

# RUAG



RUAG Technology – Aerostructures Emmen  
Tailored solutions for tomorrow's needs

# Centres of Competencies

By offering a vast array of aerospace competencies, we are able to handle small to large scale projects of varying complexity, from concept to series production. Centres of competencies cover a broad range of disciplines that are initiated by individual project demands and staffed by our experienced personnel with a proven track record on demanding projects past and present.



## Project, Quality and Supply Chain Management

- End-to-end responsibility and competent interface management
- Complete development and supply process management
- Multi-cultural approach to serve customers globally
- Experienced project management implementation per project
- Transparent relationship between supplier and customer
- Fast and reliable reaction to changing demands from customers



## Engineering

- Concept & Trade studies of metallic, composite and hybrid aerostructures
- Detailed design and analysis of complex aerostructures as well as jigs & tools
- Work package based projects as well as on-site support
- Fully integrated into manufacturing, assembly, procurement and quality processes
- Innovative and adaptive approach to meet customer requirements
- Management of external design and analysis resources



## Composites

- Monolithic and sandwich components up to 8 m length and 4 m width
- Co-bonding and co-curing of composite and hybrid structures
- Resin transfer moulding and autoclave processing
- Metallic bonding
- Honeycomb and composite part machining
- Stringent quality control with state-of-the-art NDT & DT facilities



## Sheet Metal

- Heat treatment
- Surface treatment
- Fluid-cell and hydraulic forming
- Stretch forming
- Chemical milling
- Complex welding



## Machining

- Integrated CAD to CAM interface
- Large scale machining of up to 10 m length
- Distinguished competency in the machining of complex aluminium parts
- Automated high-speed machining capabilities
- Integrated CMM system
- Machining of alloys with up to six axis machine tools

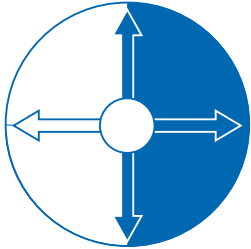


## Assembly

- Large scale assemblies in metallic, composite and hybrid design
- Assembly of complete aircraft sections
- Installation of electrical and other systems
- Automatic riveting facilities
- Timely deliveries through process monitoring
- Continuous improvement to minimize assembly time and costs

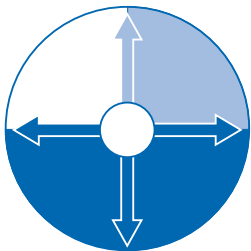
# Tailored Solutions

Tailored solutions combine various services to meet our customers requirements. From specification all the way to production relocation packages, we ensure flexibility is maintained. We offer modular services to ensure profitable and sustainable growth of our customer's organization. Examples of such tailored solutions are shown below.



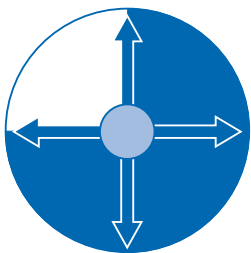
## Pre-Series to Specification

Development of concepts & detailed designs incl. material qualification, prototyping, jig and tool design, FAI and ramp-up to serial production rate. After this, the production is handed over to another supplier selected by our customer.



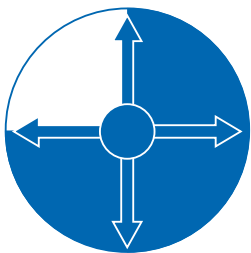
## Build to Print

Based on a technical data package we design the jigs and tools, qualify processes and prototypes, accomplish FAI and ramp up to serial production which then continues with high reliability and continuous improvement.



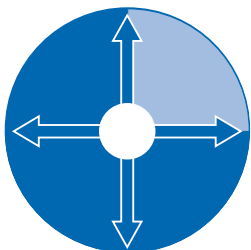
## Build to Specification

We offer the full support from concept studies to serial production and MRB support for the lifetime of the product. This solution will typically benefit from our internally developed product and process innovations.



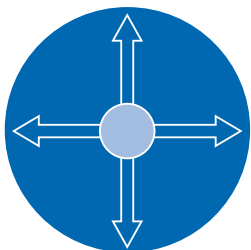
## Build to Innovation

Builds upon our in-house developed product and process innovations. This solution will ensure economic, performance and operational enhancements of customer-supplied products and/or designs.



## Outsource to Print

We design jigs and tools, define build philosophy, qualify processes as well as FAI. We ramp-up to serial production rate and outsource to the customers' desired destination worldwide with continuous support until same rate and quality is achieved abroad. RUAG manages the outsourcing process.

