



BUILD ELECTRONICS BETTER

The Current Sentiment of the Global Electronics Manufacturing Supply Chain

Monitoring the Pulse of the Global Electronics Industry

May 2022

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Executive Summary



> Costs Remain Key Pain Point for Electronics Manufacturers

- Similar to recent months, nine in ten electronics manufacturers are currently experiencing rising material costs, while nearly four-fifths are experiencing rising labor costs. The Labor Cost Index rose 4 points, tying its all-time high of 138. Electronics manufacturers continue to report difficulty in recruiting and hiring skilled talent.
- Over the next six months, manufacturers expect to see continued increases in both material costs and labor costs

> Overall Demand Remains Strong and Backlog is Increasing

- The New Orders Index declined slightly for the second month but remains well in expansionary territory. Both the Backlog Index and the Backlog Outlook Index rose sharply in the last month, suggesting upward demand in the months to come.

> Inventories Remain Tight

- Inventories available to customers (IAC Index) and inventories available to you from your suppliers (IAFS Index) are both in contractionary territory. Results this month suggest inventories available from suppliers have deteriorated over the last month.

> Government is not Doing Enough to Spur Innovation and Capacity in the Semiconductor Industry

- Only three in ten electronics manufacturers feel their government is moving with appropriate breadth to spur innovation and capacity within the semiconductor industry. Notably, manufacturers in APAC and firms operating globally are more likely to agree with this sentiment compared to their counterparts in North America and Europe.
- Nearly half of manufacturers agree that government semiconductor goals are necessarily tied to investments in the wider electronics manufacturing ecosystem

Current Conditions for the Electronics Supply Chain Remain Challenging

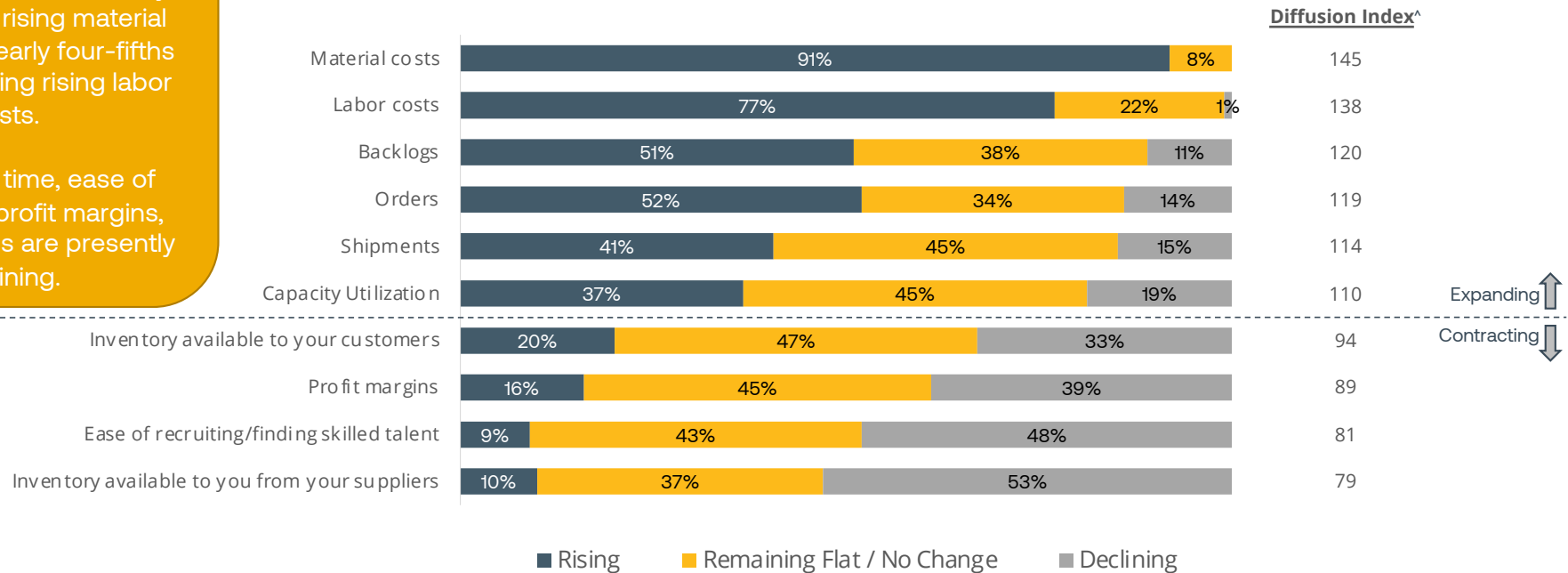


Nine in ten electronics manufacturers are currently experiencing rising material costs, while nearly four-fifths are experiencing rising labor costs.

At the same time, ease of recruitment, profit margins, and inventories are presently declining.

Current Direction of Key Business Indicators

-- Total --



[^]A diffusion index is a statistical measure used to detect economic turning points.

