

MANUFACTURING OVERVIEW: CY2025 – Q1

01 Quarterly Summary of Key Trends & Challenges (Q1 CY25)

02 Financial Performance of Manufacturers

03 Manufacturing macro KPIs (USA)

04 Manufacturing macro KPIs (Germany)

05 Topic Highlight: Balancing Innovation with Fundamentals: Why Industry 5.0 Shouldn't Distract from Core Operational Practices

06 AlixPartners' Manufacturing experience

QUARTERLY SUMMARY OF KEY TRENDS & CHALLENGES

Manufacturers reported higher revenues this quarter, with a 4% increase in the USA and a 1% rise in Germany compared to the previous year. This growth likely stems from many customers advancing their purchases to adapt to changes in tariff policies. Consequently, inventory levels have also risen across different sectors.

Uncertainties around tariffs emphasize the importance for manufacturers to focus on operational excellence. Alongside strategies to address tariff effects, manufacturers should continue prioritizing productivity improvements and optimizing operational footprints, which often can be executed independently to tariff considerations.

SUSTAINABILITY OF GROWTH

Sustainability of new order growth trends in US and Germany is unclear and may likely be due to tariff driven short term actions in the marketplace.

LABOR PRODUCTIVITY

Manufacturing have seen a significant increase in wages over the past year (+5% in USA and +4% in Germany). And in the case of Germany, manufactures were not able recoup this through hourly productivity improvements (-1.2% compared to the previous year's quarter). Thus, to remain relevant, factories in the US and Germany need to boost their productivity through investments in smart automation and drivers of operational excellence.

LEVERAGING INDUSTRY 5.0

Balancing innovation without losing sight of operational fundamentals is essential. Fundamentals such as process optimization, training & development, robust systems and procedures drive efficiency and are critical to harvest the benefits of Industry 5.0 to the fullest.

CONTINUED TARIFF MITIGATION

While some companies have pre-emptively planned for tariff changes, leading to a production uplift in Germany & the United States, tariff policies are still dynamic. Thus, manufacturers need to continue prioritization of tariff taskforces and mitigating activities.



FINANCIAL PERFORMANCE OF MANUFACTURERS

REVENUE GROWTH REBOUNDS IN Q1 LIKELY DRIVEN BY SHORT-TERM TARRIFF MITIGATION ACTIONS

INDUSTRY ¹	% OF COMPANIES THAT BEAT MARKET EBITDA ESTIMATES			
	Q2 '24	Q3 '24	Q4 '24	Q1 '25
Aerospace & Defense	68%	74%	71%	78%
Automotive	57%	50%	64%	65%
Chemicals	52%	50%	46%	81%
Consumer Electronics	62%	52%	42%	52%
Energy & Utilities	62%	57%	71%	63%
Food & Beverage	76%	65%	55%	63%
Health & Beauty	69%	55%	61%	73%
Household Durables	63%	54%	54%	43%
Industrial & Building Products	67%	50%	53%	61%
Metal & Mining	63%	85%	60%	82%
Paper & Pulp Products	53%	41%	50%	61%

QoQ Change

Positive

Negative or flat

INDUSTRY ²	REVENUE TTM				GROSS MARGIN TTM				INVENTORY TURNOVER			
	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '24	Q3 '24	Q4 '24	Q1 '25
Aerospace & Defense	+	+	-	+	-	+	+	-	+	-	+	-
Automotive	-	++	--	+	+	+	-	-	-	+	+	-
Chemicals	-	+	--	+	+	+	+	+	+	+	+	-
Consumer Electronics	+	++	-	+	+	+	-	-	-	-	+	+
Energy & Utilities	+	-	--	-	+	--	-	-	+	-	+	-
Food & Beverage	-	+	-	+	+	+	+	+	-	+	-	-
Health & Beauty	-	++	--	+	+	+	-	+	+	-	+	-
Household Durables	-	+	-	+	+	-	+	-	-	+	+	-
Industrial & Building Products	-	+	--	+	+	+	+	+	-	+	+	-
Metal & Mining	-	+	-	+	+	-	+	-	+	+	+	-
Paper & Pulp Products	-	+	--	+	+	-	+	-	-	+	+	-

QoQ Trend
Legend

“++” OR “--”
“+” OR “-”

Change in Revenue & Gross Margin exceed +/-5% | Change in Inventory Turn exceeds +/- 0.5
Change in Revenue & Gross Margin within +/-5% | Change in Inventory Turn within +/- 0.5



COMMENTS

- General revenues growth across industries likely driven by short-term tariff mitigation actions by industry players
- Mixed trends in gross margin & decreased inventory turns suggest possible in-take of raw materials and/or positioning of finish goods in supply chain to avoid incremental tariffs

Note: Companies within Industries include Top 40 global public companies by Revenue; based on data available at time of publication
(1) based on market consensus on EBITDA estimates vs actuals, calculation based on companies with available data only
(2) metric trend based on median in industry group
Manufacturing Overview: CY2025 – Q1

