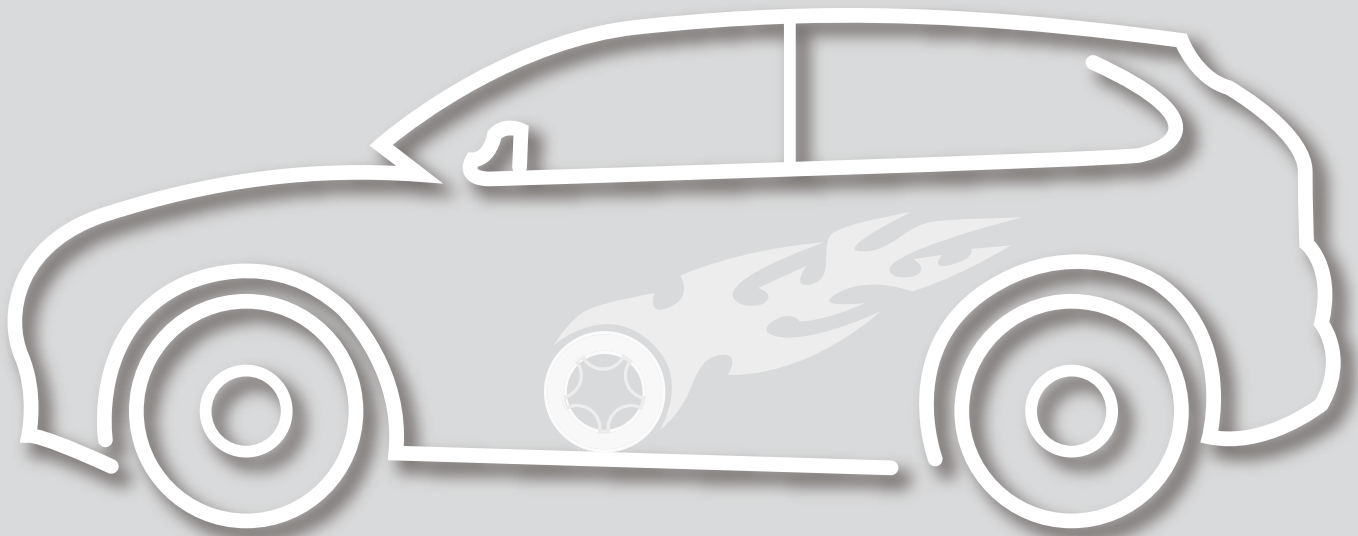**HCL**

HCL in the
Automotive Industry
Solutions for Advanced Passenger Experience

UNDERSTANDING THE **INDUSTRY**

- Market trends: volatile raw material costs and fuel prices; falling demand; tighter emission regulations; increased governmental oversight; consumer demand for cleaner, greener cars
- Automotive leaders cutting costs by improving efficiencies in product development, supply chain management, and manufacturing and dealer collaboration
- Need for making strategic investments for the future in new vehicle technologies

Industry Trends	Business Challenges

• Auto Industry is under restructuring
  – New OEMs, New Tier 1
• Shifting global demand
• Rapidly changing consumer needs
  – Greater environment awareness
  – Smaller and more fuel efficient cars
  – Alternate PT
• Increased regulations and mandates
	• Intense pressure on profitability
	• New designs
	  – R&D on fuel sources
	  – Smaller and lighter cars
	• Reduce excess capacity
	• Flexible manufacturing
	• Globalization
	  – Local design and assemble
	  – Supplier integration
	  – Logistics management
	• Prepare for Generation Y
	  – Connectivity
	  – Electronics and warranty
	• Process and platform standardization

