

HCL



HCL in
Aerospace & Defense



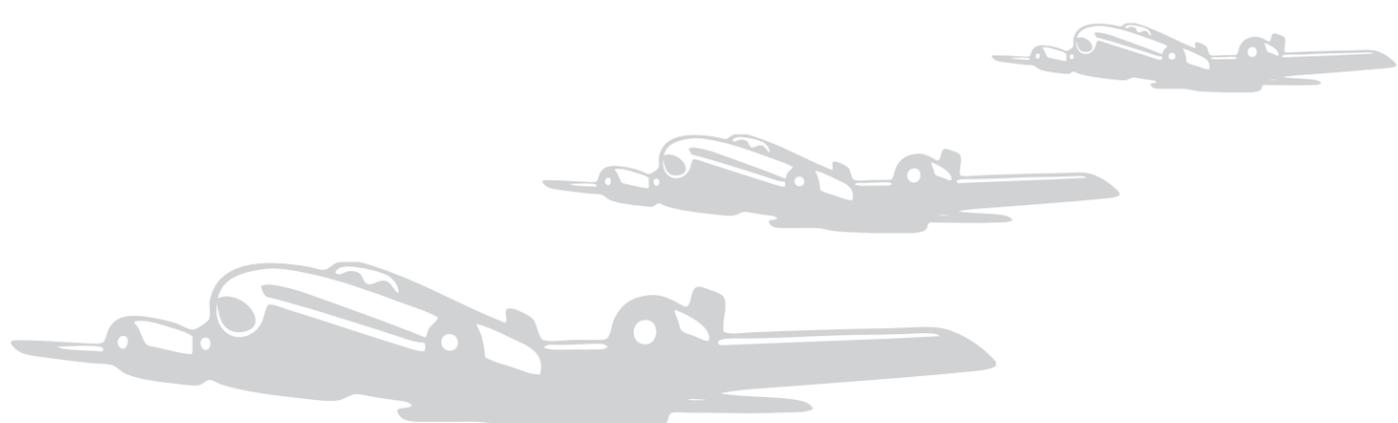
UNDERSTANDING THE INDUSTRY

- Industry at an inflection point; continuing to move towards the eastern regions of the world - China, India, the Middle East, expected to be large markets for products and services and be participants in the supply chain
- China expected to drive demand for over 3,500 commercial aircrafts in the next 20 years; expected to become a major player in commercial aircraft production, with an all new regional jet in the test & certification process, and a next generation single aisle aircraft on the drawing board with a scheduled first flight in 2014
- India experiencing same phenomena of upward mobility in population, creating demand for air travel
- United Arab Emirates (UAE) in the Middle East investing significant resources - building an aerospace industry with announcements of joint ventures and industrial developments for component manufacturing and MRO
- Global A&D market: current value at \$740 billion and projected to grow to \$940 billion by 2014 [Source: Datamonitor Report December 2009]

Challenges	Opportunities
<ul style="list-style-type: none"> • Decrease in demand due to economic slowdown and lower defense spending • Innovations expected from products and processes • Program delays and cost overruns • Ageing and declining workforce • Emerging markets and workforce changes drive aero companies to act globally • Supply chain challenges • Industry consolidation (M&A) and regulatory compliance 	<ul style="list-style-type: none"> • Enter new markets – Increase in M&As • Product and process innovation – through digital product definition tools and processes; outsourcing to low cost countries • Streamlining processes - improve cost, schedule, risk management, processes and techniques and strong change order management processes • Utilize the global workforce - modernize HR programs to balance compensation, benefits, and career and work issues • Partner with preferred suppliers - build collaborative risk sharing relationships with suppliers

HCL – Here to help

- Over 10 years experience
- 40+ global customers including the world's top 3 aerospace OEMs
- The preferred Aircraft Program Partner
- End-to-end IT services and solutions - ADM, ASM, Infrastructure Management and Operations, BPO



AERO & DEFENSE VALUE+ SOLUTIONS

- Business aligned engineering services and delivery excellence through state-of-the-art global engineering centers
- Engineers function as an extended engineering arm of companies we partner with
- Collaborating on cutting edge technologies and developing products for new aircraft programs
- Maintaining and enhancing avionics for aircrafts in operation
- Proven in-house development cycles and tools