Regional Differences in Current Conditions



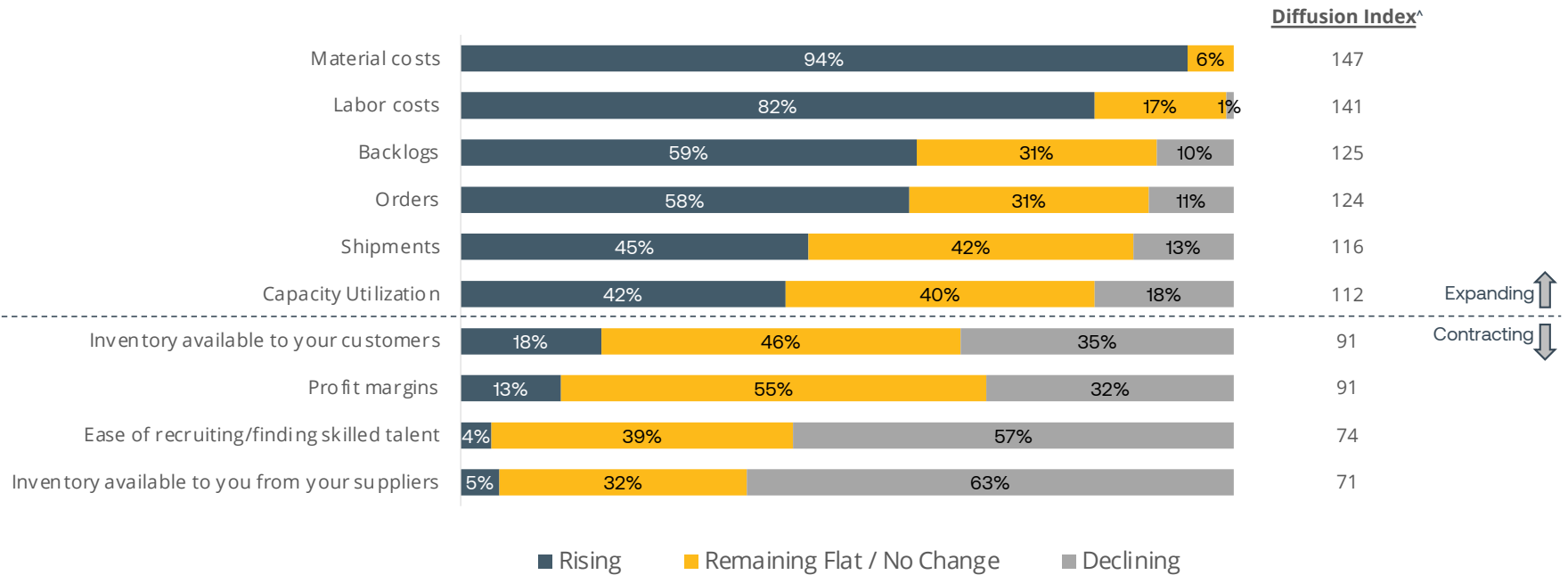
- **Backlogs are rising at a faster pace in North America vs. APAC**
 - While 59% of manufacturers in North America report backlogs are currently rising, only 33% of APAC manufacturers indicate the same.
- **Ease of recruitment is currently improving at a significantly higher rate among firms operating in APAC and Globally when compared to both North American and European firms**
 - 21% of APAC manufacturers and 22% of those operating Globally report ease of finding skilled talent to be rising, which compares to only 4% in North America and 0% in Europe.
- **Inventory available from suppliers is also improving in APAC quicker than in North America**
 - While 21% of APAC firms indicate inventory available from suppliers is currently rising, manufacturers in North America say it is increasing at a much slower pace (5%).

The View From Companies Primarily Operating in North America



Current Direction of Key Business Indicators

-- Primary Region: North America --



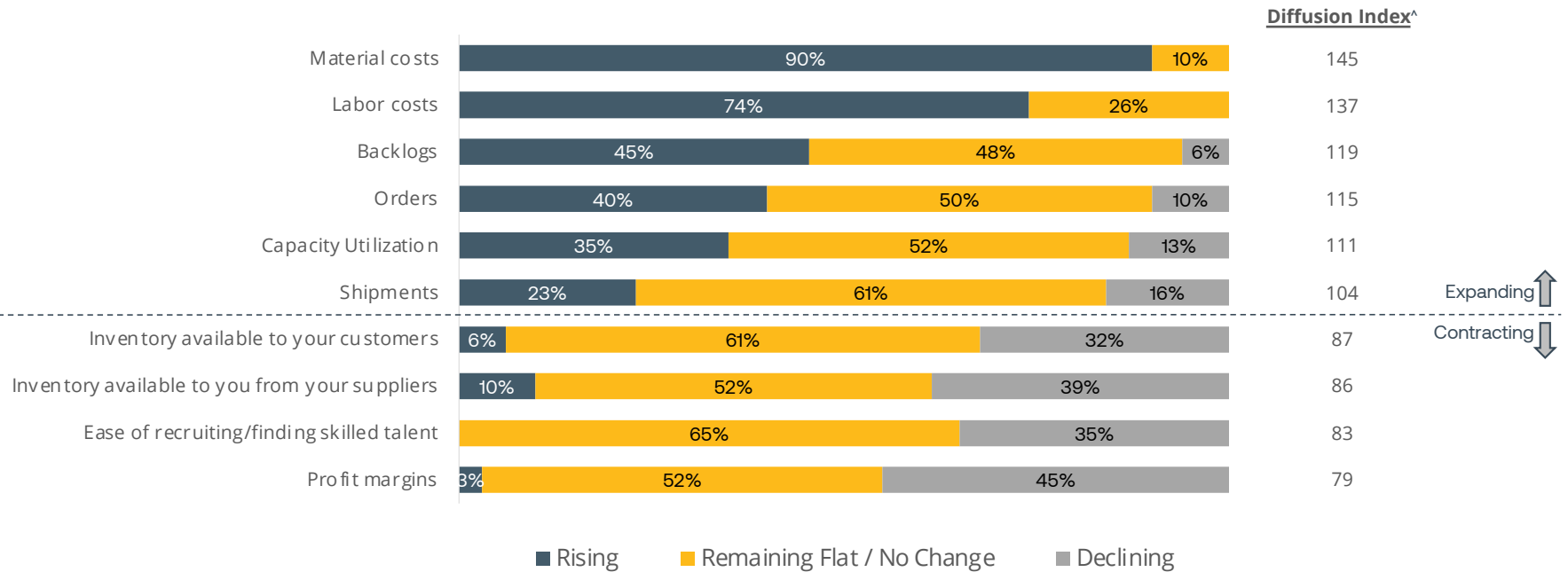
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The View From Companies Primarily Operating in Europe