HCL – Here to help

- *Over 10 years experience*
- *7 of the top 10 global automotive companies*
- *Dedicated teams for Automotive IT, Engineering and Embedded services*
- *End-to-end IT services & solutions - ADM, ASM, Infrastructure Management and Operations, BPO*
- *Continuously investing to provide solutions for 'Advanced Passenger Experience'- unique suite of solutions blending smart electronics and mechanical enhancements for various subsystems in automobiles*
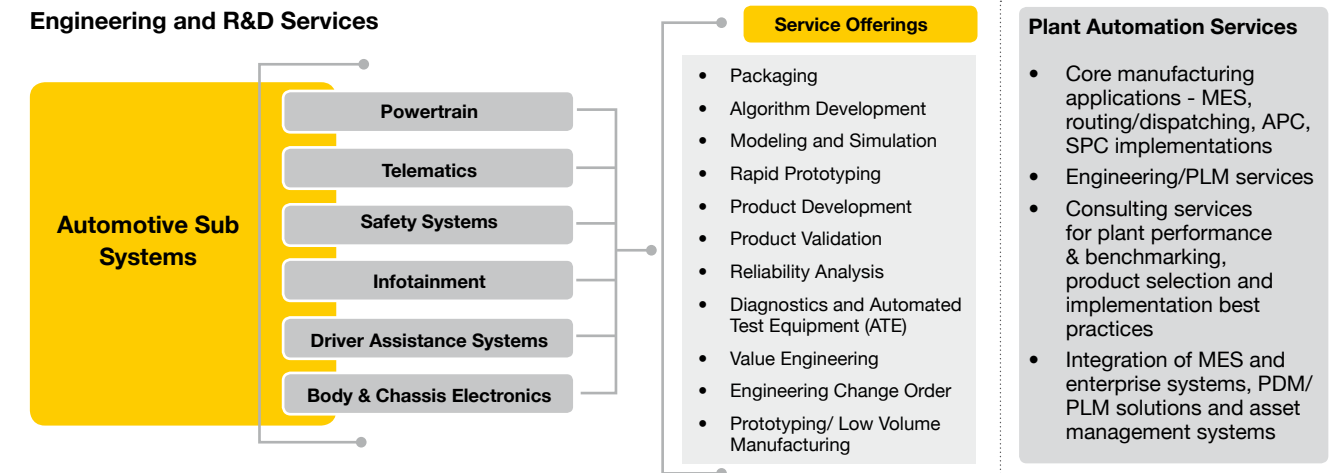
AUTOMOTIVE **VALUE+ SOLUTIONS**

- Serving automotive OEMs and automobile component manufacturers across the globe
- Integrated services spanning enterprise IT solutions, engineering, electronics & embedded services, plant automation services for tier 1, tier 2, OEMs and dealers
- Expertise across numerous automotive sub-systems and a dedicated auto test lab adhering to international standards like ISO, SAE
- Best of breed partnerships with leading enterprise solutions vendors, and industry specific associations and forums

IT Services

IT ADM/ ASM	Supply Chain Management	BAIT
Application management and process improvements	A comprehensive supply chain strategy, diagnostics and BPR	Framework for IT alignment to business

PLM	Enterprise Resource Planning	Warranty Management
Product Lifecycle Management and portfolio analysis	ERP systems like Oracle, SAP, BaaN, QAD	Warranty analytics and claim processing

Engineering and R&D Services

Automotive Sub Systems
- Powertrain
- Telematics
- Safety Systems
- Infotainment
- Driver Assistance Systems
- Body & Chassis Electronics

Service Offerings
- Packaging
- Algorithm Development
- Modeling and Simulation
- Rapid Prototyping
- Product Development
- Product Validation
- Reliability Analysis
- Diagnostics and Automated Test Equipment (ATE)
- Value Engineering
- Engineering Change Order
- Prototyping/ Low Volume Manufacturing

Plant Automation Services
- Core manufacturing applications - MES, routing/dispatching, APC, SPC implementations
- Engineering/PLM services
- Consulting services for plant performance & benchmarking, product selection and implementation best practices
- Integration of MES and enterprise systems, PDM/PLM solutions and asset management systems