US PRODUCTION OUTPUT HAS INCREASED IN THE LAST QUARTER, REVERSING THE RECENT DOWNWARD TREND

CALENDAR QUARTER BY QUARTER CHANGE	HIGHLIGHTS																		
<p>Manufacturing production (Indexed to 2017 production)</p> <table><tr><th>Quarter</th><th>Value</th></tr><tr><td>Q2'23</td><td>100.1</td></tr><tr><td>Q3'23</td><td>100.0</td></tr><tr><td>Q4'23</td><td>99.7</td></tr><tr><td>Q1'24</td><td>99.5</td></tr><tr><td>Q2'24</td><td>99.8</td></tr><tr><td>Q3'24</td><td>99.6</td></tr><tr><td>Q4'24</td><td>99.3</td></tr><tr><td>Q1'25</td><td>100.4</td></tr></table>	Quarter	Value	Q2'23	100.1	Q3'23	100.0	Q4'23	99.7	Q1'24	99.5	Q2'24	99.8	Q3'24	99.6	Q4'24	99.3	Q1'25	100.4	<ul style="list-style-type: none">A recent jump in production is tied to a spike related to proposed or recently implemented tariffs
Quarter	Value																		
Q2'23	100.1																		
Q3'23	100.0																		
Q4'23	99.7																		
Q1'24	99.5																		
Q2'24	99.8																		
Q3'24	99.6																		
Q4'24	99.3																		
Q1'25	100.4																		
<p>Manufacturing capacity utilization, %</p> <table><tr><th>Quarter</th><th>Value</th></tr><tr><td>Q2'23</td><td>78.4</td></tr><tr><td>Q3'23</td><td>78.0</td></tr><tr><td>Q4'23</td><td>77.5</td></tr><tr><td>Q1'24</td><td>77.1</td></tr><tr><td>Q2'24</td><td>77.1</td></tr><tr><td>Q3'24</td><td>76.7</td></tr><tr><td>Q4'24</td><td>76.1</td></tr><tr><td>Q1'25</td><td>76.8</td></tr></table>	Quarter	Value	Q2'23	78.4	Q3'23	78.0	Q4'23	77.5	Q1'24	77.1	Q2'24	77.1	Q3'24	76.7	Q4'24	76.1	Q1'25	76.8	<ul style="list-style-type: none">The quarter over quarter jump reflects the recent increase of production related to impact from tariffs
Quarter	Value																		
Q2'23	78.4																		
Q3'23	78.0																		
Q4'23	77.5																		
Q1'24	77.1																		
Q2'24	77.1																		
Q3'24	76.7																		
Q4'24	76.1																		
Q1'25	76.8																		
<p>Manufacturer's New orders, \$B</p> <table><tr><th>Quarter</th><th>Value</th></tr><tr><td>Q2'23</td><td>581.3</td></tr><tr><td>Q3'23</td><td>586.3</td></tr><tr><td>Q4'23</td><td>586.4</td></tr><tr><td>Q1'24</td><td>578.4</td></tr><tr><td>Q2'24</td><td>577.8</td></tr><tr><td>Q3'24</td><td>588.1</td></tr><tr><td>Q4'24</td><td>583.5</td></tr><tr><td>Q1'25</td><td>600.8</td></tr></table>	Quarter	Value	Q2'23	581.3	Q3'23	586.3	Q4'23	586.4	Q1'24	578.4	Q2'24	577.8	Q3'24	588.1	Q4'24	583.5	Q1'25	600.8	<ul style="list-style-type: none">New orders are likely tied to short term spike in domestic sourcing because of the new tariff regime
Quarter	Value																		
Q2'23	581.3																		
Q3'23	586.3																		
Q4'23	586.4																		
Q1'24	578.4																		
Q2'24	577.8																		
Q3'24	588.1																		
Q4'24	583.5																		
Q1'25	600.8																		
<p>Private fixed investment, \$B</p> <table><tr><th>Quarter</th><th>Value</th></tr><tr><td>Q2'23</td><td>195.6</td></tr><tr><td>Q3'23</td><td>197.7</td></tr><tr><td>Q4'23</td><td>209.0</td></tr><tr><td>Q1'24</td><td>224.0</td></tr><tr><td>Q2'24</td><td>234.3</td></tr><tr><td>Q3'24</td><td>233.4</td></tr><tr><td>Q4'24</td><td>234.1</td></tr><tr><td>Q1'25</td><td>233.0</td></tr></table>	Quarter	Value	Q2'23	195.6	Q3'23	197.7	Q4'23	209.0	Q1'24	224.0	Q2'24	234.3	Q3'24	233.4	Q4'24	234.1	Q1'25	233.0	<ul style="list-style-type: none">Private fixed investments in manufacturing have seen gradual growth over the past two years, but has stagnated in the last year, likely due to uncertainty around stickiness of current policies
Quarter	Value																		
Q2'23	195.6																		
Q3'23	197.7																		
Q4'23	209.0																		
Q1'24	224.0																		
Q2'24	234.3																		
Q3'24	233.4																		
Q4'24	234.1																		
Q1'25	233.0																		
<p>Unfavorable business climate (taxes, regulations, etc.), % of respondents agreeing with the statement</p> <table><tr><th>Quarter</th><th>Value</th></tr><tr><td>Q2'23</td><td>52%</td></tr><tr><td>Q3'23</td><td>57%</td></tr><tr><td>Q4'23</td><td>61%</td></tr><tr><td>Q1'24</td><td>59%</td></tr><tr><td>Q2'24</td><td>60%</td></tr><tr><td>Q3'24</td><td>61%</td></tr><tr><td>Q4'24</td><td>46%</td></tr><tr><td>Q1'25</td><td>37%</td></tr></table>	Quarter	Value	Q2'23	52%	Q3'23	57%	Q4'23	61%	Q1'24	59%	Q2'24	60%	Q3'24	61%	Q4'24	46%	Q1'25	37%	<ul style="list-style-type: none">Concerns around unfavorable business climate has dropped significantly, a likely symptom of favorability of current administration toward manufacturers
Quarter	Value																		
Q2'23	52%																		
Q3'23	57%																		
Q4'23	61%																		
Q1'24	59%																		
Q2'24	60%																		
Q3'24	61%																		
Q4'24	46%																		
Q1'25	37%																		

