

MVision

Enabling a customer-centric,
technology-driven enterprise



Manufacturing focus and trends

HCLTech, with its vision to pivot to operational excellence and customer eccentricity, focusses on the major trends. This encompasses everything from infrastructure modernization to building hyper-connected enterprises of the future.



Industry 4.0

- ▣ OT
- ▣ Transformation
- ▣ IIoT
- ▣ AI/ML
- ▣ Digital platforms
- ▣ Quantum computing



Factories of future

- ▣ Cognitive factories
- ▣ Smart warehouse
- ▣ Collaborative robots
- ▣ Augmented reality



Smart product

- ▣ After market services
- ▣ Connected customer
- ▣ Consumer scale experience



Capex/Opex

- ▣ Infrastructure modernization
- ▣ Enterprise as a service
- ▣ Platform as a service
- ▣ Service – driven economy



Layered networked architecture

- ▣ Fluid workplace services
- ▣ Adaptive OT cybersecurity
- ▣ WAN/LAN in a box
- ▣ Cloud first



New business models

- ▣ Emerging digital models
- ▣ Channels and ecosystems
- ▣ Digital twins
- ▣ Outcome – based contracts
- ▣ Function as a services

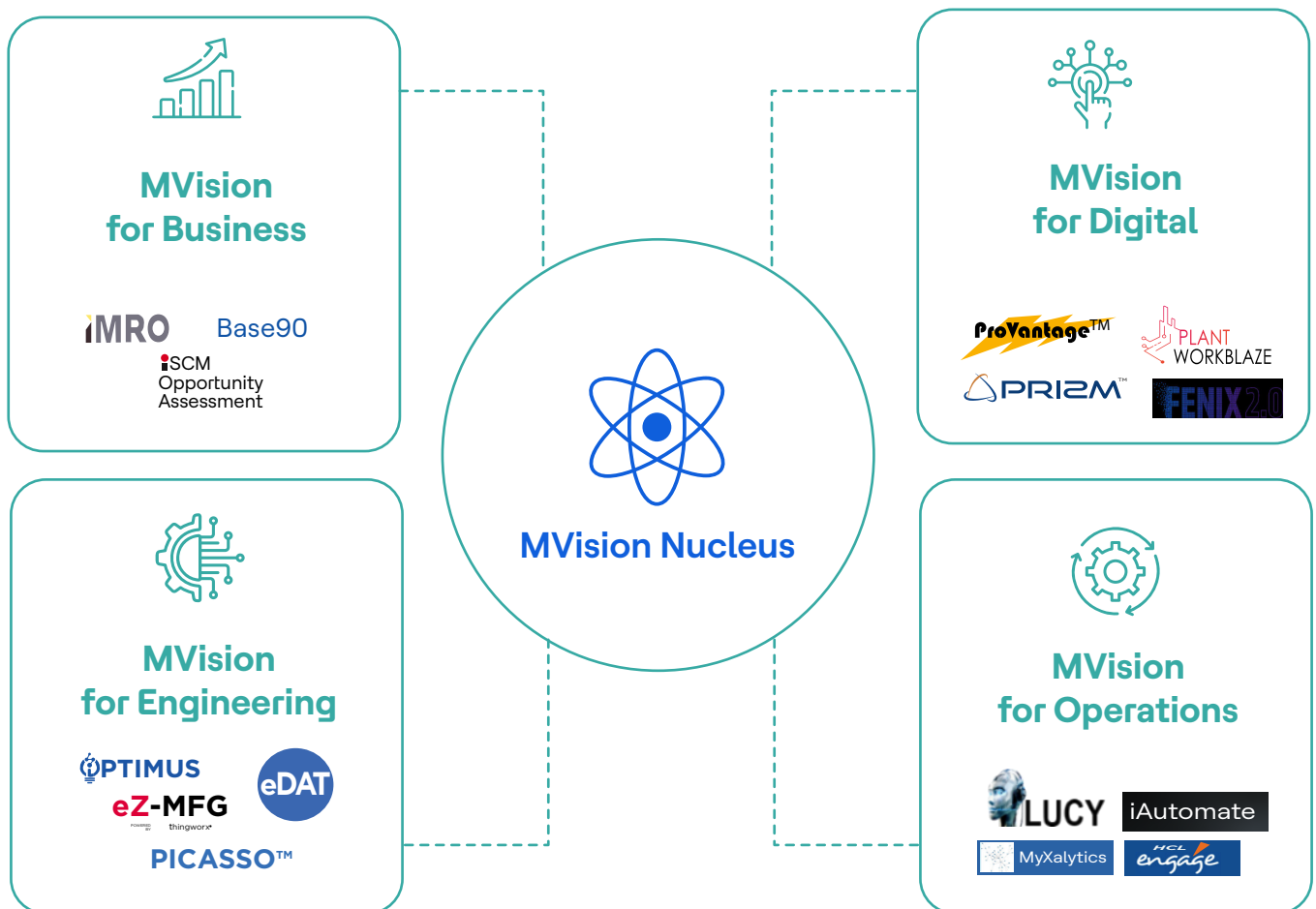
Business implications

- ▣ Factories of future
- ▣ Operational excellence
- ▣ Asset management
- ▣ Inventory management
- ▣ Supply chain resilience
- ▣ Supply chain optimization
- ▣ Greener technologies
- ▣ Yield/Energy/Waste
- ▣ Cost rationalization
- ▣ Optimized sourcing and sales
- ▣ Portfolio mix optimization
- ▣ Process transformation, automation

HCLTech MVision: Reimagine, innovate and transform

