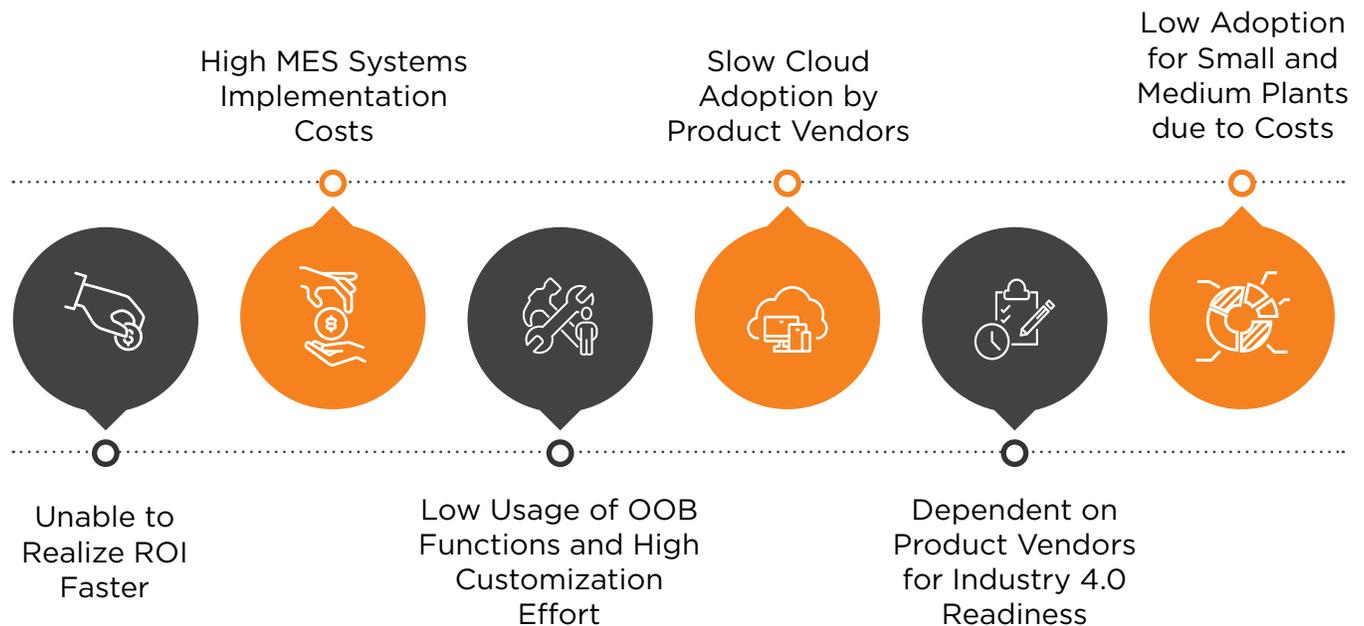# eZ-MFG

Manufacturing execution simplified (MES)

#CPGbyHCL

Manufacturing execution simplified

Today, CPG enterprises are looking at ways to build greater agility, responsiveness, and resilience into their manufacturing capacity and integrated supply chains. Owing to numerous challenges posed by COTS solutions, leveraging Industrial Internet of Things -IIoT (an important aspect of Industry 4.0), can help companies gain a competitive advantage and emerge with stronger resilience.

Current challenges with mainstream MES/MOM systems

High MES Systems Implementation Costs

Slow Cloud Adoption by Product Vendors

Low Adoption for Small and Medium Plants due to Costs

Unable to Realize ROI Faster

Low Usage of OOB Functions and High Customization Effort

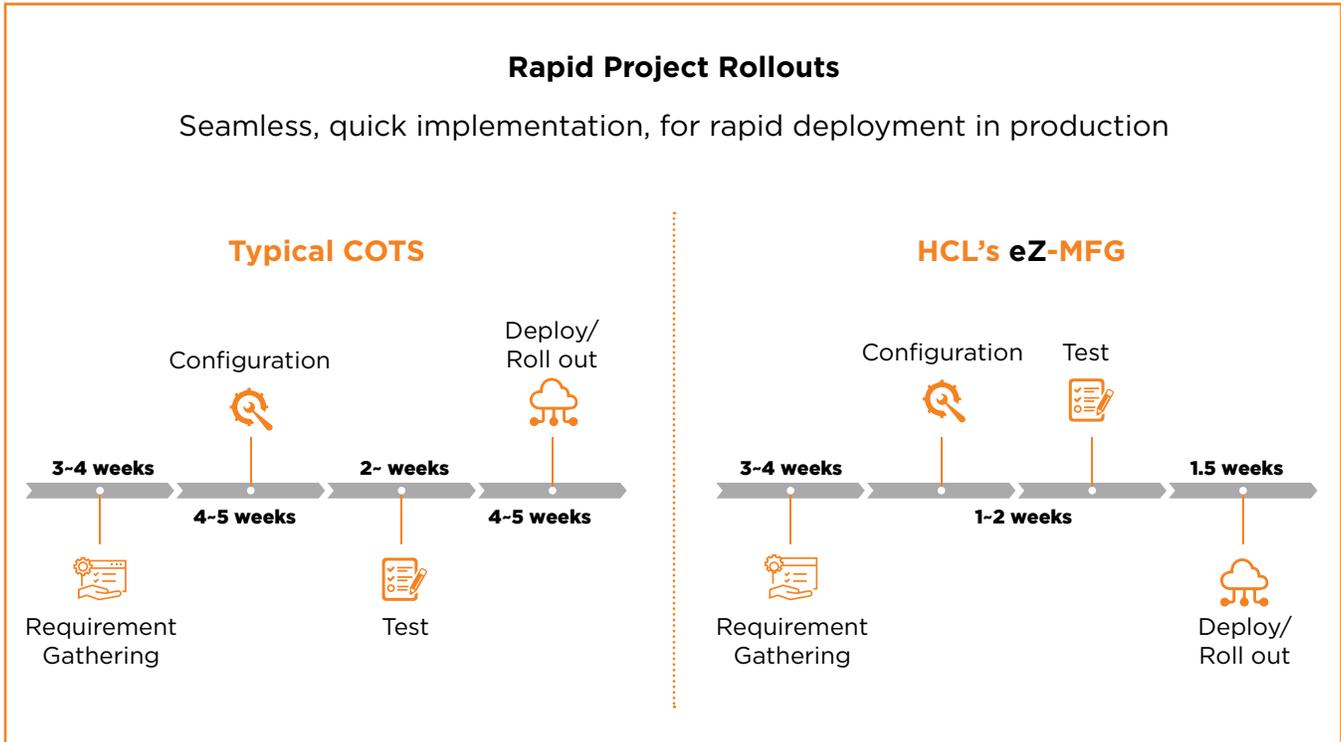Dependent on Product Vendors for Industry 4.0 Readiness

