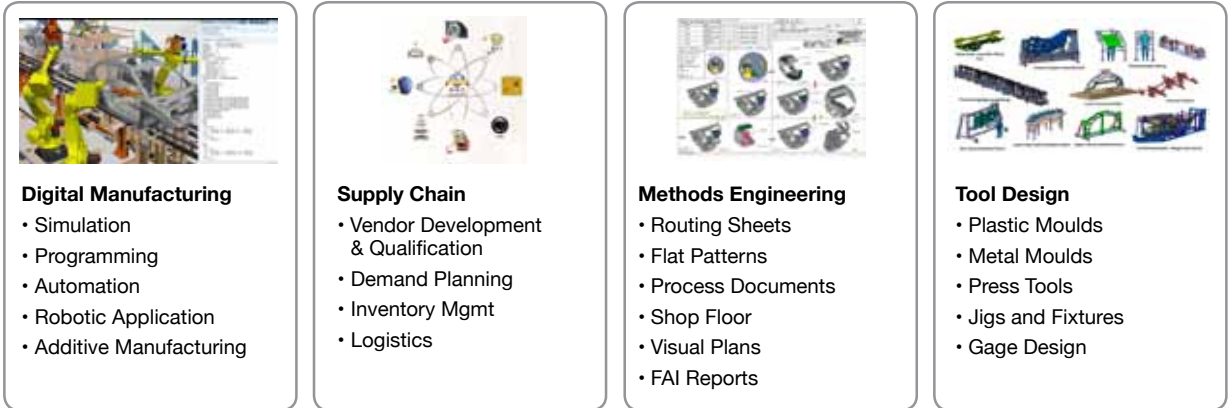


EXPERIENCE 21ST CENTURY **MANUFACTURING**

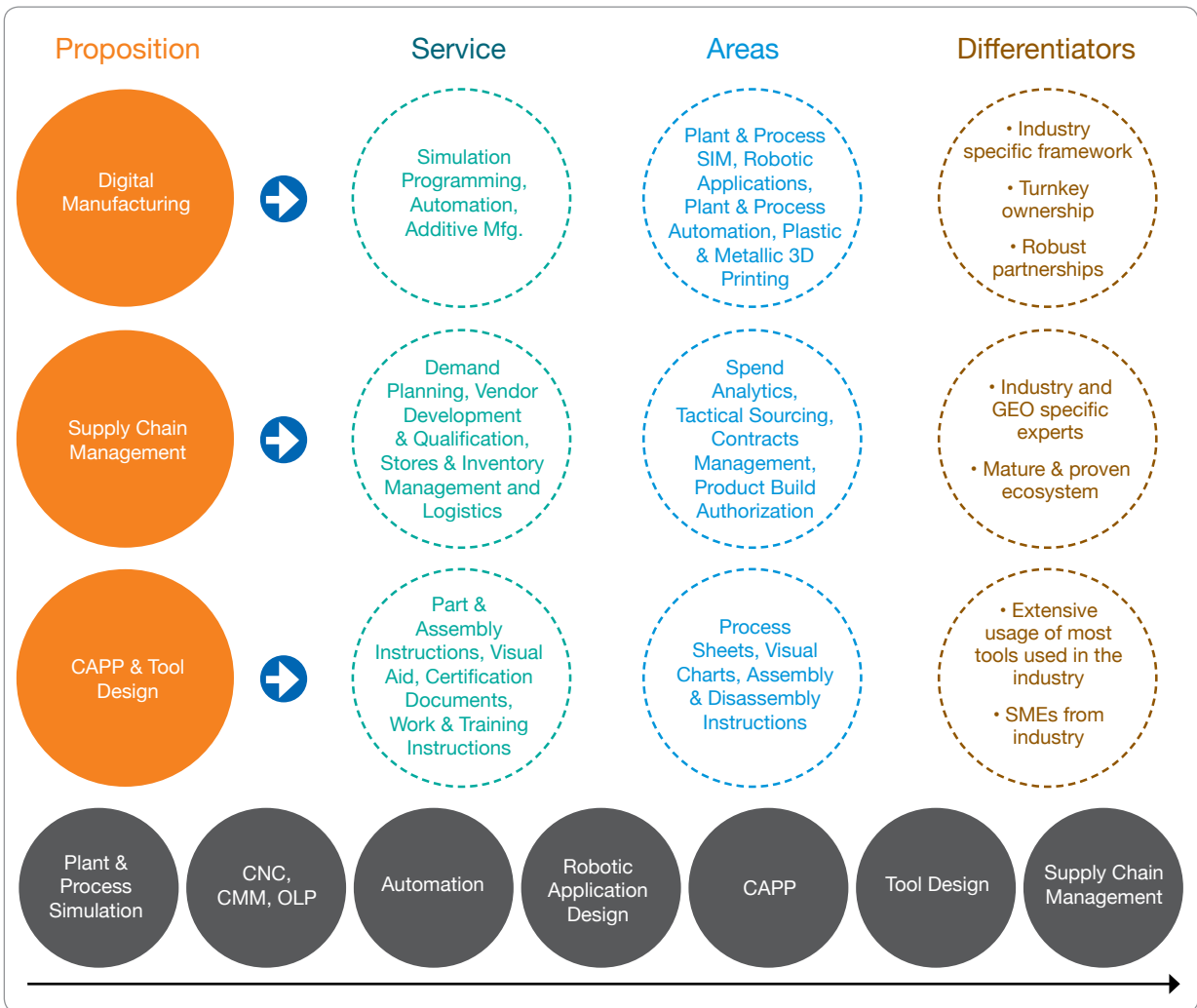
**MANUFACTURING
ENGINEERING
SERVICES**
BY HCL