With over 40+ years of experience in managing manufacturing organizations across the globe, HCLTech helps customers transform their traditional business processes into next-generation enterprises geared for performance. HCLTech's MVision framework helps the manufacturing companies navigate the current dynamic landscape to deploy cutting-edge solutions that help innovate and ensure profitability by improving the bottom line and creating an avenue to increase the topline. HCLTech's MVision framework is built for organizations preparing for the future hyper-connected enterprises by helping them stay reimaged, resilient, reinvested, and resistant to embrace the future.

HCLTech MVision framework



MVision Nucleus powered by Industry 4.0

- ⊗ Additive Manufacturing (3D Printing)
- ⊗ Augmented Reality (AR)
- ⊗ Virtual Reality (VR) Simulations
- ⊗ Autonomous Robots
- ⊗ Big Data & Analytics
- ⊗ Cloud
- ⊗ Cybersecurity
- ⊗ Systems Integration
- ⊗ Industrial IOT



MVision for Business

We help our customers build customized strategies that drive operational transformation through new technologies, experience, operating models, and operations to drive growth. (We provide business strategy consulting for achieving lean operations excellence; Institutionalize change programs with a focus on productivity, competitiveness, innovation and customer-centricity; designs and implement impending cutting-edge technologies for organizations to become digitally ready from shop floor to the top floor; and cutting-edge enterprise solutions to rationalize, simplify & automate business processes with advisory & implementation services.)