Current Direction of Key Business Indicators

-- Primary Region: Europe --



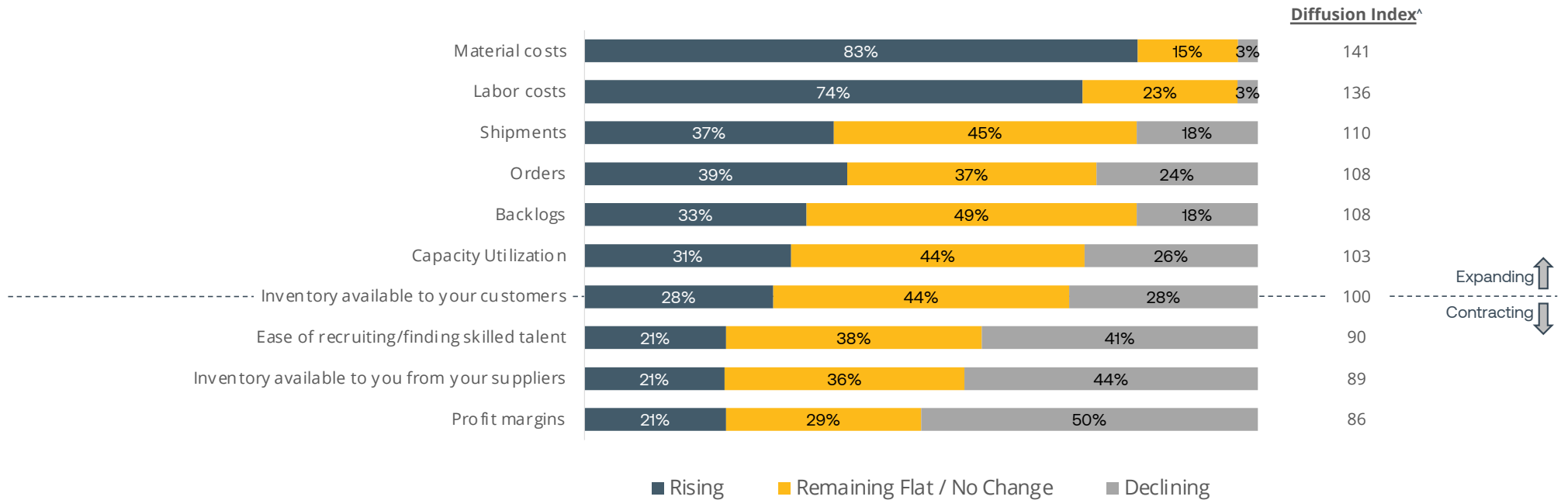
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The View From Companies Primarily Operating in APAC