Some of the Automotive Industry Solutions

Contract Management Solution	An end-to-end contract management solution for suppliers, OEMs, dealers and rental agencies, providing an efficient method of monitoring vendor performance, with flexible pricing strategies based on historical data and market conditions while streamlining creation, storage, management and analysis of contracts
Customer Management Solution	Addresses the sales, marketing & service needs of dealers and support centers, helping them get deeper insights into customer data and providing a holistic view of customer interactions across different communication channels
Demand Planning Solution	A web-based adaptive planning platform built on Oracle Demantra - ensures real time visibility into demand and demand changes
Mobile Vehicle Inspection Solution	A PDA enabled system for dealers, service centers and vehicle inspection and insurance agencies – ensures quick and efficient processing of customer service requests for vehicle inspection / breakdown services. Uses GIS/GPS and GPRS technology to allow communication with service teams/ inspectors on the field
Trade Compliance Solution	A web based solution to automate the process of assigning SIC (Standard Industrial Classification) to component parts and to facilitate quick and easy invoice generation. Enables faster data retrieval and handling, significantly reducing customs clearance time
Warranty Management Solution	A comprehensive web-based warranty claims processing system with predictive analytics & functionality for vehicle registration, contract definition, warranty process control, claims processing & settlement, dashboard & KPI reporting, RMA reports, and warranty analytics

PEOPLE IN ACTION
THE AUTOMOTIVE TEAM

- Automotive electronic products supported by HCL applications are being used and installed in almost every major European car and commercial vehicle brand
- BMW ranks us in the top-most categories amongst more than 130 organizations worldwide in their quality audit; received the prestigious SPICE rating
- Reputed for delivering defect-free, full lifecycle and partial lifecycle product engineering services and IT services
- State-of-the-art Automotive Lab for conducting qualification tests for vibration, humidity, altitude, dust and thermal shock
- Manufacturing oriented design processes, in-house environmental screening & certification infrastructure, and manufacturing tie-ups to provide unique concept-to-manufacture solutions
- Integrated services approach helping customers achieve faster time to market, collaboration, and visibility across supply chains

7 of the top 10 automotive companies	Industry Focus Tier 1 Suppliers, OEMs		*HCL designed [zero recall] product in a million+ vehicles*	
Domain Expertise	**Value Focus**	**Domain led innovation through Partnerships & Industry Alliances**	**Comprehensive services across the ecosystem**	**Unique Business Models**
• Engineering legacy of over 3 decades with strong automotive focus • 1500+ domain & technology professionals • Leading provider of Integrated Services - Engineering, Electronics, Embedded and Enterprise IT solutions • Experience across several product areas - Safety Systems, Infotainment, Body and Chassis Electronics, Driver Assistance and Telematics • Several IPs, frameworks and reusable components to go to market faster - Reverse View Aid, Intelligent Head Lamp Control, Lane Departure Warning and Traffic Signboard Detection • Automotive certifications - ISO 16949; BMW SPICE Level 5 for development and project management processes; TS 16949 compliant Standard Operating Procedures • $8m state-of-the art automotive lab for software development, simulation and testing, adhering to ISO, IEC and SAE Global Standards	• Leveraging industry standards, best-in-class technologies, robust processes and extensive tools • Integrated design and new product introduction processes	• CAR • AUTOSAR • Oracle [Global Advantage Partner] • SAP [Global 16] • Microsoft [Global 18] • Tibco • IBM • i2 Technologies	• Enterprise Solutions • Product Engineering • App Services, Mgmt & Operations • BPO • Infrastructure Services • Enterprise Transformation • Systems Integration	• Risk-Reward Sharing • Output Based Pricing • JVs
10+ global customers				

SUCCESS STORIES

Testimonials

Your team comprehends and feels our commitment to our project and that has made a huge difference. I'm reassured that your team will do what it will take to make this not only a successful implementation, but a continued successful support and enhancement environment

Program Manager, Customer Organization

Case Studies

Infotainment [Complete Dashboard Solution]

A leading tier 1 automotive electronics supplier partnered with us for a cross-technology, cross-platform end-to-end software solution for the entire dashboard cluster [driver, applications and display]. *Results*: A complete requirements-to-testing solution for the entire cluster. After providing onsite in-vehicle testing, this product is successfully being used in more than 1 million cars worldwide.

Planning and Forecasting Solutions

A leading tier 1 global automotive supplier in the US approached us as it had no visibility into actual demand. We implemented Oracle Demantra for demand management, advanced forecasting, and demand modeling & operations planning. *Results*: Improved forecasting accuracy by 45% and working capital and cash cycle by 20%, increase in inventory turns by 15% and reduced shipment cycle time from 8 hours to just 20 minutes.