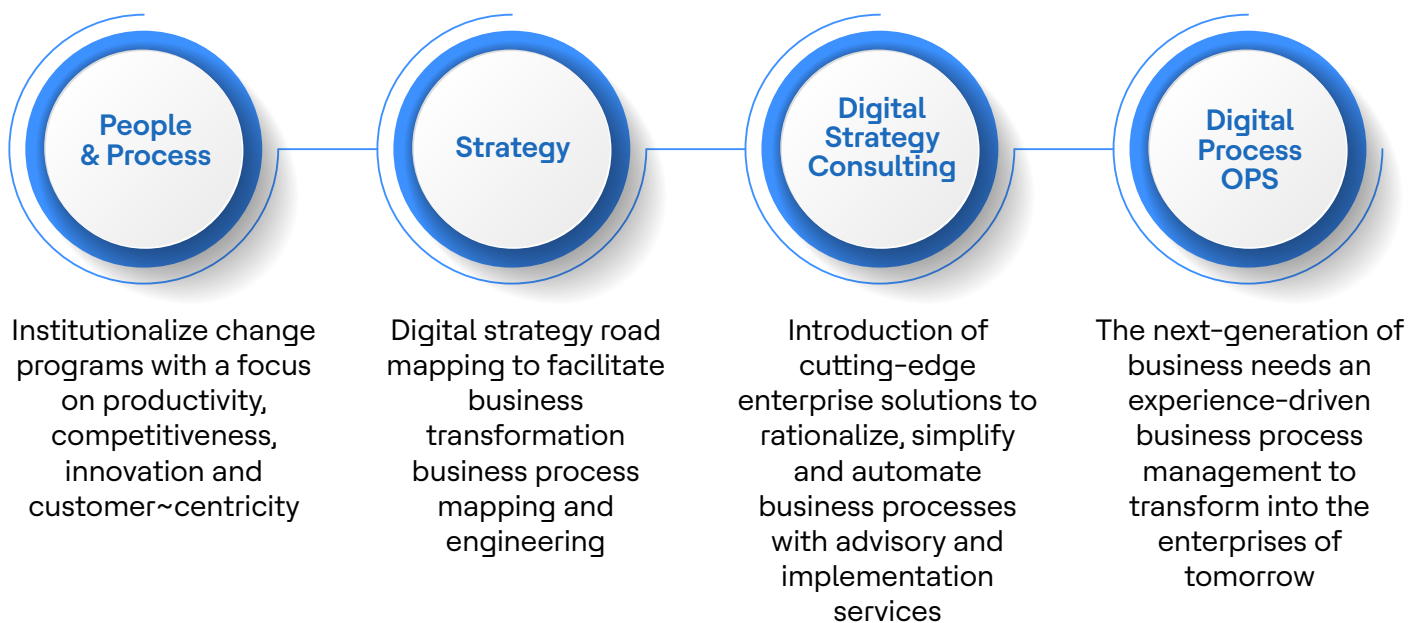
Case-in-point



Built a unified platform for a 5-modal transportation transformation roadmap for a multinational food processing and commodities trading organization.



Enabled a new revenue model for a multinational company pioneer in office technology with a co-innovation-driven office refreshment solution.



MVision for Business



People, process and culture

Change management

Continuous audit of process

Agile/DevOps culture



Business consulting

Business process strategy

Operational excellence

Business strategy



Digital process operations

Business process orchestration

Business process optimization

Business process innovation



Digital strategy consulting

Digital strategy

Cloud & AS models

Data & analytics





MVision for Digital

The next-gen digital consulting approach focuses on making the manufacturing organization insight-driven and customer-centric by defining digital strategy and roadmap, adapting and responding to security risks, managing, monitoring, and controlling digital initiatives, and providing assessment review programs. and health checks.

Technology consulting core services



Case-in-point



Developed a unified dealer and distribution B2B2C platform for real-time visibility of procurement, sales warranty and claims for a multinational corporation that designs, manufactures, and distributes engines, filtration, and power generation.



