies. Therefore, we have a well-structured network in the field of vehicle development, which is grown in more than 19 years industry experience.

No matter where your project stands: Our concept fits. A rich pool of ideas, managerial skills and our passion for strong automotive innovations are as a reliable engine. Let us realize your visions accurately!

A-Concepts - we bring your project on the road!





//// WHAT WE STAND FOR



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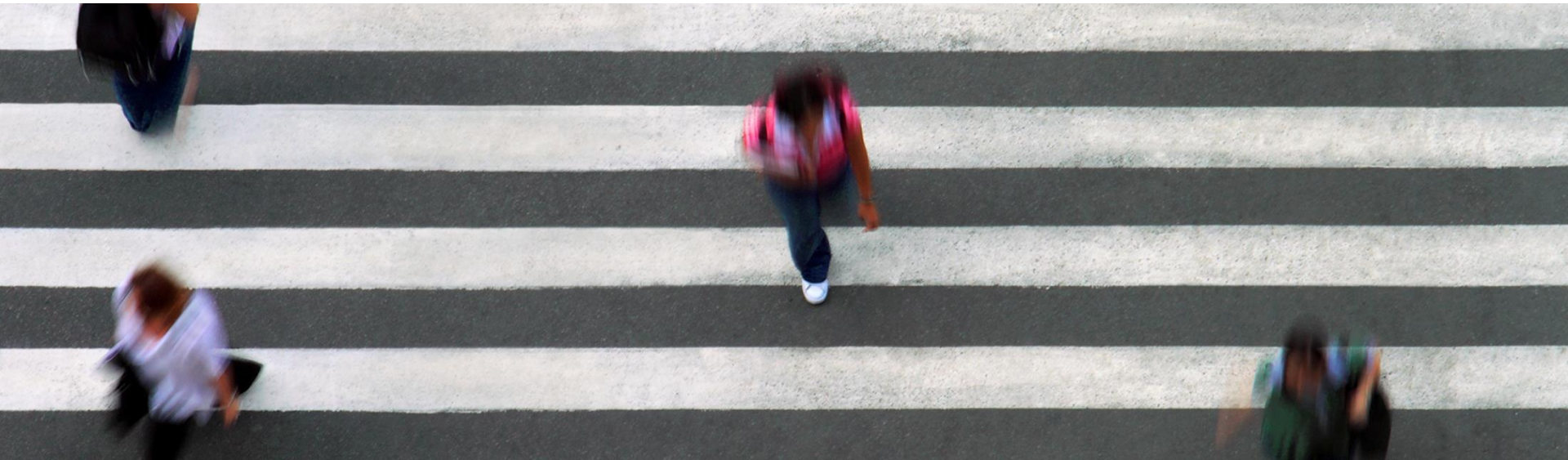
WHAT WE STAND FOR

We want to shape the future!

Our concepts honoring existing traditions and put innovative trends on the other hand - inspiring new yet familiar. We create continuities, which grow and strengthen the customer loyalty. So fresh automotive solutions arise for the market of tomorrow.

Our daily work is based on two main pillars: our expertise and that of our partners as well as the ambition to connect quality with determination. Because each sub-project is an important cog to success. Therefore, maximum power is self-evident. That is the only way to produce truly sustainable good products.





WHY WITH A-CONCEPTS ... ?



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WHY WHITH A-CONCEPTS ... ?

Vehicle development is a process of interlocking gears. It is a composition, a symphony of expertise. For *A-Concepts*, every sound, every element of the tune is inherent - from initial project planning, conception, design through production up to type approval and quality management.

Do you want a concept of a piece considering legitimate and regulatory questions? Then you rely on *A-Concepts*. We build up necessary structures and manage them in accordance with the specifications of your business.

A-Concepts represents a broad base of knowledge and detailed technical information. Contrary to other vehicle developers, for you there is only one contact at *A-Concepts*. This one has a complete overview to communicate knowledge timely, bundled and understandable. That is the only way to aid quick decision processes.



Also focused on affordability, we deploy our knowledge effectively. Because with small series, it is important to avoid high investment costs. *A-Concepts* not only provides the current project, but also how it fits into your company's future and other projects.