US MANUFACTURING LABOR MARKET IMPROVING BUT CONTINUE TO HAVE UPWARD WAGE PRESSURE

CALENDAR QUARTER BY QUARTER CHANGE	HIGHLIGHTS																		
<p>Total manufacturing employees, M</p> <table><thead><tr><th>Quarter</th><th>Employees (M)</th></tr></thead><tbody><tr><td>Q2'23</td><td>12.9</td></tr><tr><td>Q3'23</td><td>12.9</td></tr><tr><td>Q4'23</td><td>12.9</td></tr><tr><td>Q1'24</td><td>12.9</td></tr><tr><td>Q2'24</td><td>12.8</td></tr><tr><td>Q3'24</td><td>12.8</td></tr><tr><td>Q4'24</td><td>12.8</td></tr><tr><td>Q1'25</td><td>12.8</td></tr></tbody></table>	Quarter	Employees (M)	Q2'23	12.9	Q3'23	12.9	Q4'23	12.9	Q1'24	12.9	Q2'24	12.8	Q3'24	12.8	Q4'24	12.8	Q1'25	12.8	<ul style="list-style-type: none">Manufacturing employment continues to be stagnant/slightly declining even as additional capacity is added (likely due to increased automation)
Quarter	Employees (M)																		
Q2'23	12.9																		
Q3'23	12.9																		
Q4'23	12.9																		
Q1'24	12.9																		
Q2'24	12.8																		
Q3'24	12.8																		
Q4'24	12.8																		
Q1'25	12.8																		
<p>Total manufacturing job openings, K</p> <table><thead><tr><th>Quarter</th><th>Openings (K)</th></tr></thead><tbody><tr><td>Q2'23</td><td>606</td></tr><tr><td>Q3'23</td><td>581</td></tr><tr><td>Q4'23</td><td>572</td></tr><tr><td>Q1'24</td><td>576</td></tr><tr><td>Q2'24</td><td>516</td></tr><tr><td>Q3'24</td><td>491</td></tr><tr><td>Q4'24</td><td>445</td></tr><tr><td>Q1'25</td><td>469</td></tr></tbody></table>	Quarter	Openings (K)	Q2'23	606	Q3'23	581	Q4'23	572	Q1'24	576	Q2'24	516	Q3'24	491	Q4'24	445	Q1'25	469	<ul style="list-style-type: none">Openings have stabilized in the last few quarters, but are still significantly lower than previous periods; there may be an uptick in openings if production stays high due to tariff reactions
Quarter	Openings (K)																		
Q2'23	606																		
Q3'23	581																		
Q4'23	572																		
Q1'24	576																		
Q2'24	516																		
Q3'24	491																		
Q4'24	445																		
Q1'25	469																		
<p>Manufacturing hourly wage rates, \$/hr</p> <table><thead><tr><th>Quarter</th><th>Wage Rate (\$/hr)</th></tr></thead><tbody><tr><td>Q2'23</td><td>26.2</td></tr><tr><td>Q3'23</td><td>26.5</td></tr><tr><td>Q4'23</td><td>26.9</td></tr><tr><td>Q1'24</td><td>27.3</td></tr><tr><td>Q2'24</td><td>27.6</td></tr><tr><td>Q3'24</td><td>28.0</td></tr><tr><td>Q4'24</td><td>28.3</td></tr><tr><td>Q1'25</td><td>28.7</td></tr></tbody></table>	Quarter	Wage Rate (\$/hr)	Q2'23	26.2	Q3'23	26.5	Q4'23	26.9	Q1'24	27.3	Q2'24	27.6	Q3'24	28.0	Q4'24	28.3	Q1'25	28.7	<ul style="list-style-type: none">Manufacturing wages continue an upward trend, increasing slightly more on a percentage basis than overall wages in the US
Quarter	Wage Rate (\$/hr)																		
Q2'23	26.2																		
Q3'23	26.5																		
Q4'23	26.9																		
Q1'24	27.3																		
Q2'24	27.6																		
Q3'24	28.0																		
Q4'24	28.3																		
Q1'25	28.7																		
<p>Attracting & Retaining Workforce</p> <p>% of survey respondents agreeing with the assertion is a concern</p> <table><thead><tr><th>Quarter</th><th>% Concern</th></tr></thead><tbody><tr><td>Q2'23</td><td>74%</td></tr><tr><td>Q3'23</td><td>72%</td></tr><tr><td>Q4'23</td><td>71%</td></tr><tr><td>Q1'24</td><td>65%</td></tr><tr><td>Q2'24</td><td>68%</td></tr><tr><td>Q3'24</td><td>60%</td></tr><tr><td>Q4'24</td><td>56%</td></tr><tr><td>Q1'25</td><td>48%</td></tr></tbody></table>	Quarter	% Concern	Q2'23	74%	Q3'23	72%	Q4'23	71%	Q1'24	65%	Q2'24	68%	Q3'24	60%	Q4'24	56%	Q1'25	48%	<ul style="list-style-type: none">Concerns around hiring & retaining employees continue to ease as it seems that low skill jobs are easier to fill, but manufacturers are still struggling to fill jobs in some areas, like skilled trades.
Quarter	% Concern																		
Q2'23	74%																		
Q3'23	72%																		
Q4'23	71%																		
Q1'24	65%																		
Q2'24	68%																		
Q3'24	60%																		
Q4'24	56%																		
Q1'25	48%																		
<p>Rising Healthcare/Insurance Costs</p> <p>% of survey respondents agreeing with the assertion is a concern</p> <table><thead><tr><th>Quarter</th><th>% Concern</th></tr></thead><tbody><tr><td>Q2'23</td><td>53%</td></tr><tr><td>Q3'23</td><td>60%</td></tr><tr><td>Q4'23</td><td>60%</td></tr><tr><td>Q1'24</td><td>58%</td></tr><tr><td>Q2'24</td><td>67%</td></tr><tr><td>Q3'24</td><td>63%</td></tr><tr><td>Q4'24</td><td>63%</td></tr><tr><td>Q1'25</td><td>58%</td></tr></tbody></table>	Quarter	% Concern	Q2'23	53%	Q3'23	60%	Q4'23	60%	Q1'24	58%	Q2'24	67%	Q3'24	63%	Q4'24	63%	Q1'25	58%	<ul style="list-style-type: none">Slight decrease since last quarter, but overall concerns around healthcare costs are likely to stay high as healthcare costs continue to increase or stay at current rates
Quarter	% Concern																		
Q2'23	53%																		
Q3'23	60%																		
Q4'23	60%																		
Q1'24	58%																		
Q2'24	67%																		
Q3'24	63%																		
Q4'24	63%																		
Q1'25	58%																		

