

Deloitte.

Accessing skilled human capital for the smart manufacturing era

Deloitte's Smart Manufacturing Operate offering enhances and augments your operational and technical workforce to fuel productivity, agility, and smart manufacturing transformation.



In this technology-enabled era, manufacturers face growing pressure to differentiate on speed and cost as competitors up their investments in technology and smart manufacturing capabilities. Yet, one of the most significant hurdles to a successful smart manufacturing transformation is not the technology; it's the lack of access to the right people.

Deloitte and The Manufacturing Institute found that there could be as many as 3.8 million net new employees needed in manufacturing between 2024 and 2033, and that around half of these jobs (1.9 million) could remain unfilled.¹ It's a challenge to find high-skilled talent not only at that massive number but also to work in certain locations. And even as manufacturers strive to grow their workforce, they must also invest in upskilling existing employees whose capacity for new work and training is already likely constrained.

Every manufacturer—and indeed every plant—is different, facing its own unique set of legacy technologies, processes around “how it has always been done,” and a vision for the art of the possible. The human capital challenge for manufacturers is to ensure that the right people with the necessary skills are in the right location when they are needed, and for some enterprises, the surest path forward in smart manufacturing is with a global network of manufacturing and technology professionals.

Your trusted colleagues in smart manufacturing

Deloitte's Smart Manufacturing Operate offering helps you close the skilled human capital gap by supplementing your knowledgeable workforce with our own—in ways tailored to your enterprise needs on your smart manufacturing journey.

With Deloitte, your employees can focus on production and resilience while we deliver the blend of technical and functional skills on demand to help you solve the toughest problems. Whether you are already on your smart manufacturing transformation journey or just getting started, Deloitte can help amplify your efforts, letting your workforce do what they do best while we focus on augmenting their capabilities, transferring knowledge, and delivering outcomes.

With our assets, accelerators, intellectual property, and an ecosystem of partners, we bring knowledge from other industries, market intelligence from around the corner, and a focus on innovation and growth that meets your enterprise vision.

Our Operate offering includes:



Manufacturing Technology Managed Services.

We can help you manage, maintain, and operate smart manufacturing infrastructure and applications. This includes managed services around manufacturing applications, process workflows, cloud infrastructure, cybersecurity and edge devices, and onsite operational technology. The result is a greater capacity to scale IT/OT convergence, respond confidently and rapidly to emerging needs and constraints, reduce operating costs through greater efficiency and uptime, and drive innovation without the need for significant capital investments in hardware, software, or talent.



Smart Manufacturing Foundry.

Deloitte's dedicated smart manufacturing professionals bring to bear hardened assets that can help your plants maximize flexibility and agility alongside capacity. Your staff focuses on production while we deliver manufacturing analytics and insights, application development, factory workforce management, and cyber managed services to secure your technology ecosystem. With this, you realize the capacity to rapidly activate new digital ventures by immediately accessing technology resources that might otherwise be out of reach, prohibitively expensive, or too complex to operationalize in-house.



Smart Manufacturing-as-a-Service.


To supercharge and accelerate your transformation, Deloitte offers value-driving services that can deliver cross-factory improvement actions based on real-time insights and analytics. With smart manufacturing foundations, monitoring, and continuous integration as a service, you can rely on Deloitte to help integrate technology into your daily operating processes, quantify the business outcomes, and optimize your capabilities for continuous improvement.





Effectively manage and sustain your manufacturing operations. Our industry professionals bring methodologies and assets that have been hardened through years of delivering business results and bolstered with the latest in AI, Generative AI, and edge computing capabilities.

As more manufacturers make investments in smart manufacturing, new greenfield builds, or updated brownfield sites, the imperative to transform has never been clearer. To get moving and stay ahead, you can access our technology and manufacturing expertise much faster and more cost-effectively than making resource and time investments to upskill your human capital in-house. We can give you the human capital capacity you need today to accelerate your smart manufacturing transformation.



Expanding workforce capacity to drive transformation



A global aluminum manufacturer sought to leverage a computer vision collision avoidance system that provides real-time alerts and risk predictions to enhance operational safety in a plant environment. While the technology was available, the manufacturer contended with limited high-skilled human capital capacity needed to sustain the computer vision model and the enabling hardware. The manufacturer turned to Deloitte's **Manufacturing Technology Managed Services** offering to supplement capacity by providing model and hardware support and maintenance for the computer vision application; strategies and processes to address model and hardware sustainment capacity and skill set longer term; and a scalable approach to managed services across models, devices, and plants. As a result, the manufacturer was able to access a workplace safety solution that enabled greater safety and risk mitigation without straining the existing workforce.