Current Direction of Key Business Indicators

-- Primary Region: APAC --



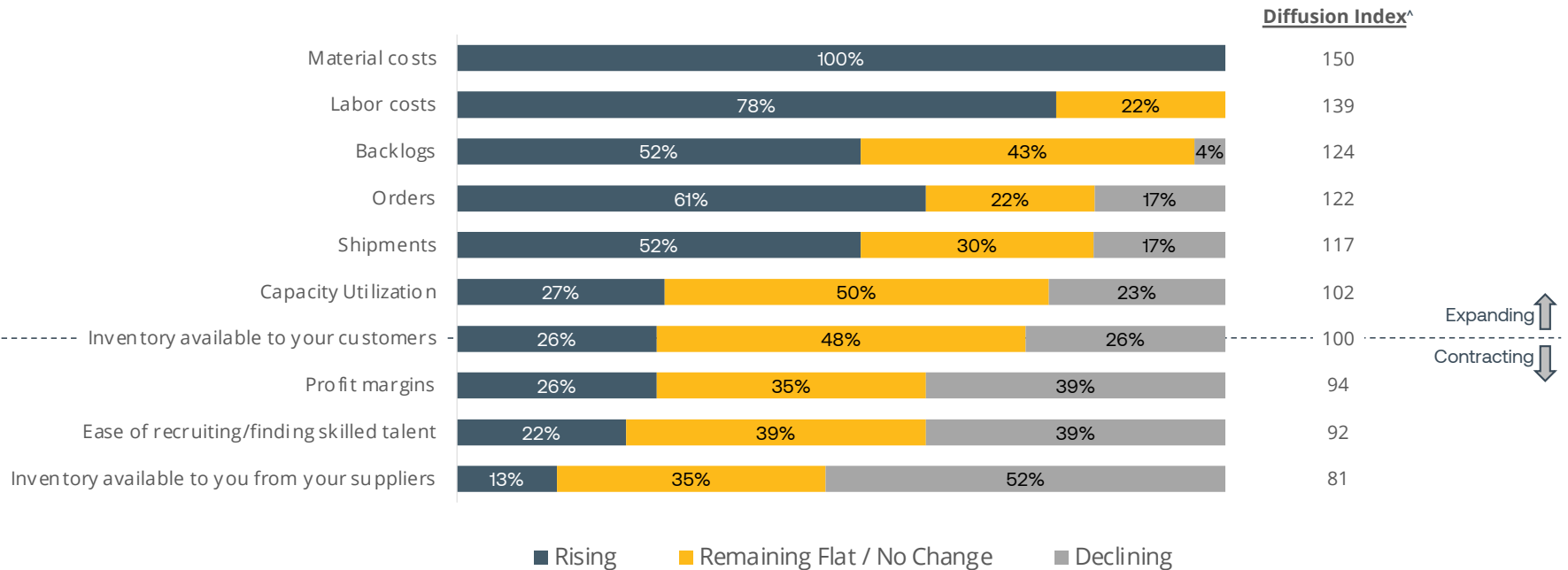
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The View From Companies Primarily Operating Globally



Current Direction of Key Business Indicators

-- Primary Region: Global --



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The Outlook for the Next 6 Months: Continued Challenging Conditions

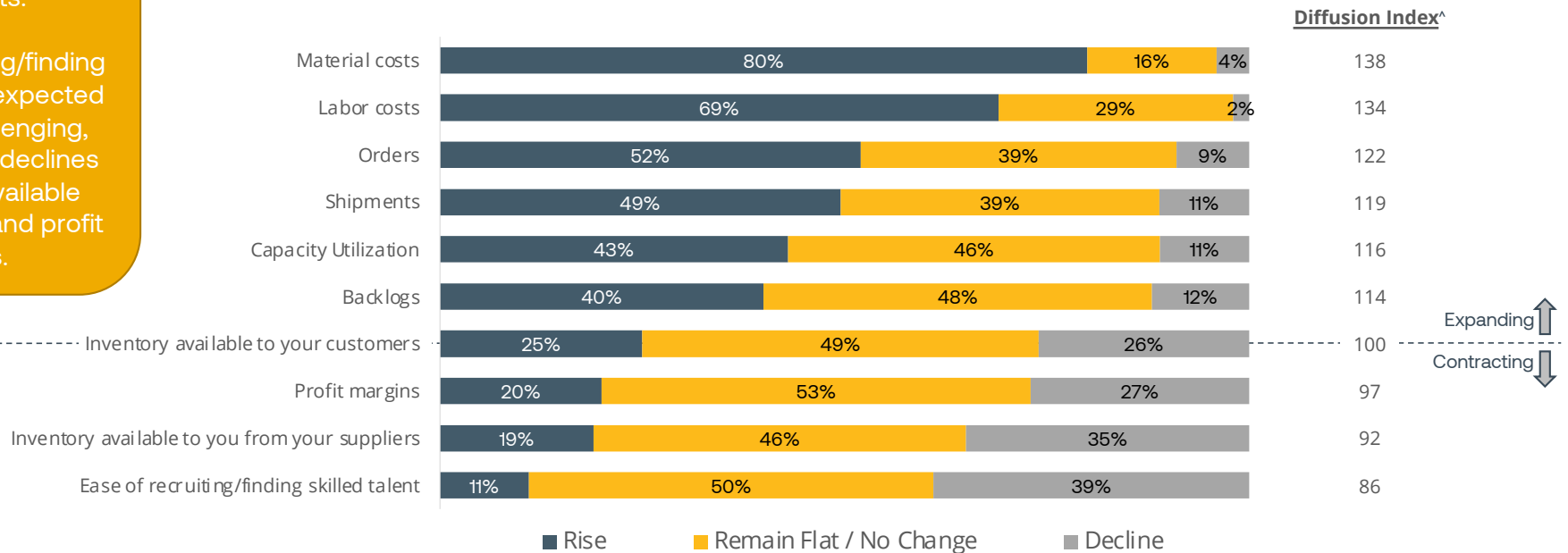


Over the next six months, manufacturers expect to see continued increase in material and labor costs.

Ease of recruiting/finding skilled talent is expected to remain challenging, with continued declines in inventory available from suppliers and profit margins.