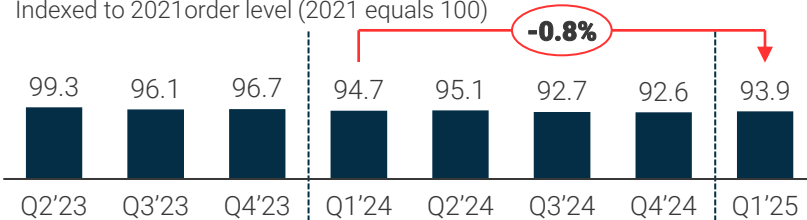
MACRO KPI (GERMANY) - PRODUCTION AND CAPACITY

GERMANY'S MANUFACTURING COMPANIES SEEM TO HAVE STOPPED THE DOWNWARDS TREND FOR NOW

CALENDAR QUARTER BY QUARTER CHANGE

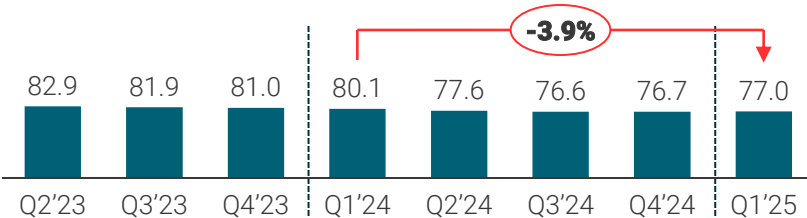
HIGHLIGHTS

Manufacturing production, index
Indexed to 2021 order level (2021 equals 100)



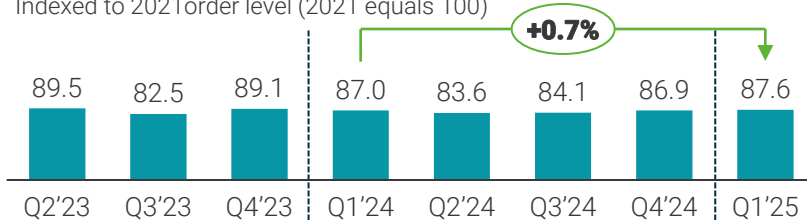
- Gross value creation has been declining over the past 2 years but show a slight recovery compared to the past six month
- The downwards trend is still alarming as Germany needs regain its competitiveness

Manufacturing capacity utilization, %



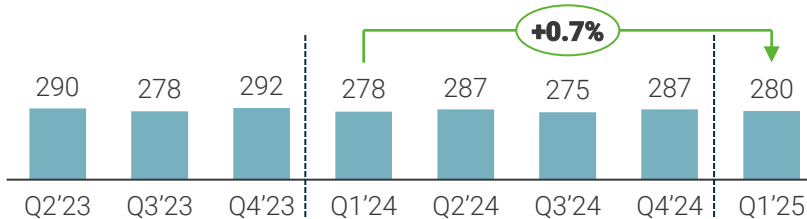
- An average utilization below 80% is concerning
- Companies need to optimize their manufacturing footprint to increase utilization hence, profitability

Manufacturing new orders, index
Indexed to 2021 order level (2021 equals 100)