A large cabinet manufacturer recognized opportunities for transformational change in quality management and performance visibility. Yet, while a vision for the possible was compelling, the manufacturer struggled with pilot projects that were difficult to scale and lacked the necessary support. What is more, a lack of process definition, supporting systems, and automation led to excess labor hours and quality escapes that undercut value and results. With Deloitte's **Smart Manufacturing Foundry** offering, the manufacturer leveraged Deloitte's flexible capacity to build and deliver visualizations at scale. Deloitte worked with the company to develop and manage a triage process for data visualization needs, and we also identified data gaps and recommended prioritized data sources to enable new visualizations and insights.



An electrical equipment manufacturer was seeking a flexible and scalable way to increase production. Deloitte helped the company identify how improving the employee experience, labor efficiency, process improvements, and a better deployment of technology could support production targets. The manufacturer turned to Deloitte's **Smart Manufacturing-as-a-Service** offering to address production challenges. We embedded our smart manufacturing platform into routine management practices. With greater data visibility across the plant, users were empowered to make data-driven decisions, and we partnered with operations to help action insights for increased throughput and efficiency.

Why Deloitte?

Industry leaders with global capacity

With more than 2,000 dedicated smart manufacturing practitioners globally, Deloitte operates worldwide providing consummate human capital consultancy and manufacturing expertise to your entire plant network, wherever it's located.

Solutions to align smart manufacturing operations with business strategy

By virtue of our experience and domain expertise, we can pull many creative levers across risk, cybersecurity, tax, supply chain, and procurement, drawing on our deep industry knowledge to align smart manufacturing operations with the broader enterprise strategy.

Forging the way with analytics and cognitive tools

We operate on the bleeding edge of artificial intelligence (AI) and data analytics, accessing the full value in your operational data to drive continuous improvement and anticipate tomorrow's issues before they arise. Unlock the untapped potential of data and harness the power of Generative AI with IntelligentOps™, a seamless integration point between people and technology to optimize operations.

Masters of knowledge transfer and upskilling

Across projects in every industry for some of the largest enterprises in the world, we are known for our ability to encourage technology adoption. With Deloitte's skilled human capital and assets embedded in processes and day-to-day operations, we help transfer the knowledge and skills employees need to thrive in a transformed technology ecosystem.

Respected and trusted among an ecosystem of partners

Deloitte holds a preferred status with dozens of the most innovative and impactful technology platforms and assets, which allows us to select and shape the right solutions for your endeavor.

Deloitte's global Smart Factory network

Seeing is believing. We help you create a vision for the possible by offering access to our state-of-the-art Smart Factory network. Our flagship is The Smart Factory by Deloitte @ Wichita in Kansas, which is networked with additional facilities in Dusseldorf, Germany; Tokyo, Japan; and Montreal, Canada. Learn more at www.thesmartfactory.io.

Deloitte: A trusted leader in smart manufacturing operations

Deloitte has been recognized as a Visionary in the 2023 Gartner® Magic Quadrant™ for Data Center Outsourcing and Hybrid Infrastructure Managed Services, Worldwide.

Source: Magic Quadrant for Data Center Outsourcing and Hybrid Infrastructure Managed Services, Worldwide, By DD Mishra, Biswajit Maity, Karl Rosander, Andrew Miljanovski, Published 27 June 2023 - ID G00774657.

Deloitte was recognized as one of the world's best outsourcing advisors in The 2023 Global Outsourcing 100®.

Source: International Association of Outsourcing Professionals® (IAOP).

Deloitte has been recognized as a Leader in the IDC MarketScape: Worldwide Artificial Intelligence (AI) Services 2023 Vendor Assessment for the third time

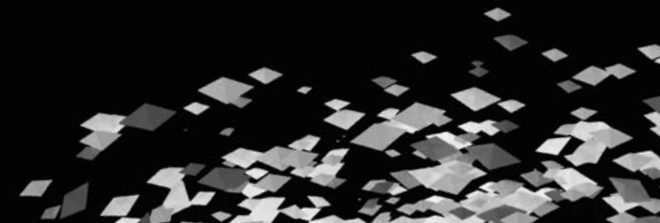
Source: IDC MarketScape: Worldwide Artificial Intelligence Services 2023 Vendor Assessment, by: Jennifer Hamel, May 2023, IDC #US49647023e

Deloitte is named a Leader in the inaugural Software Engineering Services 2023 Vendor Assessment by IDC

IDC MarketScape: Worldwide Software Engineering Services 2023 Vendor Assessment, by: Mukesh Dialani, November 2023, IDC #US51330523

Endnotes

John Coykendall, et. al, Deloitte and The Manufacturing Institute Talent study, Deloitte Insights, April 3, 2024.





Ready to get started?

Please reach out to learn more about how Deloitte's Smart Manufacturing Operate offering can help bridge skill gaps and uncover new ways of working in this new era of smart manufacturing.

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