Anticipated Direction of Key Business Indicators – Next Six Months

-- Total --



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Regional Differences in the Outlook



- **Among firms operating Globally, shipments are expected to rise at a higher rate vs. Europe and APAC**
 - 74% of Global manufacturers expect shipments to rise in the next six months, compared to only 39% of manufacturers in Europe and 41% of those in APAC.
- **Ease of recruitment is expected to improve more so in the next six months among firms operating in APAC when compared to North American and European manufacturers**
 - 29% of APAC manufacturers expect ease of recruitment to improve, which compares to only 7% of manufacturers in North America and 0% of those in Europe.
- **At the same time, material costs are expected to decline more so among firms operating in APAC vs. North American firms**
 - 12% of manufacturers in APAC anticipate material costs to decline in the next six months, whereas only 1% of manufacturers in North America expect to see the same.

Regional Differences in the Outlook

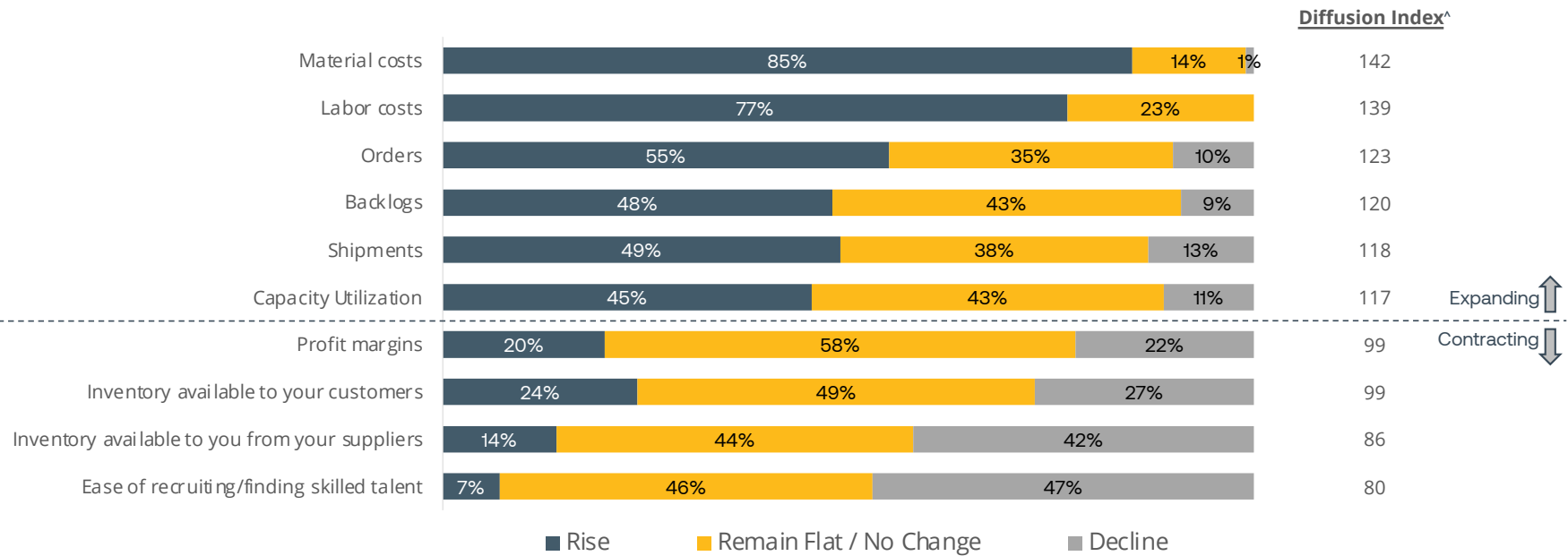


- **Labor costs are also expected to decline over the next six months at a faster pace among firms in APAC when compared to North American firms**
 - 7% of manufacturers in APAC expect labor costs to decline in the next six months vs. 0% among North American manufacturers.
- **Outlook concerning inventories available from suppliers is more positive among manufacturers operating Globally compared to North American and European manufacturers**
 - 39% of Global manufacturers expect inventory available from suppliers to rise in the next six months vs. a significantly lower 14% in North America and 10% in Europe.

The View From Companies Primarily Operating in North America



Anticipated Direction of Key Business Indicators – Next Six Months -- Primary Region: North America --