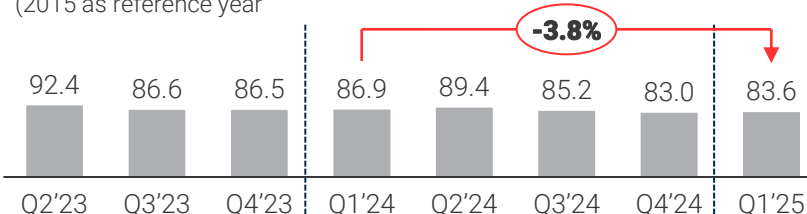
- New orders went up in the first quarter of the year but may stagnate in the upcoming year as this might be a temporary effect caused by dynamic tariff environments

Manufacturing export volume, bn€



- Export shows a positive trend (+0.7%) compared to the previous year; likely driven by the precautions companies underwent manage expected US tariffs

Manufacturing Ifo business climate, index
(2015 as reference year)

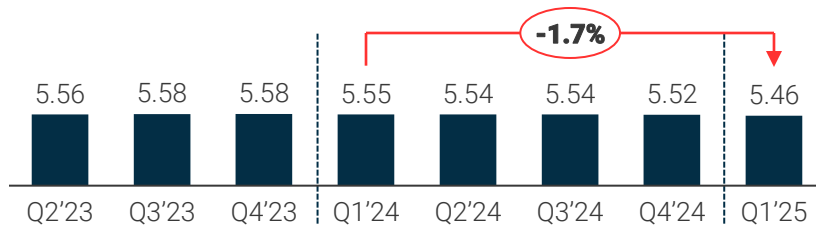


- There is a slight improvement in current business performance and future expectations compared to the previous quarter. Business uncertainties such as tariffs and stagnation of the economy are still having a big impact on companies' confidence

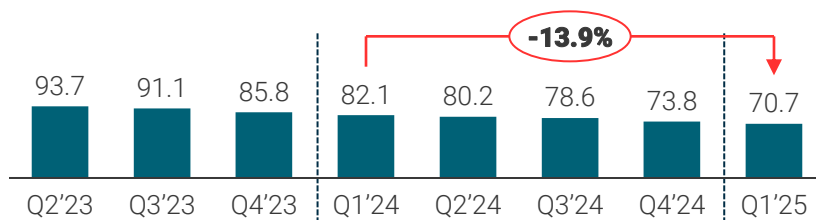
GERMAN COMPANIES NEED TO INVEST IN PRODUCTIVITY TO REGAIN COMPETITIVENESS

CALENDAR QUARTER BY QUARTER CHANGE

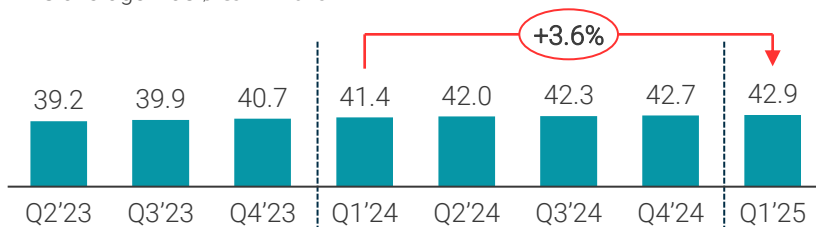
Total manufacturing jobs, M



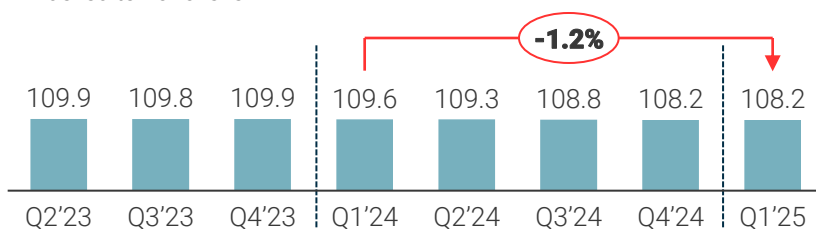
Total manufacturing job openings, K



Manufacturing hourly wage rates (12month view), €/hr
EU average was ø €32 in 2023



Productivity per hour, #
Indexed to 2020 level



HIGHLIGHTS

- Manufacturing jobs have been slightly decreasing on a month-by-month basis; further reductions may occur as many companies have been working on rightsizing their companies as a necessity to improve/maintain profitability

- Job openings have been decreasing significantly (-13.9%) compared to the previous year's quarter
- Hiring freeze is a clear indication that companies are planning to/ are currently in the process of downsizing

- Wages have been increasing, but the delta between past quarters have been rather flat
- Modest increases in the future may occur, as many companies seek to constrain compensation growth in response to ongoing economic headwinds

- Productivity continues to be lower than the productivity of the previous years. Germany's manufacturers need to increase their productivity to regain competitiveness
- Fundamentals such as Operational Expertise, Innovation and Adaptability are becoming more essential (see highlighted topic in this report)

TOPIC HIGHLIGHT

BALANCING INNOVATION WITH FUNDAMENTALS: WHY INDUSTRY 5.0 SHOULDN'T DISTRACT FROM CORE OPERATIONAL PRACTICES

In the fast-changing industrial landscape, Industry 5.0 introduces advanced, human-centric and AI enabled manufacturing. While these innovations offer exciting possibilities, there's a danger in becoming too focused on technology at the cost of fundamental operations. As Elon Musk famously stated after missing production targets for the Tesla Model 3, "Yes, excessive automation at Tesla was a mistake. To be precise, my mistake. Humans are underrated."

