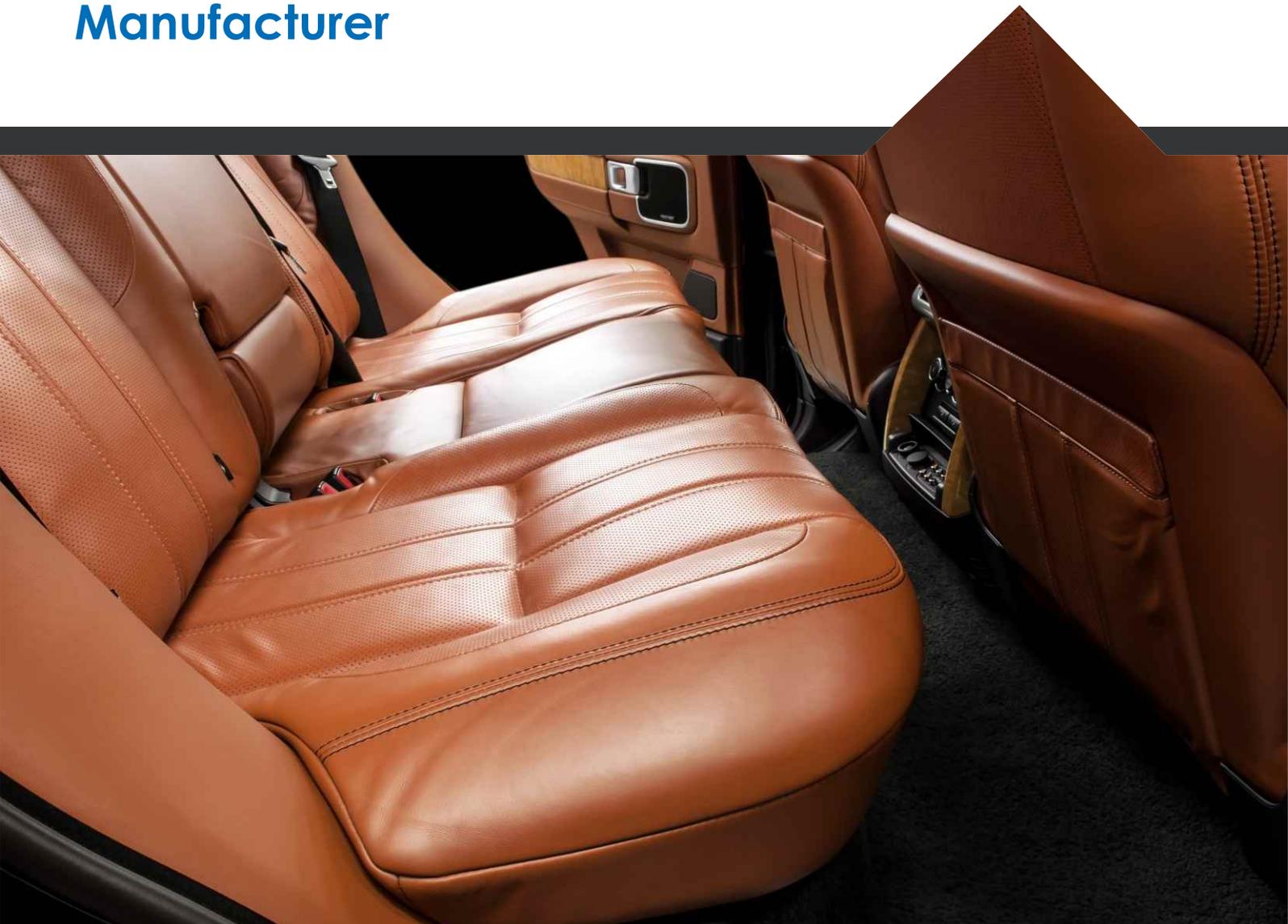


# Optimized Design & Improved Product Quality Systems & Processes for a Leading Seating Systems Manufacturer



## SITUATION

The customer had to keep abreast of the market demand for innovative and economic automotive seating design. The customer was looking for a solution to provide optimal design and improved product quality systems and processes.

## IMPACT

The existing system used by the customer was the in-house product design and development process that warranted huge costs on manpower and time. The product design was not optimal for the given market requirements while the costs, quality and response to market needs had to be improved.

## RESOLUTION

ITC Infotech's Extended Engineering Centre (EEC) worked as a part of the customer's design team. ITC delivered high quality designs, prototypes, testing, validation and analysis of different seating types and components, leading to a 50% savings in operational costs.

## The Customer

The customer is a leading manufacturer of engineered seating systems and mechanisms. It is a major global supplier of seating systems to the automotive industry across North America, Europe and Asia. The company is specifically involved in the design and manufacture of recliners, latches, and specialty mechanisms for passenger vehicles.



## The Need

The customer was faced with changing market needs while the market itself was transforming rapidly. It needed to be able to keep pace with the growing market demand for innovative and economic automotive seating systems.

Further, the customer had to ensure that seating systems were brought to the market quickly to be able to gain a competitive edge. Design optimization and improved product quality was another need the customer had to ensure along with newer product development processes.

The customer needed to do this within a short time frame and wanted an experienced engineering design partner that had well-established quality and security processes and could help them design high quality products at lower costs.

## The Solution

For the customer, ITC Infotech set up an Extended Engineering Centre (EEC) in India to help them create new product designs and introduce enhancements quickly. ITC Infotech brought to the engagement its experience of over 6 years in business engagement and its capability to be closely involved with the customer at every step of the product design and development process.

As part of this engagement, a team of engineers from the customer moved to ITC Infotech's Extended Engineering Centre (EEC) in Bangalore, India to collaborate with the experts. ITC Infotech provided a 3-layer quality management process that had a first level check by offshore consultants to identify and address base level deviations, while a second level detailed check was made by a dedicated quality assurance team for bugs and anomalies. The final check was by the on-site co-coordinator and delivery head to address larger, enterprise level concerns.

ITC Infotech brought its experience in delivering large scale engineering design projects providing best practices, accelerators, process models, frameworks, controls and benchmarks. The other details of the engagement include:

- Specialized product design services with concept and detailed design, packaging studies, design studies and prototyping of recliners (both manual and power), latches, tracks and head restraints
- Studied the product design for tolerance stack up analysis

- Developed functional prototypes and Prototype with 3D printing
- Meshing, analysis and reporting with CAE and Structural Simulation
- Product testing and validation included strength testing, endurance testing, functional and endurance testing and rigid body dynamics – MDO

## Business Benefits

The customer was able to derive the following business benefits:

- 50% savings in operational costs
- Excellence in product design with focus on innovation
- Superior design through stringent quality and security norms
- Dedicated offshore centre provided access to technical expertise and matured engineering processes, enabling faster scale up
- Extended team to help design

### ITC Infotech's PLM Practice

ITC Infotech shares a decade-long strategic partnership with PTC and is a leading provider of PTC Suite of Products. We have Centres of Excellence in specialized PLM technologies and are frontrunners in innovative methods, processes and skills in the PLM space. ITC Infotech has the largest number of PTC certified consultants and seasoned industry experts within depth knowledge of PLM.

The company has worked with some of the leading Aerospace & Defence, Automotive, Industrial Equipments, Hi-tech, Oil & Gas, Retail, Apparel and Footwear (RFA) and Consumer Goods companies across the world.

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