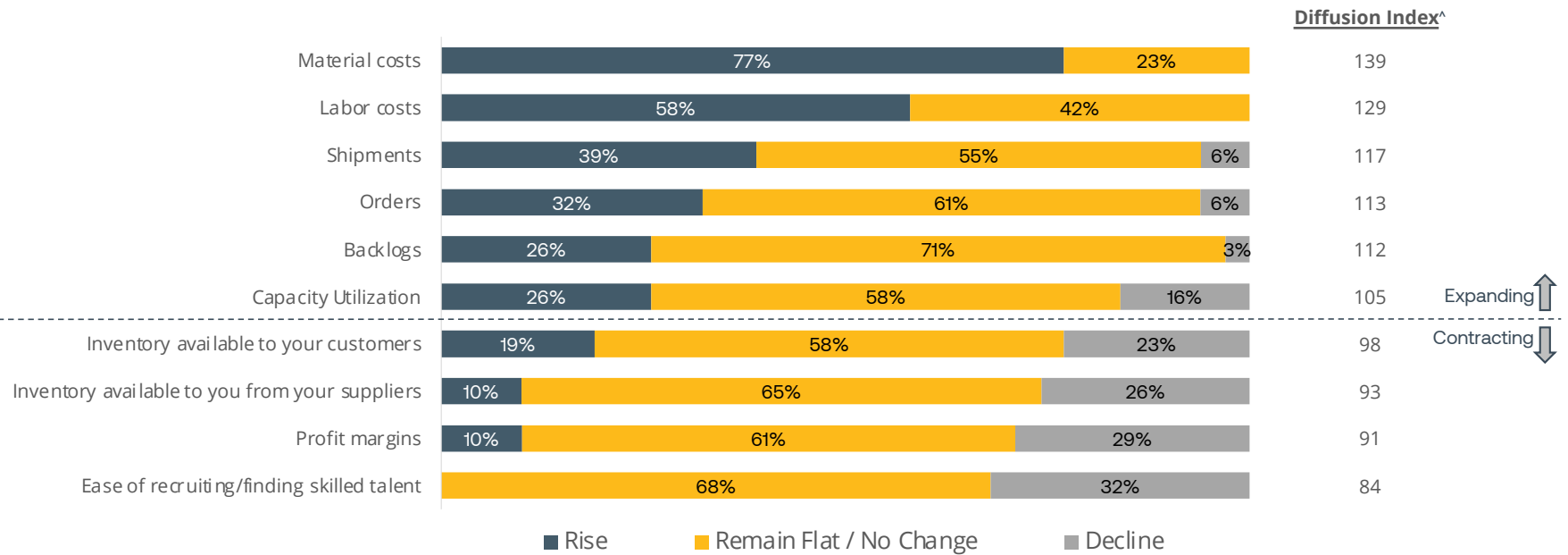


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The View From Companies Primarily Operating in Europe



Anticipated Direction of Key Business Indicators – Next Six Months -- Primary Region: Europe --



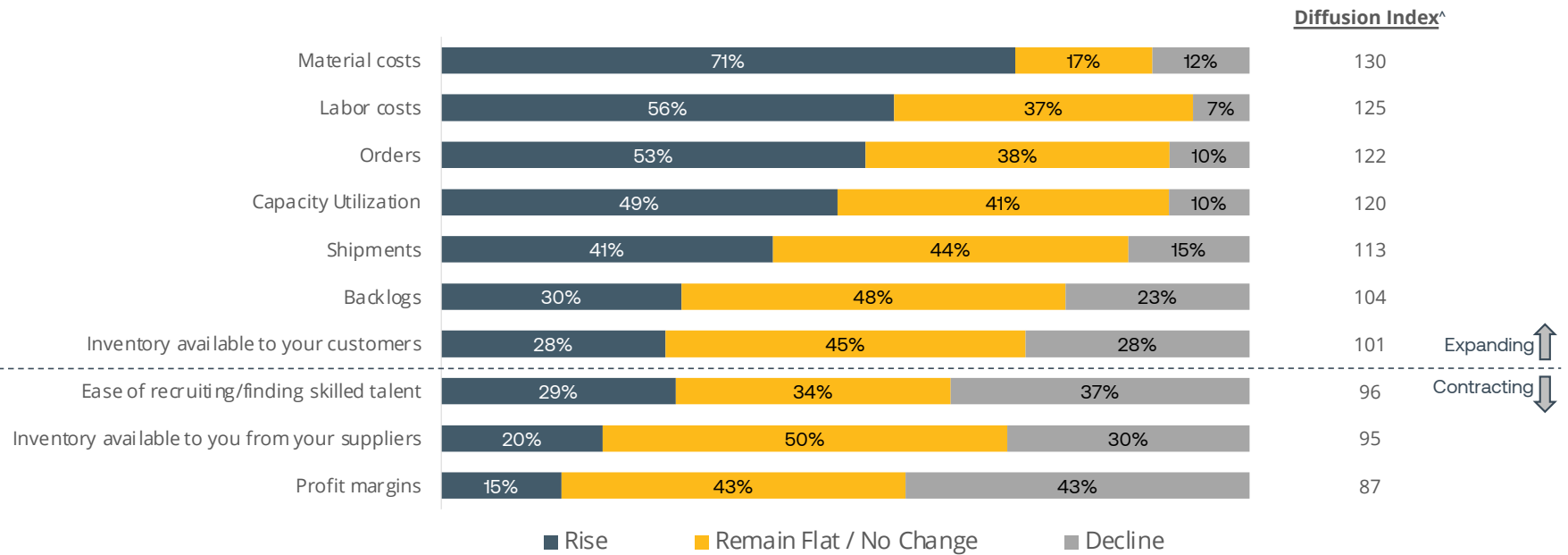
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The View From Companies Primarily Operating in APAC