It's crucial for organizations to embrace Industry 5.0 while also maintaining attention on the core principles vital for effective operations. This approach emphasizes collaboration between humans and machines, using technologies like AI and IIoT to foster adaptability and resilience. However, companies must balance the integration of new technologies with the preservation of existing practices and skills, ensuring solid foundations

before pursuing advancements. For long-term success, organizations (high or low-tech) should focus on:

- **Process Optimization:** Constantly improving processes for better efficiency and quality.
- **Training and Development:** Investing in employee skills to maintain high standards
- **Robust Systems and Procedures:** Creating dependable systems for effective operations

Even with the rise of Industry 5.0, core operational skills are crucial for effective industrial operations. The following 8 core skills enable high standards, process improvement, and adaptability to technological changes. By upholding these practices, organizations can effectively leverage new technologies while ensuring operational excellence.

Read more in depth at [AlixPartners Insights](#).

1

Technical Proficiency

Operational Expertise Process Knowledge

2

Problem Solving Skills

Analytical Thinking Innovation & Creativity

3

Technical Skill Development

Continuous Learning Adaptability

4

Quality Management

Attention to Detail Standards Compliance

5

Communication & Collaboration

Team Coordination Reporting & Documentation

6

Project Management

Planning & Execution Performance Monitoring

7

Safety & Compliance

Safety Protocols Regulatory Knowledge

8

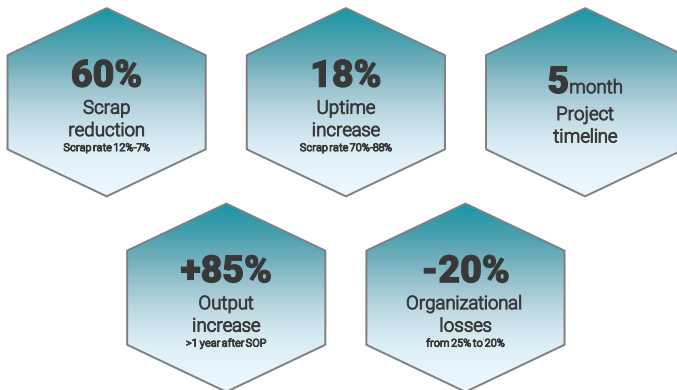
Leadership & Management

Decision-Making Mentoring & Training

TOPIC HIGHLIGHT

CASE STUDY ON DATA-DRIVEN OEE IMPROVEMENT SUPPORTED BY STRUCTURED PROBLEM SOLVING

RESULTS



SELECT FOCUS AREAS

De-coupling of buffer stocks between bottleneck sections

Optimization of shift handovers

Optimization of part positioning

Improvement of dispensing material mass (learning cycles)

SITUATION

- Severe supply backlogs towards OEM
- High scrap rates
- Maximum production output falling short of OEM targets

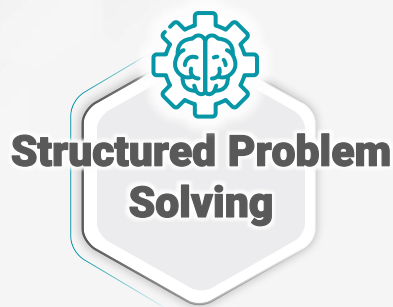
ACTIONS

- Established a taskforce of process and data analytics experts
- Developed a robust data architecture to identify loss drivers
- Derived effective improvement measures using data analytics and process understanding
- Implemented and refined improvement measures
- Transferred problem-solving skills to local process owners

Read more in depth at [Berylls Insights](https://www.berylls.com/data-driven-oeo-improvement/)