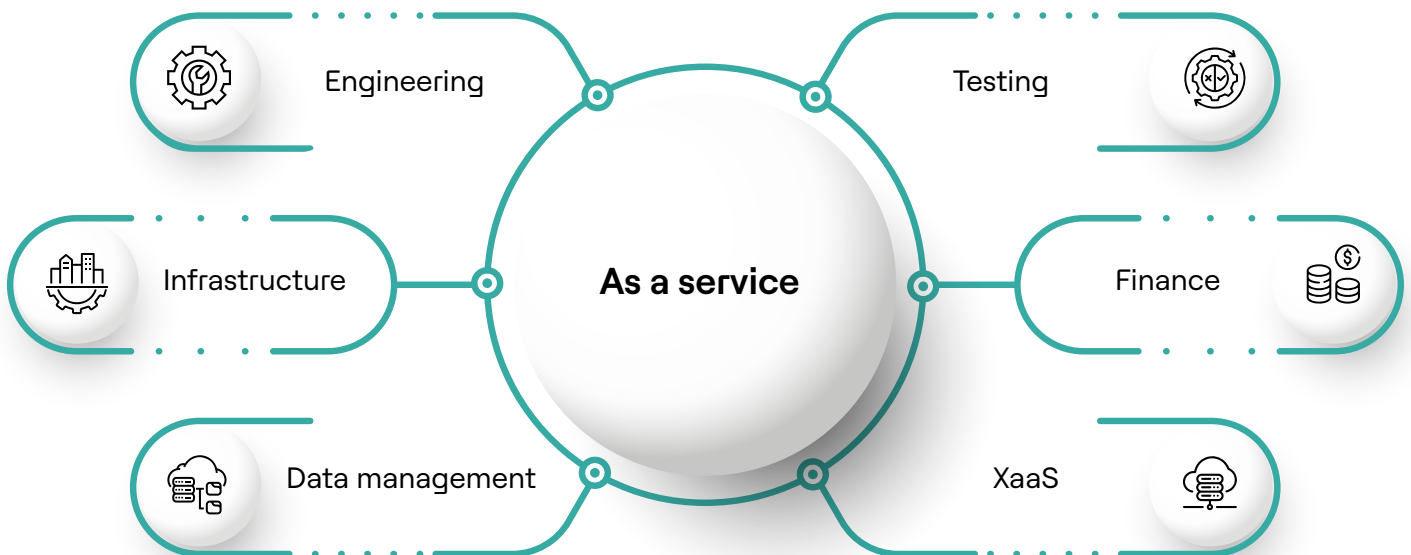
Enabled enterprise-wide cloud migration and agile DevSecOps adoption at scale for a global manufacturer and distributor of chemical products and a leading U.S. manufacturer of ammunition



MVision for Operations

We help customers automate business and IT processes through robotic process automation and catalog-based technologies. This creates as models to reduce operating costs and enhance quality management. Building on the MVision Nucleus approach, we focus on modernization and help the clients build an "as a service"- based IT consumption and application portfolio, to reduce cost and become more lean and agile on IT. We strive for continuous improvement and deliver predictive operations through extreme application automation by implementing end to end observability and AI driven decision making using our "iONA" framework.

Product culture



Case-in-point



Integrated operating model focusing on scaled digital operations across applications infrastructure and engineering services for leading global manufacturer of industrial tools and household hardware and provider of security products

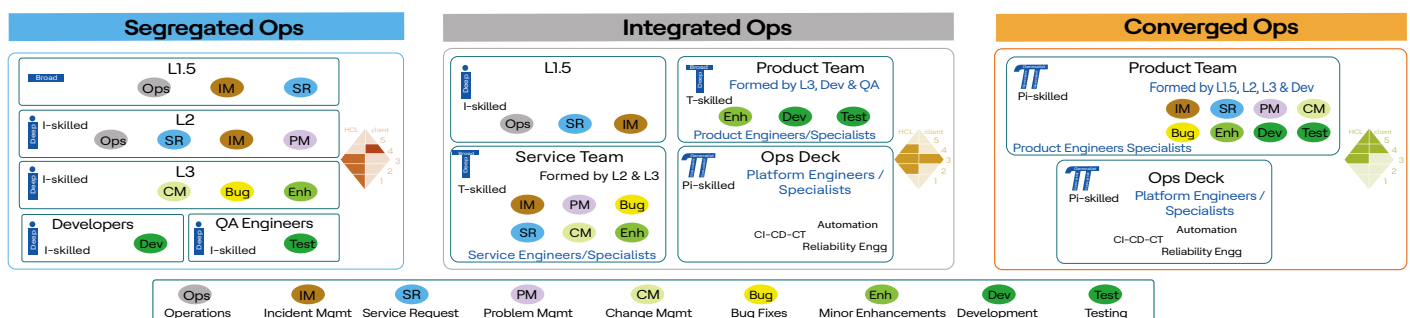


Caterpillar - Integrated heterogeneous systems across dealers using various payment system models for a Fortune 100 construction equipment manufacturer

