



Case Study | Industrial Heavy Machinery

# INDUSTRIAL DESIGN – EXCAVATOR CONCEPT

THE CUSTOMER WANTED A DESIGN CONCEPT FOR AN EXCAVATOR FOR UPCOMING PRODUCTION. TATA TECHNOLOGIES WAS SELECTED BASED ON OUR CREATIVITY, INNOVATIVE IDEATION, CONCEPT GENERATION AND PROVEN ENGINEERING SERVICES.

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## THE CHALLENGE

- Demonstrating design vision and, at the same time, engineering feasibility.
- Ensuring a progressive design without alienating brand loyal customers.
- Creating distinct visual cues that will distinguish the excavator's exterior profile from the competition.
- Improving interior design to be more spacious and provide intuitive human machine interface (HMI).
- Incorporating features that integrate new and innovative technologies.
- Designing a vision model that will seamlessly translate into production.
- Meeting the demands of a global original equipment manufacturer (OEM) with fast-paced product development timing.

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## THE COMPANY

A global enterprise that develops and manufactures high-tech equipment for the engineering and agricultural industries. The company has more than 20 years of innovation and development experience with nearly 800 leading products.



## THE SOLUTION

### Phase 1 – Concept Generation

- Conducted multiple brainstorming sessions with the client and benchmarked competitive products.
- Generated a variety of concept themes for the customer to select from during design reviews.
- Offered flexibility for the fast-paced global customer while converging on a successful final design.
- Provided preliminary interior packaging and occupant reach studies on interior controls while package protecting for additional large displays.

### Phase 2 – 3D Concept Modeling

- Leveraged a global team for concept 3D modeling and class A surfacing to develop a product that meets all engineering criteria.
- Delivered the final design as 3D model data ready for subsequent engineering feasibility studies.

## THE RESULT



Design provided competitive advantage in target market



Improved brand value



Reduced design costs



Improved usability and visibility

## 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).