HCL Touch Point across the Value Chain				
Product Systems	Business Systems	IT Operations	Industrial Participation Partner	Sales & Aftermarket
<ul style="list-style-type: none"> • Avionics, Electrical & Power Systems • Aero-structures, Aero Engines and Systems • Program Partnership 	<ul style="list-style-type: none"> • Finance • Supply Chain • Program Mgmt • HRMS • Internal Systems 	<ul style="list-style-type: none"> • Architecture and Information Mgmt • Custom Application Development • Mfg IT & Plant Automation Services 	<ul style="list-style-type: none"> • Defense Programs • Offset Obligations 	MRO

Services across Aerospace & Defense Manufacturing



HCL Service across the Value Chain					
<ul style="list-style-type: none"> • Independent Program Mgmt (IPM) • Program Assessment & Advisory • PMO Setup & Support Group 	<ul style="list-style-type: none"> • Supply Chain Optimization • Supply Chain Diagnostics • Performance Benchmarking • BPR 	<ul style="list-style-type: none"> • Plant Automation • MES • Plant Performance Improvement • Shop floor ERP Integration 	<ul style="list-style-type: none"> • Supply Chain Assessment • Solution Evaluation & Package Recommendation • Solutions Implementation 	<ul style="list-style-type: none"> • CRM Strategy, Implementation diagnosis and roadmap • Customer Experience Mgmt • BPR 	<ul style="list-style-type: none"> • MRO • Spare parts Mgmt • Warranty Mgmt • Contract Mgmt

Business Benefits						
High success rate of programs - increased revenues and customer satisfaction	Improve supplier relationships with timely availability of input materials	Improve manufacturing visibility and increase plant performance	Optimizing responsiveness; reduced inventory levels and transportation costs	Improve visibility on Sales Opportunities and pipeline	Maximized asset utilization; reduced maintenance down time	IT solutions for aero space – iMRO [pre-configured solution for A&D MRO], Contract Processing Tool, Flight Test Plan Tool, iCREW [workforce management tool]



PEOPLE IN ACTION

THE AERO & DEFENSE TEAM

- Holds 23% of the market share of all A&D work done by Indian outsourcing services providers
- The largest “dedicated” aerospace practice with over 3500 dedicated professionals
- Worked with 8 of the top 10 aerospace companies in the world
- Rated as a “Top Choice” by Forrester, Gartner, and AMR
- First Indian company to be AS9100 certified; compliant and extensive DO 178B & DO 254 experience
- Part of the ANRC (Aircraft Network Research Consortium) for applied research
- Executed over 750 projects for 40+ customers including 2 leading commercial aviation OEMs
- Developed ‘global visibility dashboards’ for operational, business and IT metrics for a “ Global Integration Strategy”

Industry Focus		Key Achievements			
Aerospace & Defence OEMs, Prime Contractors, System Suppliers, Equipment Suppliers, Component Suppliers		<ul style="list-style-type: none"> • Top 3 aerospace OEMs in mission-critical applications • Running the single largest aero structures program for an Indian outsourced services provider 			
Domain Expertise	Partnerships & Industry Alliances	Certifications	Excellence Centers	Comprehensive services across the ecosystem	Unique Business Models
<ul style="list-style-type: none"> • Over 10 years experience • Most experienced offshore service provider and leading program partner for aerospace programs • Aircraft Program Partnership [B787 and A320] and Onboard & Ground Support Equipment experience • Largest dedicated Aerospace practice in India <ul style="list-style-type: none"> - 3500+ dedicated engineers and consultants - 750+ projects for 40+ A&D customers globally, including 2 leading commercial aviation OEMs - 20+ aircraft systems experience - Built systems to test, evaluate and certify avionics - Provided 38% of airborne SW development on a recent next generation program - Extensive experience in DER Audits 	<ul style="list-style-type: none"> • Domain led innovation through partnerships & industry alliances • Strategic partnerships with three leading aircraft manufacturers • Part of ANRC (Aircraft Network Research Consortium) 	<ul style="list-style-type: none"> • Aerospace specific quality certifications and methodologies - ISO 27001, compliant with DO 178B, DO 254 - First Indian company to get AS9100 - CMM Level 5 - Mature and proven AQMS Framework - Working on cutting edge technologies – ANRC and RTCA - Comprehensive understanding of regulatory requirements – ITAR on information exchange 	<ul style="list-style-type: none"> • Global Engineering Hub – providing best in class aerospace solutions 	<ul style="list-style-type: none"> • Enterprise Solutions • Product Engineering • App Services, Mgmt & Operations • BPO • Infra Services • Enterprise Transformation • Systems Integration 	<ul style="list-style-type: none"> • Risk-Reward Sharing • Output Based Pricing • JVs
40+ global customers					