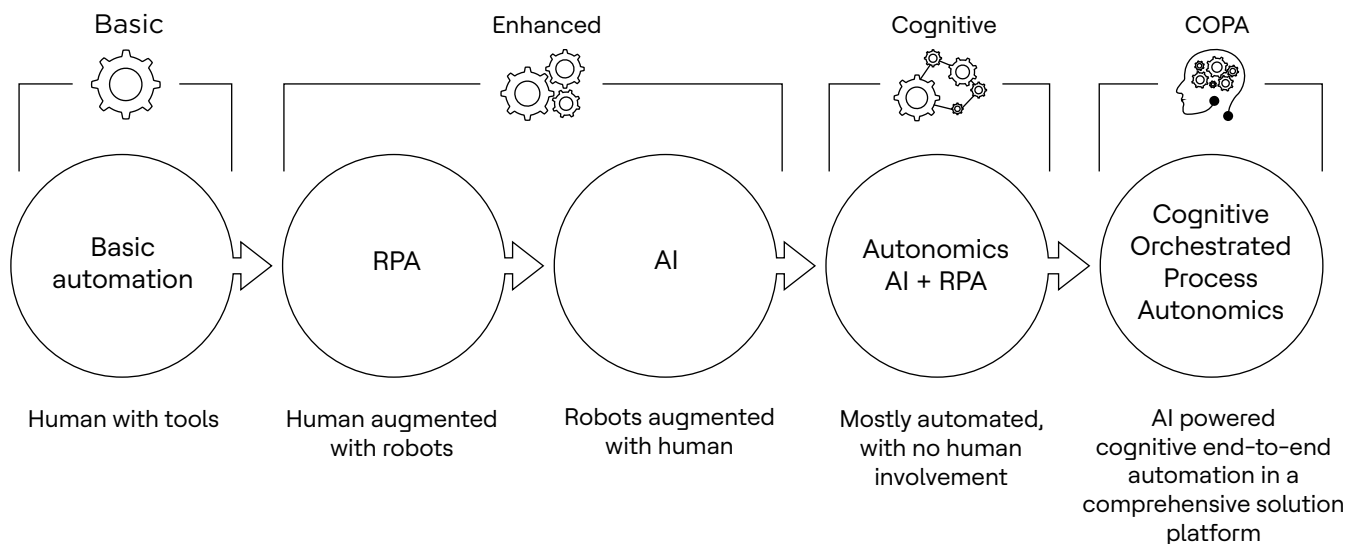
ASM 2.0 – Next-gen integrated operating model

iONA Smart Operations Platform

OpsDeck-SRE based Ops	Observe2Act	Operating model	Context-aware Ops
Platform operations and common service support team	Insights-driven automation powered by AI	Team alignment to business function Operating model based on pace portfolio change Converged build and run teams	Business aware Ops with a collaboration-based approach



Automation & shift left



AppOps efficiency through run advisor offerings like 3R analyzer and shift left opportunities derived from focused automation