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COMPETENCIES AND SERVICES





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COMPENTENCIES AND SERVICES

Consulting

We support your projects with our Know-How.

Management

We plan, structuring, organize and lead with professional and social skills.

Engineering

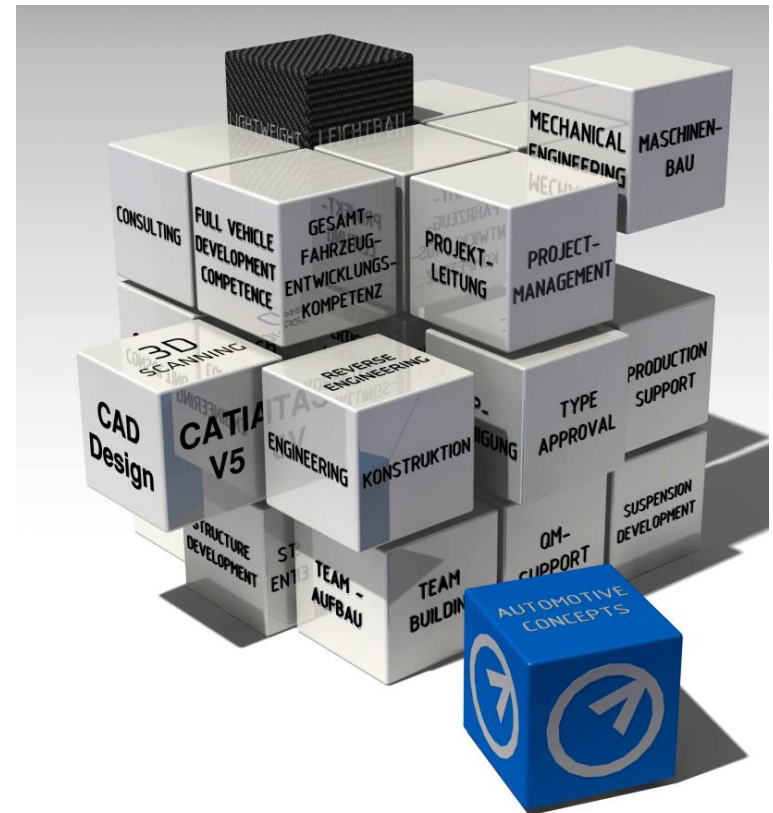
We support in development / design of your products up to the build up of first prototypes.

3D Scanning/ Reverse Engineering

We digitize existing things to work on it.

Prototype Construction

We support your project until it can be grasped with all senses.





CONSULTING



Support and preparation of complete vehicle development projects

- > Strategic planning of vehicle projects
- > Development of product definition/ specifications
- > Building up of project structure and development of partner network
- > Support and controlling of entire vehicle development process (from idea to series)

Support for development of the QM system

- > Process definition and structuring for initial manufacturer assessment and verification for type approval process and product liability protection



Special Approval §70 (Germany)

- > Handling of the entire process starting from application process through to registration

Type approval Europe/ Swiss

- > Preparation manufacturer assessment and verification
- > Preparation of type approval requirements and documents
- > Preparation of test circumferences
- > Contact building and management of technical services and approval authority
- > Build up of COP - Process (type approval relevant) (COP = Conformity of production)

US Certification (USA)

- > Preparation of the certification requirements (FMVSS, SAE)
- > Support for product liability protection
- > Contact building and management of US Certification Agent
- > Build up of COP - Process (COP = Conformity Of Production)



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MANAGEMENT

Department / Division / Team management

- > Build up of development department / division
- > Lean (innovation) management
- > Team building
- > Leadership of employees with professional and social competence
- > Qualification planning

Project management

- > Project planning and controlling of overall vehicle and components development projects
- > Build up of product liability protection in development process (e.g. FMEA)
- > Supplier selection and controlling





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ENGINEERING

Vehicle development/ engineering design

- > Overall vehicle conception/ -package (nitro and electric vehicles)
- > Vehicle/ chassis structure (crash/ stiffness/ weight)
- > Suspension (kinematic concepts/ component selection/ component design/ springs and damping)
- > Brake system (basic design [calculation]/ component selection)
- > Exterior/ interior (bodywork and trim parts, functional elements)
- > aggregates integration and peripherals
- > Systems integration
- > vehicle air conditioning, engine cooling system
- > etc.