SUCCESS STORIES

Case Studies

Guaranteeing ROI through risk sharing

HCL entered into a unique risk mitigation partnership with a leading avionics company that had transferred systems development to its contractors, paying them only as planes utilizing their systems were sold. **Results:** Jointly investing in product development, HCL billed 45% of the traditional hourly rate [in effect investing the entire profit and more into the product]. The high stakes drives HCL to deliver more value, which contributes to the program’s success, resulting in transformational impact on product risk and revenue.

Transformational impact on product development

A leading aerospace OEM & Tier 1 supplier’s legacy environment was impacting its ability to take up new business opportunities. It partnered with us to transform its IT environment and resolve legacy design with manufacturing processes. **Results:** HCL designed lean manufacturing processes for the airframe structures, which resulted in us being retained as the key engineering partner for design to cost activities on the C-27J aircraft.

Traffic Alert and Collision Avoidance System (TCAS)

A US-based tier-one supplier providing services to the commercial airline industry, partnered with us to develop the TCAS [or Airborne Collision Avoidance System (ACAS)] for one of its major aircrafts using an entirely new architecture which would make the system easily maintainable and more efficient. **Results:** This computerized avionics device reduces the danger of mid-air collisions. It monitors the airspace around an aircraft, independent of air traffic control, and warns pilots through an advanced Graphical User Interface that provides visual or oral alerts. CAS logic and the CAS simulator we developed helped avoid repetitive and cyclical software development arising due to technical risks. We provided record and replay facilities and executed multiple tests simultaneously, which drastically reduced regression time, and the 6-month initiative was completed in just 3 months.

Global Business Transformation

Driven by strategic acquisitions and internal growth, an American aerospace manufacturing company partnered with us to develop a global strategic program that would consolidate all of its operating divisions onto a single, global SAP solution based on the aero-structures’ template. **Results:** The single global platform provided key insights and real-time information than enhanced the decision-making processes; it helped increase cost visibility while enabling standardized processes across all Divisions. This was referred to as one of the most successful large-scale SAP go-lives in the aerospace and defense industry.