Lucy

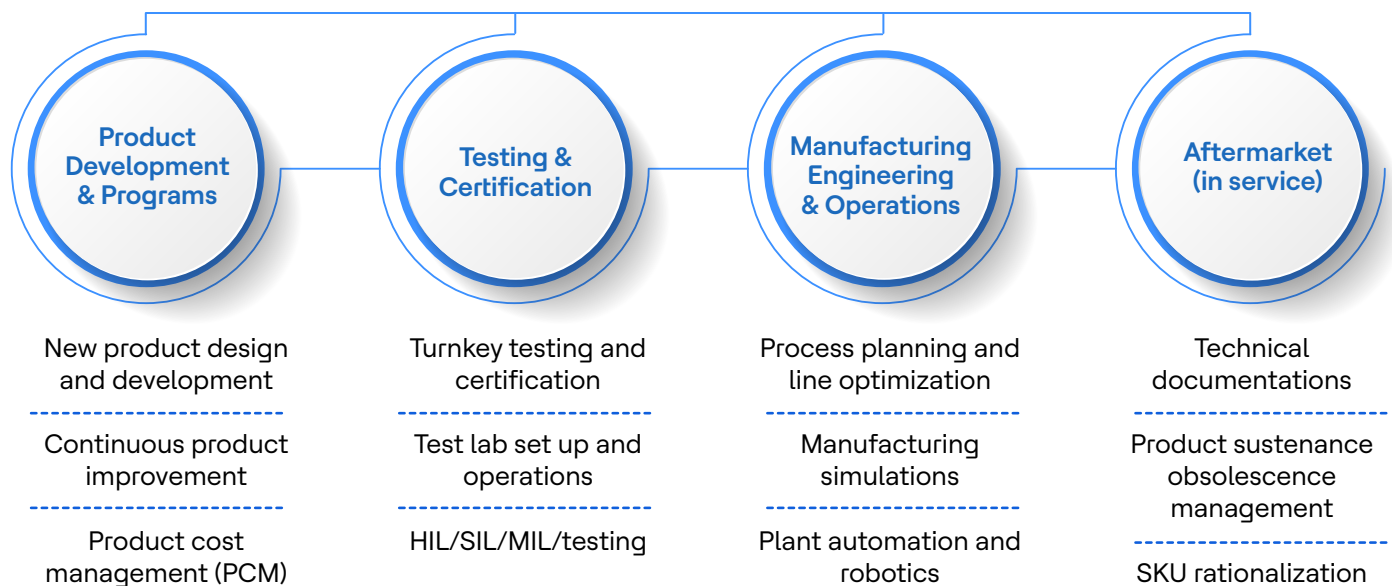
iAutomate



MVision for Engineering

As global manufacturing organizations adopt digital practices and trends across businesses and divisions, we understand the importance of product engineering and R&D, IoT, and therefore industry 4.0 becomes a necessity to our customers. Our strength lies in product engineering and R&D, leveraging offshore R&D centers for agility and scale. We help our customers accelerate product development by leveraging the latest technologies, monetizing product services, and providing immersive customer experiences. We also help customers hyper automate operations in design, manufacturing, supply chain, and aftermarket with a vision for autonomous factories and a connected ecosystem.