COTS solution limitations/complexities

- Complex and prolonged deployment model

- Solution and license cost becomes expensive in the long run

- Difficult to customize to customers or market-specific needs

- Require investment in a fully loaded MES feature package, whereas customers use only key features

- Frequent mandatory upgrades adding operational overheads and resulting in a poor business case

- Increased cost of ownership

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HCL eZ-MFG

Powered by PTC Thingworx and launched by HCL's Industry 4.0 Digital Manufacturing Practice, eZ-MFG is a ready-to-use, cost-effective, easy customizable, fast deployable, Lite MES solution. It supports agile manufacturing and integrated supply chains, enabling customers to achieve their production and operational goals with rapid returns on investment.

Rapid Project Rollouts

Seamless, quick implementation, for rapid deployment in production

Typical COTS

Configuration

Deploy/ Roll out

3~4 weeks   **2~ weeks**

4~5 weeks   **4~5 weeks**

Requirement Gathering

Test

HCL's eZ-MFG

Configuration   Test

3~4 weeks   **1.5 weeks**

1~2 weeks

Requirement Gathering

Deploy/ Roll out

eZ Tracking of manufacturing and performance KPIs

eZ identification of process steps/routing by serialization and image

eZ to know manufacturing asset utilization

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Connected Enterprise

Scalable across multiple plants as based on the PTC ThingWorx IIoT Platform

Easy Configure and Customize

Extensibility with production modeling based on the PTC ThingWorx Thing model

Personalized User Experience

Enabling remote monitoring and personalized dashboards for different user personas.

eZ-MFG ARCHITECTURE

eZ-MFG SOLUTION FEATURES

REPORTS AND DASHBOARDS
Visibility of Production Performance, WIP Tracking Production and Process Summary Reports

Production Order Integration > Production Order Spliting

Work Order Routing > Work Order Scheduling > Work Order Release

Part Picking And Kitting > Work Order Execution > Production Posting

Production Tracking > Trecebility & Geneology > Shop Floor Integration

External System Integration > Analytics > PTC Thingworks Manufacturing Apps

ENTERPRISES

API Based data Collection Atomatic

Excel File Semi-Automatic

Web/Mobile App Manual

Integration with Enterprises Systems (ERP)

MANUFACTURING SHOP FLOOR

IIoT, OPC, IND, Gatway, Custom Interface Atomatic

Integration with control Systems and OEM Systems

WEB/MOBILE APP USER

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Low Cost of Ownership

Manufacturing Integration

- Native OPC DA/UA connectivity
- Native custom interface through SDKs and APIs

Third-Party Licenses

- 100% based on PTC ThingWorx Ni hidden cost

Software

- Modular functionality
- Pay only for the features to use
- Scalable pricing based on module size

Hardware

- Scalable hardware based on the need from a single server to full-fledged, fault-tolerant, high-availability configuration
- Save on physical harware with cloud hosting

Administration

- Powerful admin configuration GUI
- Helps central decision-making
- Industry 4.0: IIoT adoption
- Less dependencies on multiple roles

Industry 4.0: IIoT Adoption

- Leverage one of the world's best foundation IIoT platforms
- MQTT enabled for larger connectivity with "different" assets

Usability

- Lower training time for the user
- Personified user enforcement from handled devices
- Quick action within no time
- Improved productivity

For more information write to us at **rcpg.solutions@hcl.com**
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HCL

HCL Technologies (HCL) empowers global enterprises with technology for the next decade today. HCL's Mode 1-2-3 strategy, through its deep-domain industry expertise, customer-centricity and entrepreneurial culture of ideapreneurship™ enables businesses to transform into next-gen enterprises.

HCL offers its services and products through three lines of business - IT and Business Services (ITBS), Engineering and R&D Services (ERS), and Products & Platforms (P&P). ITBS enables global enterprises to transform their businesses through offerings in areas of Applications, Infrastructure, Digital Process Operations, and next generation digital transformation solutions. ERS offers engineering services and solutions in all aspects of product development and platform engineering while under P&P. HCL provides modernized software products to global clients for their technology and industry specific requirements. Through its cutting-edge co-innovation labs, global delivery capabilities, and broad global network, HCL delivers holistic services in various industry verticals, categorized under Financial Services, Manufacturing, Technology & Services, Telecom & Media, Retail & CPG, Life Sciences, and Healthcare and Public Services.

As a leading global technology company, HCL takes pride in its diversity, social responsibility, sustainability, and education initiatives. As of 12 months ending on March 31, 2021, HCL has a consolidated revenue of US$ 10.17 billion and its 168,977 ideapreneurs operate out of 50 countries. For more information, visit www.hcltech.com

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