FEM/ CFD Analysis and Simulation

- > Stiffness, Deviations, Stresses
- > Aerodynamics (Drag, Lift etc.)

Tooling design

- > Production fixtures and testing equipment
- > Mold design





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/// 3D SCANNING / REVERSE ENGINEERING

3D Scanning/ Digitization

- > 3D digitizing of geometries of all kinds
- > Mobile, flexible and fast scanning in both in-house or at the customer site
- > Preparation of the scan data for further processing steps

3D Measuring/ Inspection

- > Fast component analysis using false color display
- > Creation of inspection reports

Reverse Engineering

- > Repatriation of the scan data into editable CAD - data models (surfaces / volumes)
- > Manual Reverse Engineering for Design / Surfacing
- > Export of the data for further processing in different CAD - systems





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PROTOTYPE CONSTRUCTION

Together with our strong team of partners we realize your project prototypes from individual parts to complete vehicles.

Services

- > Parts and components sourcing
- > Manufacturing and construction planning
- > Coordination, supervision and support of the production or assembly (supplier/ customer)
- > Inhouse prototype buildup
- > Vehicle measuring

Weights: - total vehicle weight (max. 2,6 t)
 - axle-/ wheel weights
 - axle weight ratio

Vehicle center of gravity : (x, y ,z)

Chassis geometry

Scope (examples)

- > Full vehicles
- > Bodyshell work / structure
- > Suspension Components and systems
- > Brake components and systems
- > Aggregates peripherals
- > Body shell exterior and Interior components
- > Manufacturing and assembly tools





//// REFERENCE PROJECTS



OUR WAYMARKS



References are rear-view mirrors and witnesses of our work alike. In them, our productive and creative work becomes visible. For us and our work, it is also very important to comply valid confidentiality agreements. Consequently we can not publish recent projects.

This point makes it naturally difficult for you, assess our current options and detailed work processes. Therefore, please let us give you an insight into the advanced performance of A-Concepts. How about a personal conversation? We look forward to you.

A-Concepts... and also your innovations are able to pave ways.



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REFERENCE PROJECTS

ARTEGA Automobil GmbH & Co. KG/
F&W AG

- >2011 - 2012 Head of development
- >2007 - 2011 Head of engineering
- >2006 - 2007 Project management/
Engineering
(Employee)



Project: FRAUNHOFER IFAM - FRECCO
(E - MOBILITY)

- >2010 - 2012 Overall project management
development services
(Employee/ Artega Automobil
GmbH & Co. KG)





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REFERENCE PROJECTS

Project: YES! ROADSTER (B)

>2006 Project management and
engineering design
(Employee)



Project: YES! ROADSTER (A)

> 2002 - 2004 Engineering design
(Employee)





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REFERENCE PROJECTS

Project: PAUL & PAULA MOBIL (PROTOTYP)

>2006 Engineering design
(Employee/ Funke&Will AG)



© GFB/ F&W AG

Project: LARAKI FULGURA V8/ V12

>2002 - 2004 Engineering design
(Employee/ Funke&Will AG)



© Larakı



//// CLOSING WORDS



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//// CLOSING WORDS

„Although this presentation is a reflection of our experience, it is naturally just an excerpt. Do you want a more detailed look at ourselves and the way we work? Find the right partner to implement your idea? Then go in medias res and contact us. Maybe we'll set a new course for a joint project.“



 DIGITAL DOCUMENTS/ DOWNLOAD LINKS



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Download link corporate presentation

http://www.a-concepts.de/site/downloads/A-Concepts_corporate_presentation_EN.pdf



Download link digital business card (vcard)

https://www.a-concepts.de/site/downloads/vcard_A-Concepts.vcf



THANK YOU VERY MUCH!



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