

Case Study | Aerospace

# COMPLEX END-TO-END AERO-STRUCTURE DESIGN SERVICES

THE COMPANY NEEDED TATA TECHNOLOGIES TO PROVIDE TURNKEY PROJECT MANAGEMENT SOLUTIONS FOR THE JOINT CONCEPTUAL DESIGN PHASE FOR THE DEVELOPMENT OF A NEW BUSINESS JET.

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## THE CHALLENGE

- Developing a concept for structural modules.
- Validating the design and analysis.
- Managing weight.
- Interfacing with other modules and systems.
- Designing modules to build using Tata's aerospace ecosystem.

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## THE COMPANY

The company is an industry leader in business aviation and defence and security. It has its headquarters in Italy and is dedicated to cutting edge aviation technology.



## THE SOLUTION

### Phase 1 – Agreement

- A joint definition of the project took place with the customer team.

### Phase 2 – Knowledge acquisition

- The customer completed a knowledge transfer.
- Trade-off studies were completed.

### Phase 3 – Validation

- Automation took place to analyse margins of safety.
- A detailed stress report was completed to substantiate the designs.
- The project was delivered on time and the joint concept definition phase closure was within schedule.

## THE RESULT



Min 50% cost savings for fuselage sections



Macro planning for the entire process



Conceptual definition of assembly process

## ABOUT US

Tata Technologies is a global engineering and product development IT services company that is focused on fulfilling its mission of helping the world drive, fly, build and farm by enabling manufacturing companies across the automotive, aerospace and industrial heavy machinery verticals realize better products and drive efficiencies in their businesses. There are two components to our value proposition – managing and delivering outsourced engineering services and products for our manufacturing clients, and helping them identify and deploy technologies that are used to conceptualize, design, validate, build, test, benchmark and realize better products. For more information, visit [www.tatatechnologies.com](http://www.tatatechnologies.com).