Digital revolution is disrupting the manufacturing space across the globe with efforts like Industry 4.0, Make in India, Made in China 2025. Advancement in Automation, Artificial Intelligence, Additive Technology and IOT, demand the depth and width of capabilities to be realized in the Digital Manufacturing space. We help our customers to complement traditional manufacturing engineering services like Computer Aided Process Planning (CAPP), Tool design, Supply chain management with latest digital technologies around Simulation, Programming & Automation (SPA), Robotics, Visual Instructions and Additive Manufacturing.

MES PORTFOLIO



DETAILED SERVICE OFFERING



Digital Simulation

HCL Digital Simulation service is comprehensive proposition service, where we design, model, build and simulate the manufacturing facility for production schedule validation, bottle neck analysis, throughput analysis, station identification, process & material flow validation, robot & human process feasibility and deployment. We predominantly use Siemens Tecnomatix solutions & DELMIA from Dassault Systemes.

Plant Layout Engineering

We work on both brown field and green field project discrete manufacturing layout definition and detailing work. We use both 2D and 3D approach for visualizing or create a mock up. Extensive application of lean process for effective spacing, gangway and material routes, and ergonomics.

Process Engineering

We offer process design & simulation services to achieve process work flow definition and configuration. A detailed study of the product and manufacturing process by industry experts, and vendor facility. We have a dedicated team capable for doing Cost Engineering.

Programming

Our focus here is to deliver total machining solutions using most makes of CNC machines and compilers. We also provide tool path verification files for a error free machining programs. We also specialize in CMM programming and have delivered solutions based on our customer's specific needs. We have experienced industry consultants to code OLP (offline programming) for Robots.

Automation

Our manufacturing engineers are capable of optimizing the existing or new automation systems using 3D robotic work cell design using Process Simulate, Siemens Tecnomatix, RobExpert & Robcad. We study the customer requirement to develop and deliver concept solutions, automation system design & configuration. We work closely with our customers to implement and make quick changes to achieve an efficient line.

Additive manufacturing

We have a trained team of engineers who specialize in design for 3D printing. They are conversant with FDM, DMLS, DMD, SLM & PolyJet additive manufacturing technologies. We can also realize the product samples and can help manufacturing the parts through our strategic partners Stratasys & CMTI in Bangalore, India.

PROOF POINTS

Implementation of SAP ME for Medical Device OEM

Implemented SAP ME (Systems, Applications, Products - Manufacturing Execution) for one of the top medical devices company. Addressed functionalities such as Production, Quality, Inventory Management, Statistical Process Control, Time & Labour, Integration with Automated Testing Equipment, Integration with Siebel Customer Relationship Management

Offline NC Programming for Medical Device OEM

CNC programming for a Medical Device OEM. Created sheet metal NC programming for a 2 to 5 axis machining (Mill Turn and multi axis Turning Center). Performed Verification of Tool path till final CMM Inspection Stage.

Manufacturing Data Analytics Dashboard for Medical Device OEM

Manufacturing Data Analytics Dashboard for a leading of medical implants OEM. Enterprise dashboard with unified visibility on financial & plant level Key Performance Indicators. Solution connects key plant metrics with business KPIs and monitors them in real time. It provides multi-plant comparison dashboards along with detailed Root Cause Analysis.

Implementation of Camstar Manufacturing for Medical Device OEM

Implementation of Camstar Manufacturing – a Manufacturing Execution System (MES) for Production, Quality, Integration with Enterprise Resource Planning (ERP) and equipment, Installation Qualifications (IQ), Operational Qualifications (OQ), Performance Qualifications (PQ) for a medical Devices company.

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For more details please contact: ers.info@hcl.com



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HCL