=

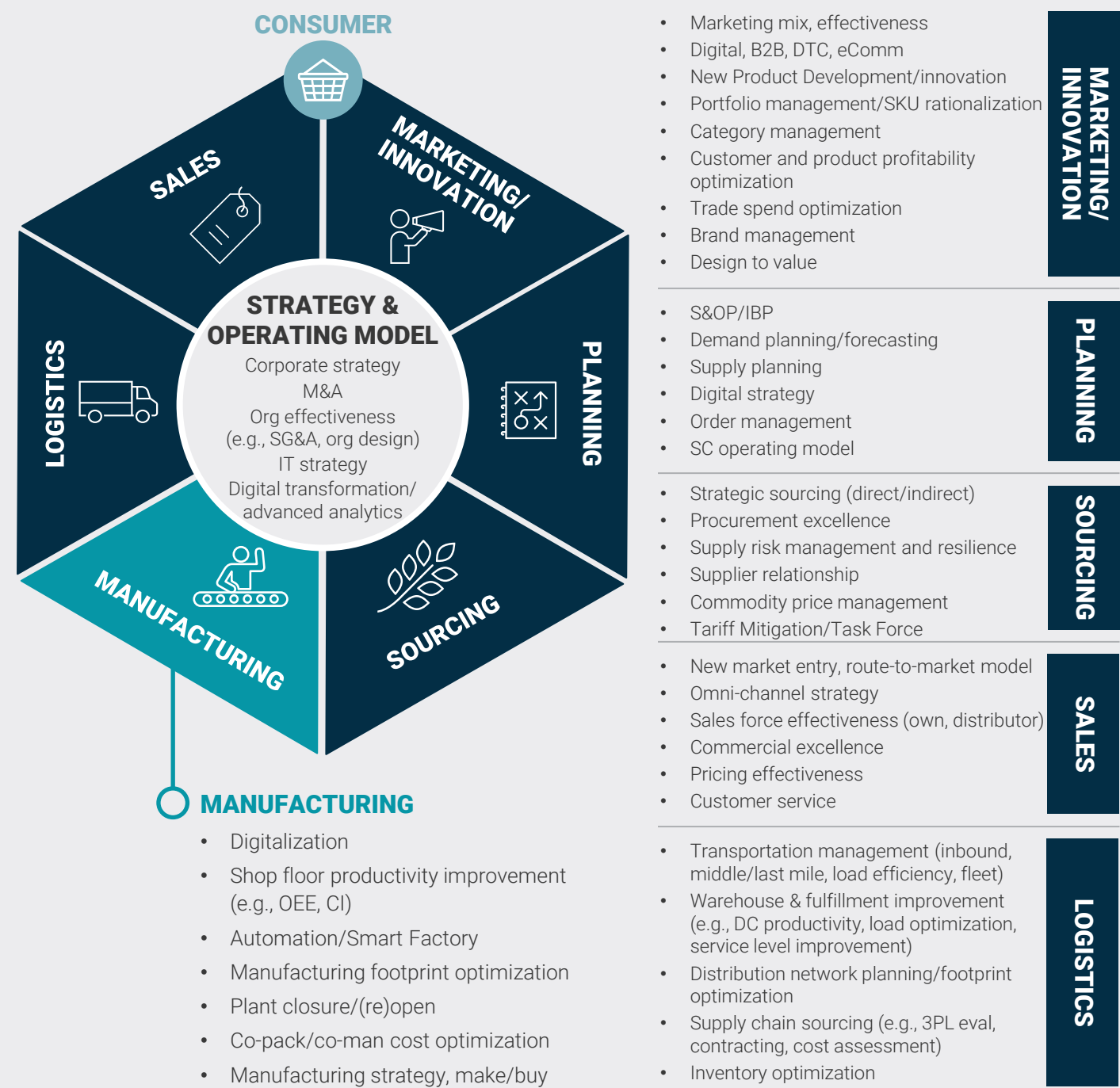


X



AlixPartners has core competencies across the value chain including planning, sourcing, manufacturing, logistics and sales & marketing

Sample areas of AlixPartners capabilities across industries



DATA SOURCES GLOBAL & USA

KPI	Source
% of Companies that beat market EBITDA estimates	Publicly available Financial filings of Top 40 Companies via S&P Capital IQ Calculation: Quarterly results taken
Revenue	Publicly available Financial filings of Top 40 Companies via S&P Capital IQ Calculation: Quarterly results taken
Gross Margin	Publicly available Financial filings of Top 40 Companies via S&P Capital IQ Calculation: Quarterly results taken
Inventory Turnover	Publicly available Financial filings of Top 40 Companies via S&P Capital IQ Calculation: Quarterly results taken
Manufacturing production, index	Federal Reserve Bank of St. Louis Calculation: Quarterly results taken
Manufacturing capacity utilization, %	Federal Reserve Bank of St. Louis Calculation: Quarterly results taken
Manufacturer's New orders, \$B	United States Census Bureau Manufacturers' Shipments, Inventories, and Orders, Seasonally Adjusted Calculation: Quarterly results taken
Private fixed investment, \$B	Federal Reserve Bank of St. Louis Calculation: Quarterly results taken
Unfavorable business climate, % concerned	National Association of Manufacturers – NAM Manufacturers' Outlook Survey Calculation: Quarterly results taken
Total manufacturing employees, M	Federal Reserve Bank of St. Louis Calculation: Quarterly results taken
Total manufacturing job openings, K	Federal Reserve Bank of St. Louis Calculation: Quarterly results taken
Manufacturing hourly wage rates, \$/hr	Federal Reserve Bank of St. Louis Calculation: Quarterly results taken
Attracting & Retaining Workforce, % concerned	National Association of Manufacturers – NAM Manufacturers' Outlook Survey Calculation: Quarterly results taken
Rising Healthcare/Insurance Costs, % concerned	National Association of Manufacturers – NAM Manufacturers' Outlook Survey Calculation: Quarterly results taken

