

ESG transformation for a Swedish luxury automobile manufacturer

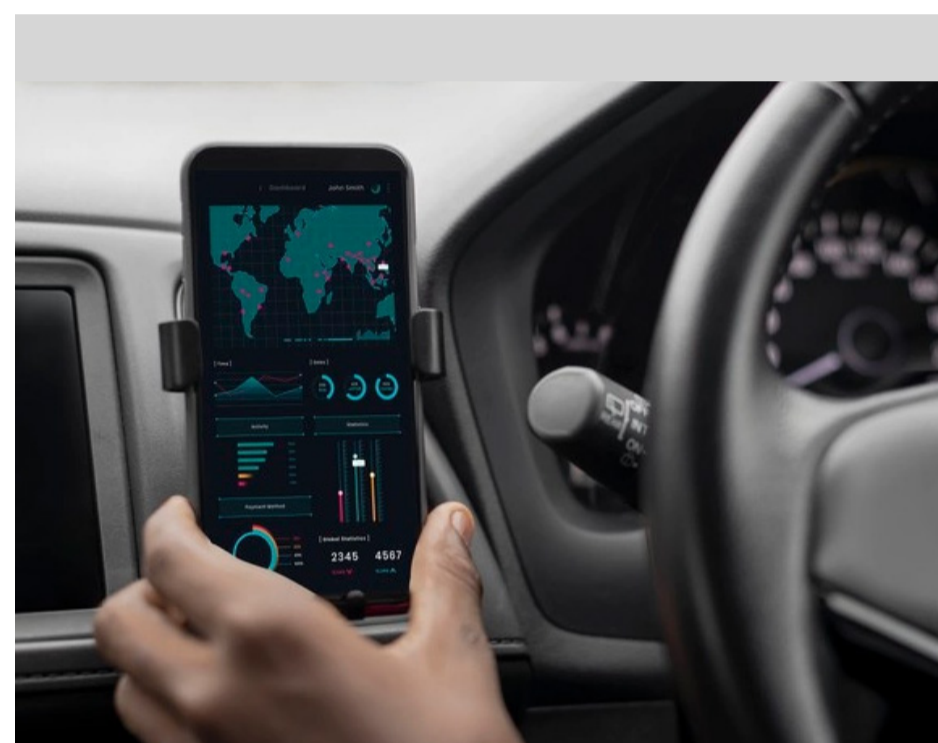
Client description

HCL is the strategic partner for a leading European car maker. We work with their sustainability reporting and product compliance division. Our work spans across energy efficiency and emissions, product certification and compliance, sustainability insights, and WLTP (Worldwide Harmonized Light Vehicles Test Procedure).

HCL's role in the transformation journey

Energy efficiency determination application

- ▶ The client allows customers to configure cars and calculate the emission of the configured car for its emission range, analyze the 'high-low' bucket and submit these details for certification
- ▶ HCL built a WLTP Application that focuses on calculating CO2 emission and fuel consumption for all car configurations.
- ▶ The application uses a variant driven approach to bring various attributes such as weight, aero, IPF, and road load into consideration for emission calculation.
- ▶ It is integrated with Global Car Configurator, CoC2, and CO2 emission monitoring applications.

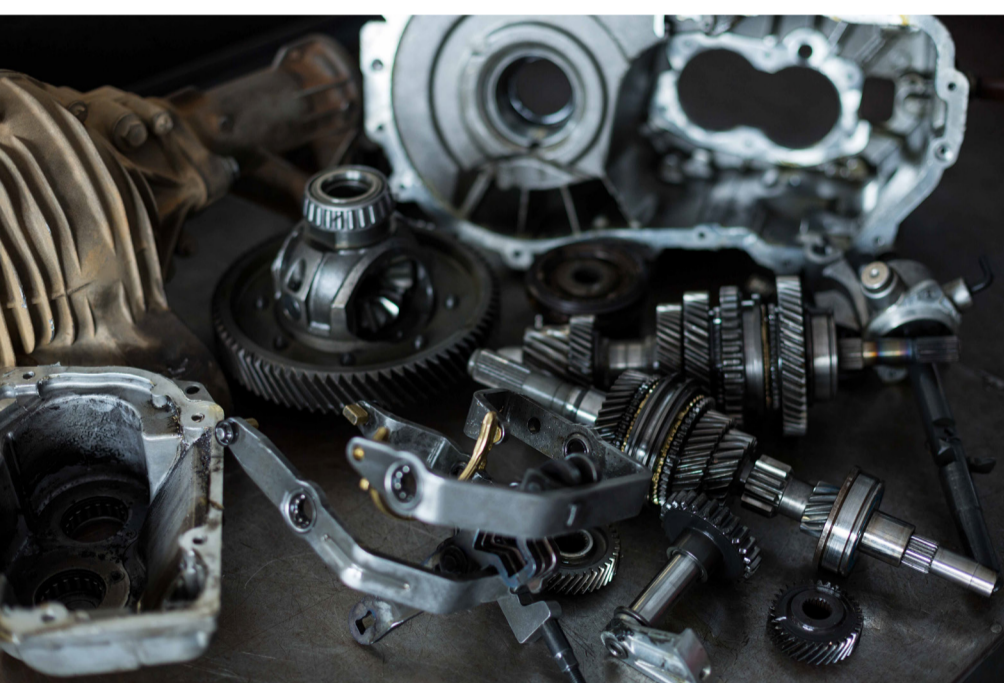


Car certification modernization

- ▶ Developed a roadmap for streamlining and automating the vehicle certification process to ensure ease of update for future regulation changes
- ▶ Designed and built Certificate of Conformity (CoC2) application with an automation-driven approach which stores all COC related information in 7 languages with efficient data handling.
- ▶ Real-time dashboard provides insights into car certification process and enables timely action in case of delays.

CO2 emission monitoring applications

- ▶ Built tools to assist in monitoring and forecasting CO2 emission and applicable credits across markets and provide insights for informed decisions on sales (variants to sell) and design impact.
- ▶ Measured compliance against market regulation (CAFE & CREE) in EU and US.
- ▶ Provided ability to forecast 2 years ahead of energy consumption to avoid any fines/penalties for regulation non-compliance.
- ▶ Aligned with long term strategy (5+ years) toward sustainability.



Sustainability reporting and insights

- ▶ Supported the development of information value chain for material information department.
- ▶ Enabled transparency through reliable data quality that is traceable to the correct source.
- ▶ Sustainability reporting via different formats or APIs and data ingestion via integrations, with traceability requirements.
- ▶ Advanced dashboards and ML-based forecasting
- ▶ Reporting for greenhouse gas emission as part of the corporate sustenance program.

Business benefits



40% reduction in response time for emission calculation of any configured car.



30% cost savings with redesigned car certification process and application.



Composable applications with the ability to scale based on market and regulatory requirements.