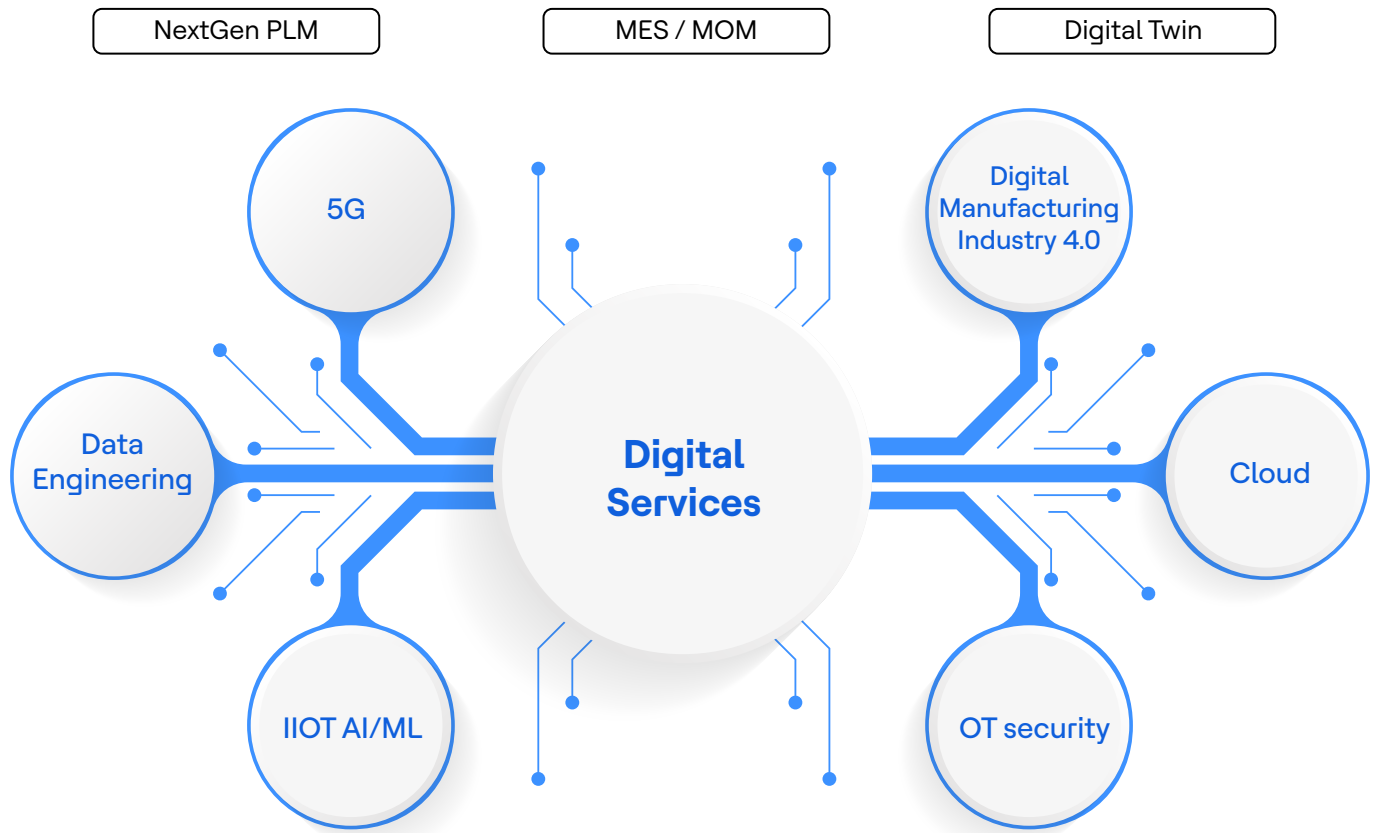
HCLTech Engineering Services



Center of excellence

- ➔ CAE
- ➔ Industrial design
- ➔ Power Electronics
- ➔ Control engineering
- ➔ Model-based design
- ➔ Cloud
- ➔ Mobility
- ➔ Reliability
- ➔ UI/UX
- ➔ Cybersecurity

Operations technologies



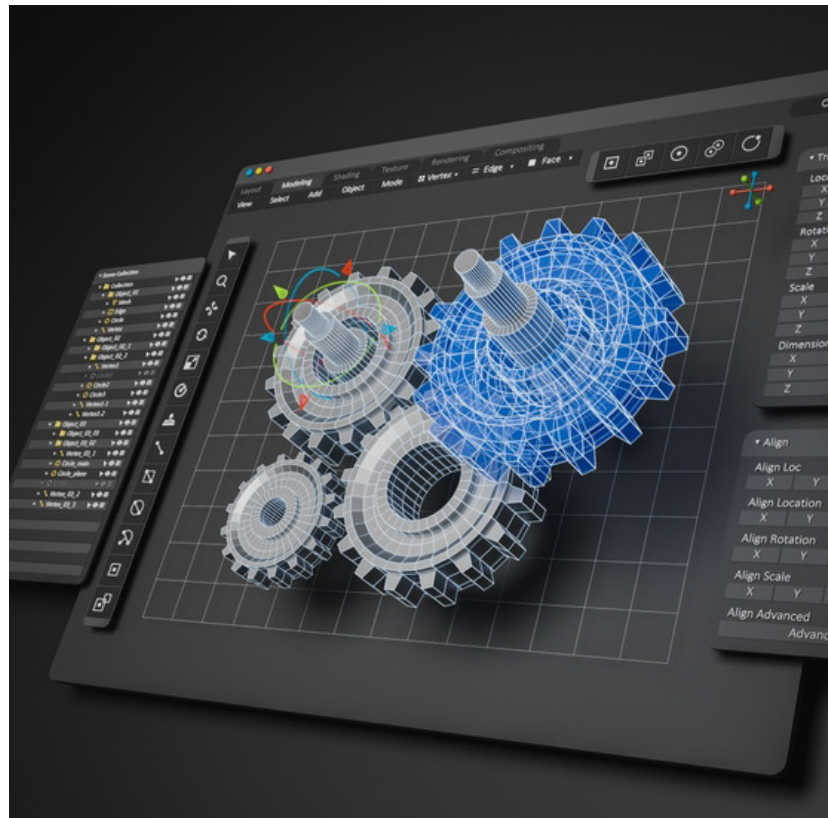
Case-in-point



IoT-based preventive maintenance solution to ensure optimal utilization of assets for an American multinational home appliances corporation







