



Case Study | Automotive

# LIGHTWEIGHT BODY IN WHITE (BIW) AND CLOSURES DESIGN

A STARTUP ADVANCED VEHICLE GROUP NEEDED RESOURCES WITH LIGHTWEIGHT BODY AND DESIGN EXPERIENCE.

## THE CHALLENGE

- The client was lacking sufficient engineering resources with lightweight body and closures design experience.
- Working with the packaging, exterior surface development and other engineering disciplines to meet tight development timeline.
- Executing the BIW and closures design within the unique parameters defined by the client.
- Designing a structure that meets both computational fluid dynamics (CFD) and aerodynamic requirements.

## THE COMPANY

A startup advanced vehicle group and design studio working to create a line of fuel-efficient plug-in electric fleet vehicles designed to reduce fuel costs for corporations with a large commercial fleet.



## THE SOLUTION

- Onsite/offsite program management and client interface with offsite design execution
- Dedicated team, experienced in automotive lightweight materials design
- Body and closure design group established to support, and work in parallel with, the client's other vehicle design disciplines allowing the vehicle development to proceed on schedule
- Advanced usage of CATIA V5 methods
- Rapid response capabilities
- Team worked to develop a full unibody (monocoque) aluminum structure to be compatible with vehicle packaging and engineering requirements

## THE RESULT



Completion of a full unibody (monocoque) aluminum structure



Established a body and closures design group



Vehicle development was on schedule



Design met all vehicle packaging and engineering targets

## 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).