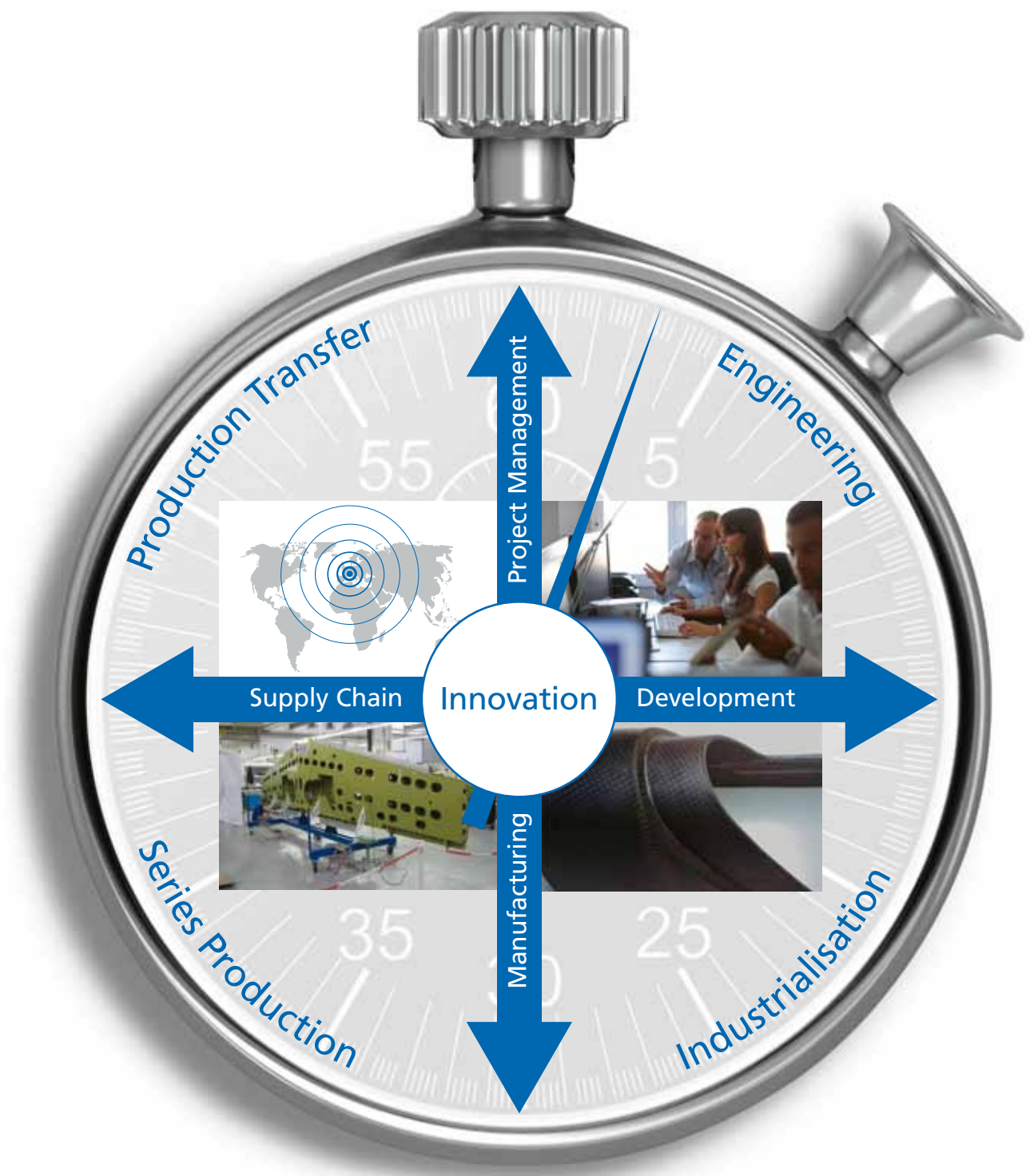


## Outsource to Specification

Unique and comprehensive solution from early concept studies to production support in low-cost countries of the customers' choice. RUAG manages the outsourcing process. This solution fully accommodates RUAG's strengths.

## Services

Our Competencies can be categorized into five key service packages namely Engineering, Industrialisation, Series Production, Production Transfer and Innovation. This results in an extensive services and solutions portfolio enabling us to cater for any customer locally and globally.



## Mission Statement



**“I am proud to offer my customers the most comprehensive service portfolio in the aerospace industry.”**

We at RUAG Technology are committed to innovation and technological growth by developing and manufacturing components of the highest quality and reliability whilst maintaining our strict focus on customer satisfaction.

We work closely with our customers, partners and suppliers to cope with the demanding technical challenges of today's aerospace programs. We cover the entire development & supply chain process - conceptual design, development, testing & qualification, tooling, FAI and serial production and excel in development/manufacturing integration to achieve optimum product quality within an efficient, lean process.

We fully understand the changing demands of global markets and as such focus on 5 key service packages which address current and future climates - Engineering, Industrialisation, Series Production, Production Transfer and Innovation. Allied to this, we utilise our own established in-site competence base and large portfolio of manufacturing processes and capabilities which produce components and assemblies of the highest quality.

We have a highly integrated, reactive and dedicated team which facilitates fast tool, fixture and flow-line design and implementation along with speedy development times in-line with customer program requirements.

A leader in composite and metallic technologies, our business is equally focused on military and civil markets. We are a 100% government owned organisation and as such form part of the RUAG Holding Group.

These are exciting and dynamic times for RUAG; we are currently expanding our development capability to offer even greater flexibility for our customers. We are excited about the possibilities of combining this latest development with the traditional virtues of Swiss quality and customer satisfaction along with RUAG's drive for innovation and added value and look forward to building even more effective long-term partnerships in the future.

A handwritten signature in blue ink that reads "Paul Infanger". The signature is stylized and fluid.

Paul Infanger  
Vice President Aerostructures Emmen

# RUAG Technology, Aerostructures Emmen Switzerland



## Company

The center of excellence, RUAG Technology Aerostructures Emmen, supplies integrated assemblies for civil and military customers in the airframes and engines industry. It encompasses engineering, part production, assembly and system integration. In addition, RUAG Technology Aerostructures Emmen offers product support service throughout the system's lifetime.

## People

With more than 300 highly skilled staff we have positioned ourselves as a preferred employer in the aerospace industry. RUAG's broad range of activities has earned it a good reputation among junior engineers in particular. RUAG's HR policy is generous investment in ongoing internal and external training for employees.

## Location

We are located in Emmen near Lucerne, Switzerland. The site can be reached easily by car or train. It takes approximately one hour to/from the international airports of Zurich and Basel. The site is well served for transportation, especially by its own runway.

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## RUAG Technology

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