Designed and developed innovative product solutions to improve aesthetics, functionality and cost of floor category products for a leading global appliance company








MVision Nucleus: Powered by Industry 4.0

Our MVision nucleus is built to empower manufacturing customers to benefit from unprecedented levels of digital adoption for scaling effectively to become a data-driven and insightful organization. By leveraging accelerated services across various technologies and solutions, MVision nucleus helps customers align to industry 4.0 adoption. The MVision nucleus through our automation, AR/VR, and other smart solutions, including IT/OT integration and UX/UI services, helps manufacturing customers change their traditional landscapes.

-  Autonomous Robotics 3D printing
-  Cyber security
-  Simulation augmented reality
-  Cloud

-  Horizontal integration
-  Big data analytics
-  Industrial internet

Automate order fulfillment, inventory movements, and supplier/factory orders activity based on predictive maintenance and utilization

Improve customer management through real-time analytics, and deploy new business models that increase value capture

Improve efficiency through smart metering of utilization with smart, collaborative work spaces

Leverage digital technologies to increase asset utilization, predict maintenance and enhance manufacturing processes

Utilize embedded systems, sensors, and telematics to monitor and maintain products in the field

Enhance product design using digital twin technologies; improve the use of test cells, through IoT remote monitoring



Smart supply chain

- ⊞ Cognitive supply chain twin/SC twin
Track and trace for products/
RTLS smart warehouse solution
Cold chain tracking
- ⊞ Distributed ledger
- ⊞ Container tracking
- ⊞ Smart edge/Edge Cloud/Private cloud Platform as a service
- ⊞ Sensors
- ⊞ Data



Smart products

- ⊞ Predictive quality
- ⊞ Asset tracking
- ⊞ Smart edge/edge
- ⊞ Data collection and analytics
- ⊞ Sensors
- ⊞ Digital twin/thread



Smart experiences

- ⊞ AR/VR
- ⊞ Asset performance management
- ⊞ SIO
- ⊞ Data collection & Analytics
- ⊞ IMRO
- ⊞ Fleet T&T
- ⊞ DPHM
- ⊞ MRO tracking
- ⊞ Product smart edge/Edge
- ⊞ Cloud/Private cloud



Smart services

- ⊞ SIO
- ⊞ Data collection/analytics
- ⊞ Distributed ledger
- ⊞ Asset performance management
- ⊞ XR
- ⊞ DECoDe



Smart workforce

- ⊞ AR/VR
- ⊞ Worker safety
- ⊞ IoT enabled S&OP
- ⊞ Digital thread
- ⊞ Plant workBlaze
- ⊞ DECoDe
- ⊞ ZIP
- ⊞ Analytics factory
- ⊞ Smart edge/Edge
- ⊞ Cloud/Private Cloud
- ⊞ Platform as a Service
- ⊞ IT/OT Convergence & Management
- ⊞ Sensors
- ⊞ Data Collection/Analytics



Smart manufacturing

- ⊞ AR/VR, RMI, PdM / PdQ
- ⊞ Digital twin/Thread, Asset tracking, WIP tracking
- ⊞ Smart production system
- ⊞ ZIP, Smart edge/Edge
- ⊞ Cloud/Private cloud, IT/OT convergence & management
- ⊞ Sensors, Data collection/Analytics

Case-in-point



Improved plant efficiency, shop floor visibility, and TCO by deploying industry 4.0 and digital manufacturing solutions for a leading American beverage brewing system manufacturer



Provided blockchain and IoT solutions to solve business problems, including pilferage, audit issues, and processing transactions for a Swiss multinational plant equipment manufacturer

HCLTech | Supercharging Progress™

HCLTech is a global technology company, home to 211,000+ people across 52 countries, delivering industry-leading capabilities centered around Digital, Engineering and Cloud powered by a broad portfolio of technology services and software. The company generated consolidated revenues of \$11.79 billion over the 12 months ended June 30, 2022. To learn how we can supercharge progress for you, visit hcltech.com.

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