Passenger Safety Systems

HCL has successfully completed several projects for leading automotive companies in the areas of lane departure warnings, blind spot detection, panoramic rear view aid systems and crash notification systems to provide safety and driver assistance solutions to these customers. *Results*: The panoramic rear view aid system is an IP being developed by us which has 4 cameras against the current 3 camera solution available in the market. HCL developed algorithms to stitch the camera images together and provide a single panoramic display to the driver.

Supply Chain Management

We provided a proof-of-concept real-time web-based decision support system to monitor and optimize the supply chain of one of the world's largest automobile manufacturers, using Six Sigma methodologies. *Results*: Intuitive information to aid decision makers and a model supply chain network, which can intimate stakeholders in real-time in the event of any risk.

HCL: **$6.2**bn | **90000** PEOPLE | **31** COUNTRIES

HCL'S AUTOMOTIVE TEAM
IMPACTING THE WORLD

- **Experience** – Over 10 years
- **Customers** – 10+ global customers
- **Team** – 1500+ technology & domain consultants
- **Micro-verticals** – Auto OEMs, Auto Component Suppliers
- **Services** – Enterprise Transformation, Product Engineering & Development, System Integration IT Services, Management & Operations, BPO, Infrastructure Services
- **Partnerships** – CAR, AUTOSAR, Oracle [Global Advantage Partner], SAP [Global 16], Microsoft [Global 18], Tibco, IBM, i2 Technologies
- **Dedicated Automotive Lab** – State-of-the art lab for software development and simulation and testing, adhering to ISO, IEC and SAE Global Standards

THE WORLD IS NOTICING
SOMETHING UNIQUE ABOUT HCL

FORTUNE

Acknowledges HCL Technologies as the world's most modern management

HCL is also the only Asian company whose CEO featured on Fortune's 'Dream Team'

50

HCL is in the Elite "Thinkers 50" List

WORLD'S MOST DEMOCRATIC WORKPLACES

For the fourth time in a row, WorldBlu lists HCL as one of the Most Democratic Workplaces in the World

FORRESTER®

Publishes a Case Study recognizing the business value of HCL's *Employees First* - "For HCL customers, improved engagement and employee passion translates into greater flexibility, proactive innovation, and a desire to do the right thing for the customer, regardless of what the rules might say", it says.

ASIAN HUMAN CAPITAL AWARD

Wins the Asian Human Capital Award 2011 for innovative and impactful people practices centered on the Employees First, Customers Second philosophy

USA TODAY.

HCL's Employees First and 'democratization' of management concept could 'bring about a corporate renaissance'

HARVARD BUSINESS SCHOOL

Harvard Business School teaches about HCL as a case study on business transformation highlighting the Employees First initiative

Optimas AWARDS

Ranked as the world's Most Innovative Company in its workforce practices

Gartner

Exclusive report on EFCS recognizes that this philosophy empowers HCL's frontline employees to make decisions and take actions for the benefit of customers

top EMPLOYERS 2012

One of Britain's Top Employers for the 5th Consecutive Year

BusinessWeek

HCL's Employees First is a new and radical management philosophy which will catch on with the world sooner or later

UNIVERSITY of VIRGINIA
DARDEN SCHOOL OF BUSINESS

Darden School of Business has done a case study on the impact created by HCL through its "Employees First Customers Second" practice

groundswell

Honored with the Forrester Groundswell Award 2011 in the 'Management – Innovative Systems' category for 'Value Portal' – an employee idea exchange platform where employees collaborate, innovate and lead the implementation of their ideas to deliver value to HCL's customers

Published by Harvard Press, **Employees First, Customers Second** is admired by global thought leaders - Tom Peters, Tony Hsieh, Gary Hamel, Judy McGrath, Ram Charan and Victor K. Fung; Ranked No. 17 on the Best Seller list in 800-CEO-READ; Listed amongst the 'Best Business Books of 2010' by the Library Journal of America; Ranked No. 7 on Amazon UK's listing of 'Best Business Books of 2010'.

IT IS
EMPLOYEES FIRST

The 'Employees First' philosophy at HCL, the first such articulation in the IT Industry, is at the core of our efforts to provide our employees with a work environment and culture that they can take pride in.

Employees First.

When you channelize the energies of 90,000 employees and pour it into a funnel, you get a potent concoction gushing out of the other end that will send your company's engines racing.

We call this the Employees First effect.

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HCL