

Industrial Intelligence: Manufacturing Industry Insights

When **understanding** becomes **agility**

After more than 18 months of contraction, the global manufacturing industry is accelerating at its fastest pace since June 2022.¹ Four years since the COVID-19 pandemic disrupted supply chains overnight, operating conditions still have not fully recovered, and manufacturers continue to face challenges outside the factory walls.

Talent shortages, supply chain issues, and mounting pressure to achieve a net-zero future all weigh heavily on the industry as it navigates familiar problems such as budget constraints, economic uncertainty and rising costs. In a commissioned survey conducted by Wakefield Research of 500 executives at industrial companies in North America, Europe, Middle East and Australia with at least \$50M USD in annual revenue, including 139 executives in manufacturing, we found over half citing siloed data and nearly half citing challenges with real-time collaboration as a major inhibitor to manufacturing efficiency.²

When insight becomes impact

The need:



52%

52% of manufacturing executives cited budget constraints as a significant hurdle for their organization this year.



58%

58% reported a need for new technology to empower their workforce as a top challenge for 2024.



45%

45% of executives feel pressure to accelerate decarbonization efforts.



46%

46% cite speed of regulation as a barrier to decarbonization and sustainability, making it difficult to keep ahead of requirements.



93%

93% agree their organization will never accelerate their sustainability agenda unless they can harness the power of digital technologies.



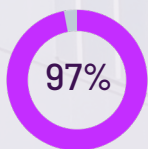
53%

53% of leaders acknowledge their organization makes key business decisions without access to reliable, real-time data and insights most or all of the time.



Among the top challenges to maximizing the efficiency and impact of the organization, leaders cite data or system silos that prevent collaboration or inhibit insight (51%) and challenges with real-time collaboration (47%), along with a lack of visibility across the entire product or process lifecycle (42%) and lack of visibility to reliable, real-time information (42%).

The solution: Industrial intelligence



Nearly all manufacturing executives surveyed—an astounding 97%—agree that industrial AI solutions are required now more than ever to remain competitive in today's challenging business landscape.

For nearly three-quarters of manufacturing leaders (74%), investing in industrial intelligence solutions will be a priority for their organization in the next 12 months.

Leaders feel industrial AI offers benefits including optimizing operations, planning and scheduling (50%), enabling stronger data visualization and reporting (50%), and more quickly detecting and diagnosing errors (49%), in addition to shortening production cycles (45%) and improving engineering efficiency (44%).

When **challenges** become **opportunities**:
Rising **costs**, **upskilling** the workforce,
and improving **sustainability**





Interpreting these data and insights at a regional level, Naveen Kumar, AVEVA's industry segment lead for manufacturing commented:



Across the world, manufacturing leaders are under pressure to increase production, drive efficiency and embrace new circular and sustainable processes. As raw materials prices rise and supply chain disruption continues, success requires constant innovation, both to produce more from less and to develop entirely new approaches to established processes. While demand is growing, the need to bring in new skilled workers and the onshoring of supply is changing production dynamics and sales cycles across the sector. Digitalization can support this workforce transition, engage the next generation of innovators and help manufacturers balance supply and demand at scale. Yet priorities and demands differ by region—here are a few perspectives.”

Digging deeper: When **change** becomes **growth**

	Europe	North America	Asia Pacific
 <p>Overview</p>	<p>High energy prices and weak demand continue to contribute to stagnation in European manufacturing, with geopolitical instability disrupting supply chains. Budgets remain tight as EU countries catch up with inflation and production gains appear modest.³</p>	<p>The U.S. manufacturing industry, which stayed stagnant throughout 2023 despite an injection of legislation and private investment, is just now seeing raw materials prices rise—an indicator of recovery.¹ While poised to maintain this uptick, manufacturing is suffering skilled labor shortages and supply chain disruptions that could benefit from digitalization and smart manufacturing.⁴</p>	<p>Despite slight contraction in the manufacturing sector in 2023, strong demand for consumer goods continues to drive the sector in APAC, particularly China and Japan. This is bolstered by increased exports from South Korea and Taiwan, along with economic strength across regional strongholds such as Indonesia and Singapore.⁵</p>
 <p>Look forward</p>	<p>While there is reason to look for modest gains, a focus on improved efficiency through robust data infrastructure will stretch budgets and improve supply chain visibility.</p>	<p>To support more efficient working practices and drive sustainability compliance across the sector, companies that can invest in AI and other innovative tools have the best opportunities for gaining highly skilled workers, earning “green credentials,” and staying competitive.</p>	<p>APAC is projected to have the fastest-growing manufacturing sector in the world in 2024 thanks to robust economic growth. Expanding domestic consumer markets and growing demand for electronics, including EVs, will drive medium-term growth.⁵</p>

Manufacturing industry imperatives: Build a network of industrial intelligence



Leading players are starting to take a data-centric and ecosystem-led approach, **unifying trusted intelligence** from across the value chain and sharing it with partners, suppliers, and even customers to optimize efficiency and drive growth.



Breaking down silos and deepening collaboration can **accelerate your business network growth**, increasing resilience, boosting productivity and employee retention, all while reaching new levels of customer satisfaction.



When product **quality** becomes brand **reputation**

In Austria, automotive parts manufacturer HENN needed to gain real-time insight into its assembly line process to improve the quality of its charged air connector, a critical car component used by most major automotive brands. If it were to fail, leaks could occur, potentially damaging the car and its manufacturer's brand reputation. HENN used CONNECT data services (AVEVA™ Data Hub) to share information with its customers and the car manufacturers, boosting operational efficiency by 10% and ensuring that quality issues could be tracked and traced in real time, improving customer relations and profitability.

"With CONNECT data services and the Edge Data Store, we can monitor and dashboard our products and our assembly lines, and we have the opportunity to create dashboards in different locations – in the assembly line, headquarters, branch office. Our team now has immediate access to data – with just one click."

– Gerhard Bechter, Head of IT, HENN

The AVEVA Survey was conducted by Wakefield Research (www.wakefieldresearch.com) among 500 Executives in North America (US, Canada), Europe (UK, France, Italy, Germany), Middle East (KSA, UAE), and Australia, with the following title and role requirements: C-Levels, VP+ Engineering/IT, VP+ Operations; at companies with a minimum annual revenue of \$50m USD. All respondents worked in one of the following industries: Power, Chemicals, Manufacturing, Infrastructure, conducted in Q1 2024, using an email invitation and an online survey. Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results. For the interviews conducted in this particular study, the chances are 95 in 100 that a survey result does not vary, plus or minus, by more than 4.4 percentage points for the Total Sample and between 8.3 to 9.5 percentage points for the interviews conducted in specific industries (Power, Chemicals, Manufacturing, and Infrastructure), from the result that would be obtained if interviews had been conducted with all persons in the universe represented by the sample.

¹J.P. Morgan Global Manufacturing PMI®. "[Global manufacturing output growth strengthens as new orders rise and employment stabilises.](#)" April 2, 2024.

²Wakefield Research. "Solving Today's Challenges, Meeting Tomorrow's Goals: A Look at Industrial AI in Power, Chemicals, Manufacturing, and Infrastructure." 2024. Survey commissioned by AVEVA.

³ING Think. "[What to expect from European sectors in 2024.](#)" January 18, 2024.

⁴Deloitte Research Center for Energy & Industrials. "[2024 Manufacturing industry outlook.](#)"

⁵S&P Global Market Intelligence. "[APAC economic outlook for 2024 remains bright.](#)" January 5, 2024.