DATA SOURCES GERMANY

KPI	Source
Manufacturing production, index	Statistisches Bundesamt: Code: 42153-0001 Produktionsindex für das Verarbeitende Gewerbe: Deutschland, Monate, Original- und bereinigte Daten, Wirtschaftszweige (Hauptgruppen und Aggregate) Calculation: Average over the three month in the quarter
Manufacturing capacity utilization, %	ifo Institut: Ifo Konjunkturperspektiven x/202x Calculation: Quarterly results taken
Manufacturing new orders, index	Statistisches Bundesamt: Code: 42151-0004 Auftragseingang im Verarbeitenden Gewerbe (Volumenindex): Deutschland, Monate, Original- und bereinigte Daten, Absatzrichtung, Wirtschaftszweige (Hauptgr. und Aggregate) Calculation: Average over the three month in the quarter
Manufacturing Ifo business climate, index	Ifo Institute: Verarbeitendes Gewerbe Calculation: Geschäftsklima = $((\text{Lage} + 200)(\text{Erwartungen} + 200))^{0.5} - 200$ Calculation: Index = $(\text{Saldo im Berichtsmonat} + 200) / (\text{Durschnittlicher Saldo im Basisjahr} + 200) * 100$ (Reference year is 2015)
Manufacturing export volume, bn€	Statistisches Bundesamt: Code: 42111-0002 Beschäftigte und Umsatz der Betriebe im Verarbeitenden Gewerbe: Deutschland, Monate, Wirtschaftszweige (WZ2008 Hauptgruppen und Aggregate) Calculation: Sum over the three month in the quarter
Total manufacturing jobs, M	Statistisches Bundesamt: Code: 42111-0002 Beschäftigte und Umsatz der Betriebe im Verarbeitenden Gewerbe: Deutschland, Monate, Wirtschaftszweige (WZ2008 Hauptgruppen und Aggregate) Calculation: Average over the three month in the quarter
Total manufacturing job openings, K	Bundesagentur für Arbeit: Gemeldete Arbeitsstellen nach Wirtschaftszweigen - Deutschland, West/Ost und Länder (Monatszahlen) Calculation: Average over the three month in the quarter
Manufacturing hourly wage rates, €/hr	Statistisches Bundesamt: Code: 81000-0018 VGR des Bundes - Produktivität, Arbeitnehmerentgelt, Brutto- löhne u. -gehälter, Lohnstückkosten: Deutschland, Quartale, Original- und bereinigte Daten, Wirtschaftsbereiche Calculation: For each quarter, the average of the past 12 months was calculated
Average number of sick days per quarter, days	Institut für Arbeitsmarkt- und Berufsforschung: Durchschnittliche Arbeitszeit und ihre Komponenten in Deutschland Calculation: Quarterly results taken
Productivity per hour, #	Statistisches Bundesamt: Code: 81000-0018 VGR des Bundes - Produktivität, Arbeitnehmerentgelt, Brutto- löhne u. -gehälter, Lohnstückkosten: Deutschland, Quartale, Original- und bereinigte Daten, Wirtschaftsbereiche Calculation: For each quarter, the average of the past 12 months was calculated

KEY CONTACTS:

Parmesh Bhaskaran (US)

Partner & Managing Director

Global Leader of End-to-End
Supply Chain

+1 (630) 561-3350

pbhaskaran@alixpartners.com

Steven Hilgendorf (US)

Partner & Managing Director

Global Co-Leader of
Manufacturing & Operations

+1 (262) 951-1907

shilgendorf@alixpartners.com

Nicolas Franzwa (Germany)

Partner & Managing Director

Global Co-Leader of
Manufacturing & Operations

+49 172 1 30 43 89

nfranzwa@alixpartners.com

Dr. Xing Zhou (Germany)

Partner & Managing Director

Automotive & Industrial Goods

+49 (0) 172 88 10 474

xzhou@alixpartners.com

CONTRIBUTORS:

Jens Wunderlin

Director

+49 152 218 08448

jwunderlin@alixpartners.com

Akshay Balachandran

Director

+1 (309) 271-3401

abalachandran@alixpartners.com

Robbie Ehlers

Sr. Vice President

+1 (312) 203-9941

jeblers@alixpartners.com

Kristof Adomaitis

Sr. Vice President

+49 17 36 96 03 05

kadomaitis@alixpartners.com

Aditya Yadav

Vice President

+1 (872) 202-3685

ayadav@alixpartners.com

Narayan Natarajan

Vice President

+1 (312) 927-3255

nnatarajan@alixpartners.com

ABOUT US:

For more than 40 years, AlixPartners has helped businesses around the world respond quickly and decisively to their most critical challenges – circumstances as diverse as urgent performance improvement, accelerated transformation, complex restructuring and risk mitigation.

These are the moments when everything is on the line – a sudden shift in the market, an unexpected performance decline, a time-sensitive deal, a fork in-the-road decision. But it's not what we do that makes a difference, it's how we do it.

Tackling situations when time is of the essence is part of our DNA – so we adopt an action-oriented approach at all times. We work in small, highly qualified teams with specific industry and functional expertise, and we operate at pace, moving quickly from analysis to implementation. We stand shoulder to shoulder with our clients until the job is done, and only measure our success in terms of the results we deliver.

Our approach enables us to help our clients confront and overcome truly future-defining challenges. We partner with you to make the right decisions and take the right actions. And we are right by your side. When it really matters.

The opinions expressed are those of the author(s) and do not necessarily reflect the views of AlixPartners, LLP, its affiliates, or any of its or their respective professionals or clients. This article Manufacturing Overview ("Article") was prepared by AlixPartners, LLP ("AlixPartners") for general information and distribution on a strictly confidential and non-reliance basis. No one in possession of this Article may rely on any portion of this Article. This Article may be based, in whole or in part, on projections or forecasts of future events. A forecast, by its nature, is speculative and includes estimates and assumptions which may prove to be wrong. Actual results may, and frequently do, differ from those projected or forecast. The information in this Article reflects conditions and our views as of this date, all of which are subject to change. We undertake no obligation to update or provide any revisions to the Article. This Article is the property of AlixPartners, and neither the Article nor any of its contents may be copied, used, or distributed to any third party without the prior written consent of AlixPartners.