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: APAC --



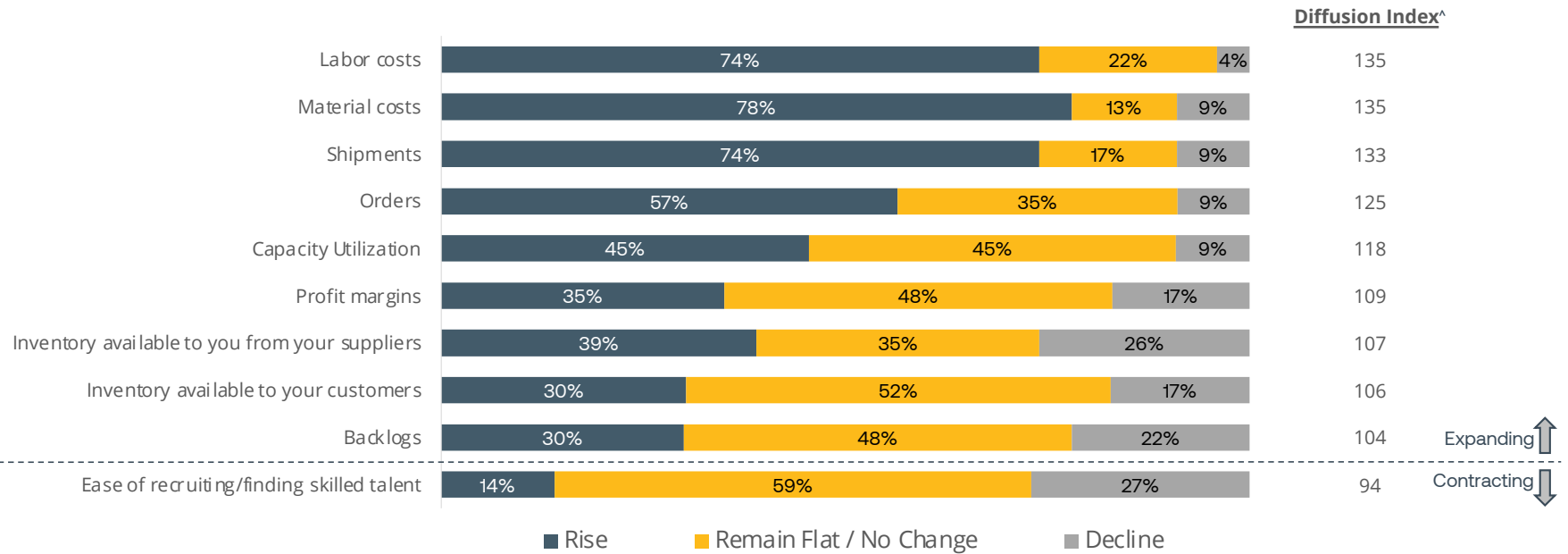
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The View From Companies Primarily Operating Globally



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: Global --



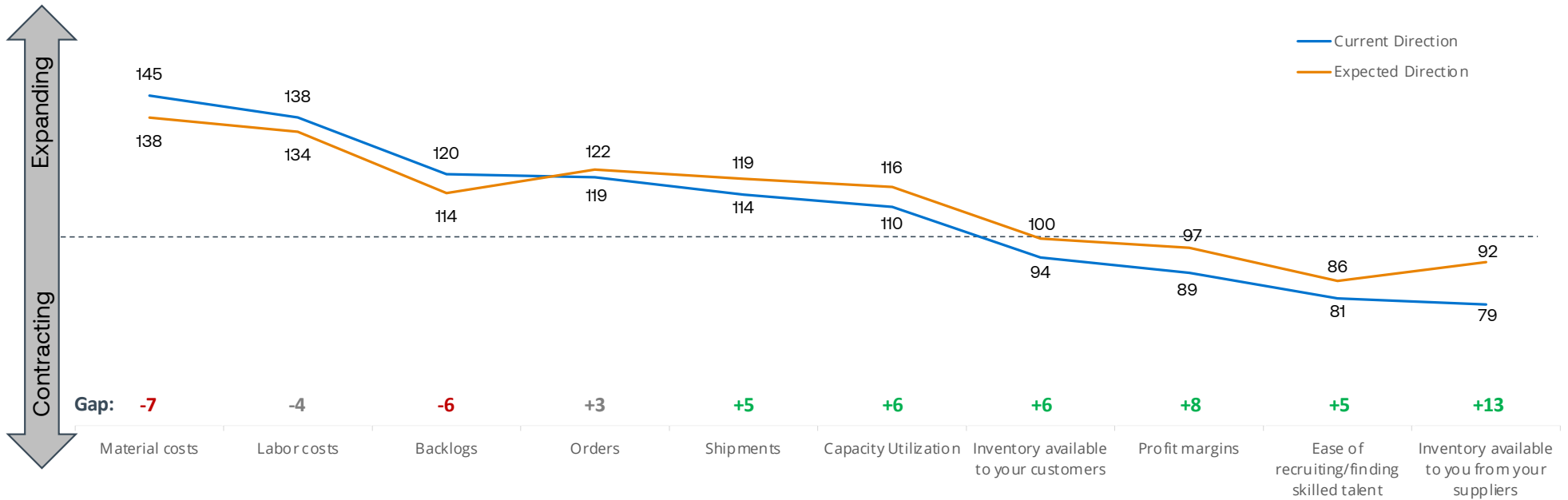
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Labor Costs and Orders are Expected to Remain Relatively Stable in the Next Six Months



Although manufacturers anticipate material costs and backlogs to decline, they do expect to see improvement regarding inventories, profit margins, capacity utilization, ease of recruitment, and shipments.