Testimonials

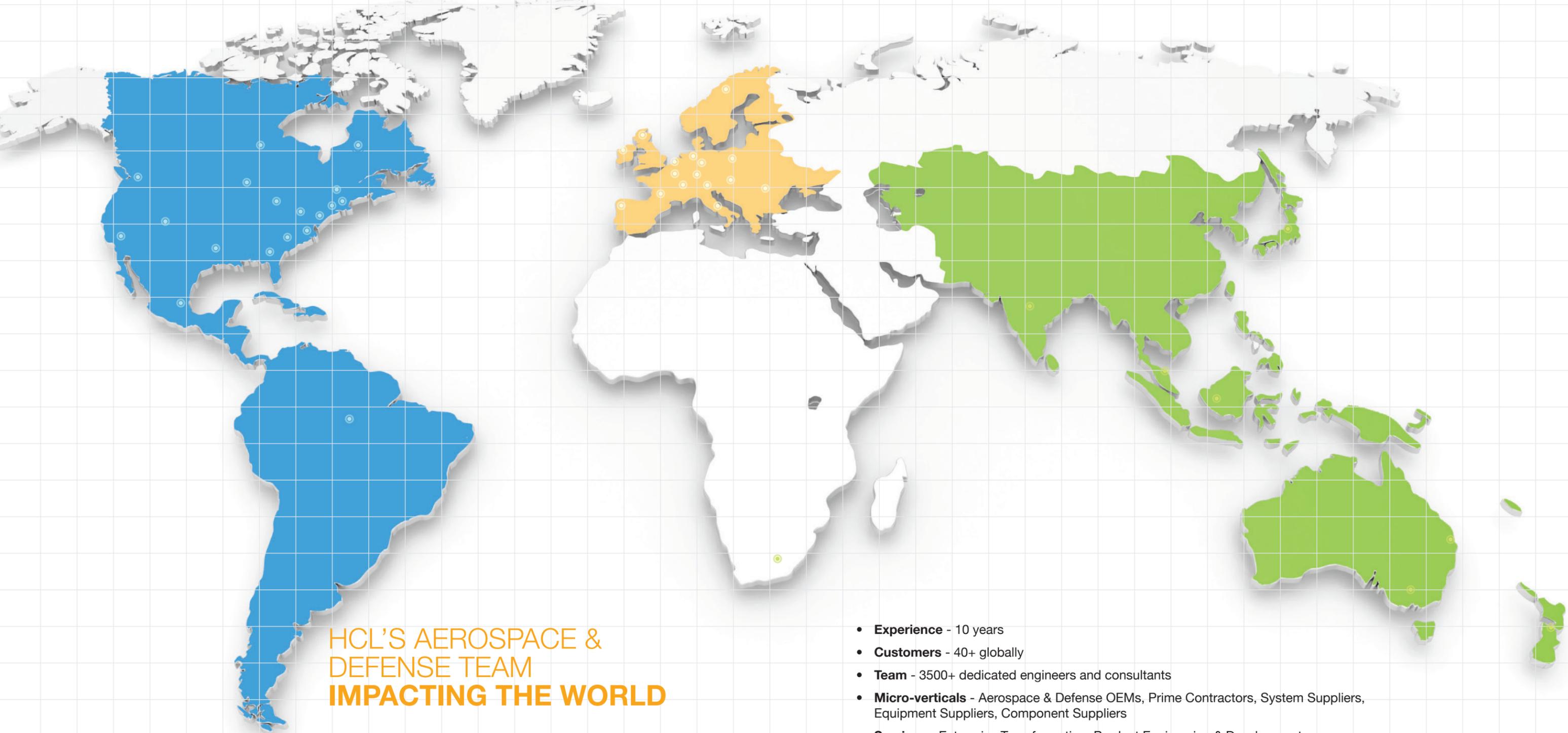
HCL’s contribution to our product engineering activities has been immense. They have a very high-caliber team and are extremely responsive. We see HCL as an important long term strategic partner.

Vice President of Engineering, world-renowned avionics, utilities, and in-flight entertainment company

Overall, we are very pleased with the outcome of the project and with HCL’s efforts. The team consistently demonstrated its professionalism and software development expertise during the development of the security implementation. All schedule milestones were met on time, and all delivered artifacts were of very high quality. Thanks again for a job well done!

Leading Tier-1 Company in the aerospace industry

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



HCL'S AEROSPACE &
DEFENSE TEAM
IMPACTING THE WORLD

- **Experience** - 10 years
- **Customers** - 40+ globally
- **Team** - 3500+ dedicated engineers and consultants
- **Micro-verticals** - Aerospace & Defense OEMs, Prime Contractors, System Suppliers, Equipment Suppliers, Component Suppliers
- **Services** - Enterprise Transformation, Product Engineering & Development, System Integration IT Services, Management & Operations, BPO, Infrastructure Services
- **Partnerships** - Aircraft Program Partnership with 3 leading aircraft manufacturers
- **CoEs** - Global Engineering Hub [for best-in-class aerospace solutions]
- **Certifications** - ISO 27001, AS9100, CMM Level 5, AQMS and RTCA

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'



HCL is in the Elite "Thinkers 50" List



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



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.



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



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



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



Ranked as the world's Most Innovative Company for 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



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



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



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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