

Intelligent Factory Floor Assist Solution

Powered by Gemini Enterprise and HCLTech custom AI agent

Introduction

Manufacturers today work with disconnected systems, data silos and reactive processes. Information sits across multiple platforms, limiting visibility and slowing decision-making on the factory floor. Teams often spend valuable time searching for information instead of acting on it, leading to inefficiencies and delayed responses.

To stay competitive, organizations need to move beyond fragmented operations and adopt an intelligent, connected approach. The Intelligent Factory Floor Solution enables this shift by transforming factory environments into a unified, AI-driven ecosystem that delivers real-time intelligence, automation and role-based insights across operations.

Solution overview

The Intelligent Factory Floor Assist is a unified solution that converts isolated, reactive systems into a cohesive, proactive operation. Powered by Google Gemini Enterprise, the root agent acts as a central orchestrator to drive sophisticated, agentic workflows across production and support functions. By integrating siloed data from ERP, Confluence, ServiceNow, SharePoint, etc., the solution leverages specialized custom agents developed by HCLTech to automate complex manual tasks. These include the Workforce Acquisition Agent for talent scaling, the Worker Safety Agent for risk mitigation and the Factory Operator Assist for real-time guidance.



Key features

- **Unified intelligence**

Connects to enterprise systems and knowledge repositories to break down data silos, creating a single source of truth for factory floor operations

- **Persona-based dashboard**

Provides role-specific views and tools for operators, managers and support teams, enabling context-aware access to insights, agents and workflows

- **AI-driven agentic ecosystem**

Uses specialized AI agents orchestrated by Gemini Enterprise to automate tasks, retrieve information and support operational decisions

- **Enterprise search and retrieval across documents**

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Business outcomes



45–50% improvement in visibility and coordination

Reduce system fragmentation by connecting previously disconnected systems into a cohesive ecosystem, improving visibility and coordination.



30% faster responses on the factory floor

Accelerate responses on the factory floor through proactive insights and intelligent recommendations that enable faster, more informed decisions.



25% potential improvement in productivity

Enhance productivity across roles by empowering operators, managers and support teams with context-aware tools that improve individual performance.



Improved operational efficiency

Reduces time spent searching for information by providing unified, role-based access to data and intelligence.



Future-ready manufacturing platform

Offers a scalable and modular foundation that evolves with business needs, enabling continuous innovation and intelligent automation.



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