Direction of Key Business Indicators – Diffusion Index[^]
-- Total --

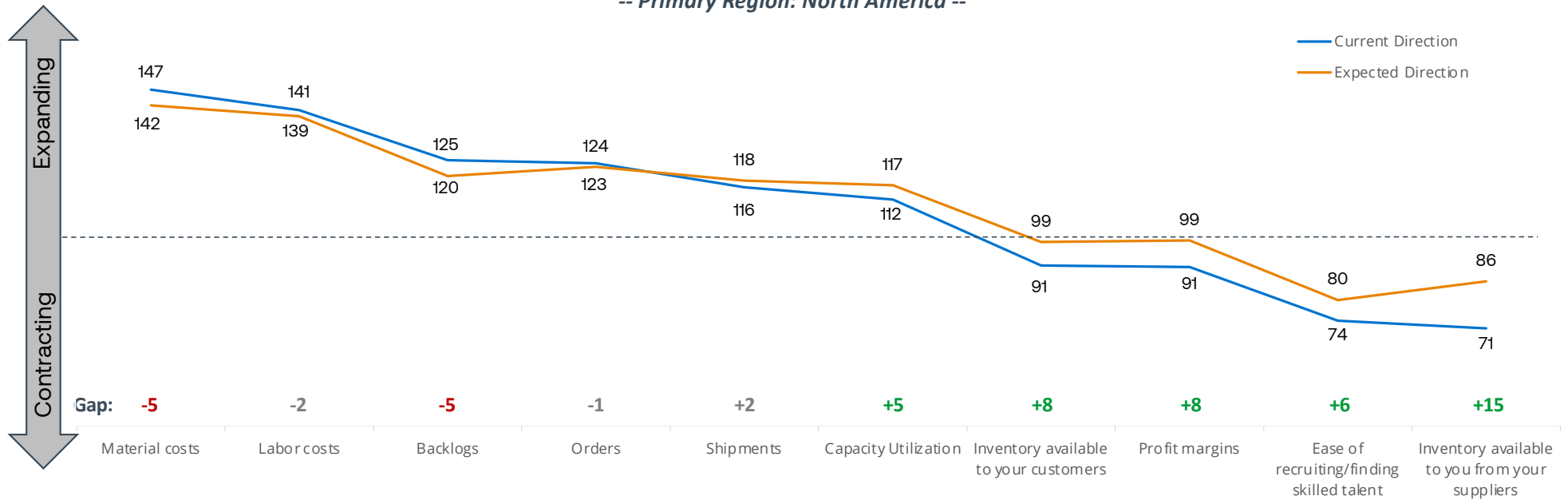


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The View From Companies Primarily Operating in North America



Direction of Key Business Indicators – Diffusion Index[^]
 -- Primary Region: North America --

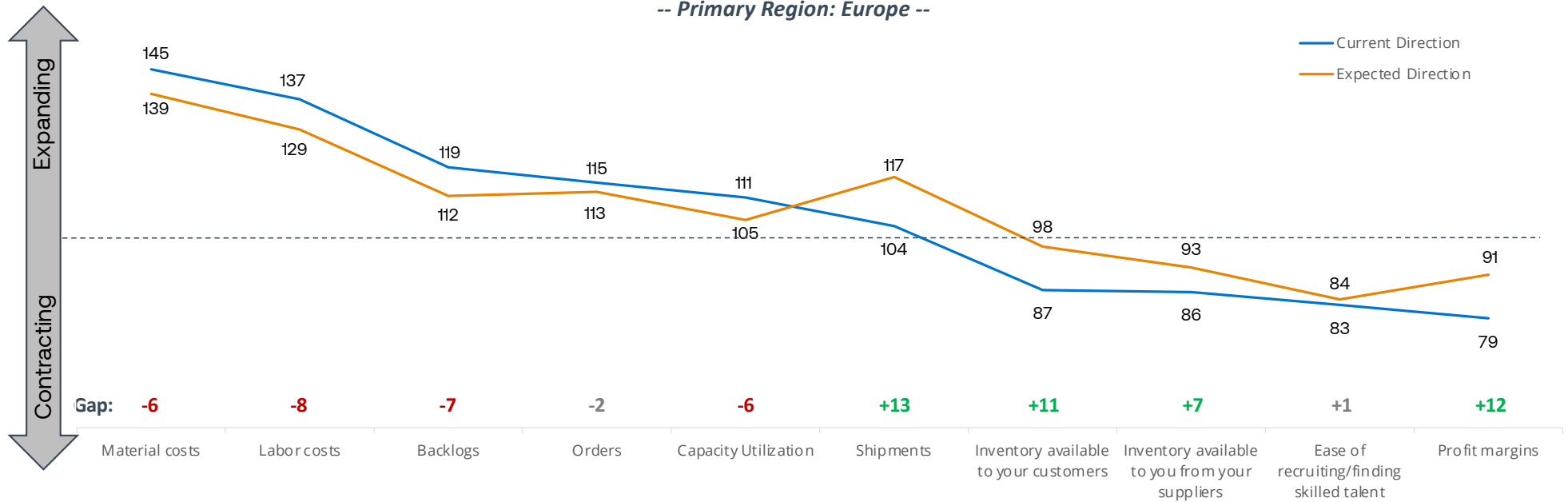


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The View From Companies Primarily Operating in Europe



Direction of Key Business Indicators – Diffusion Index[^]
 -- Primary Region: Europe --

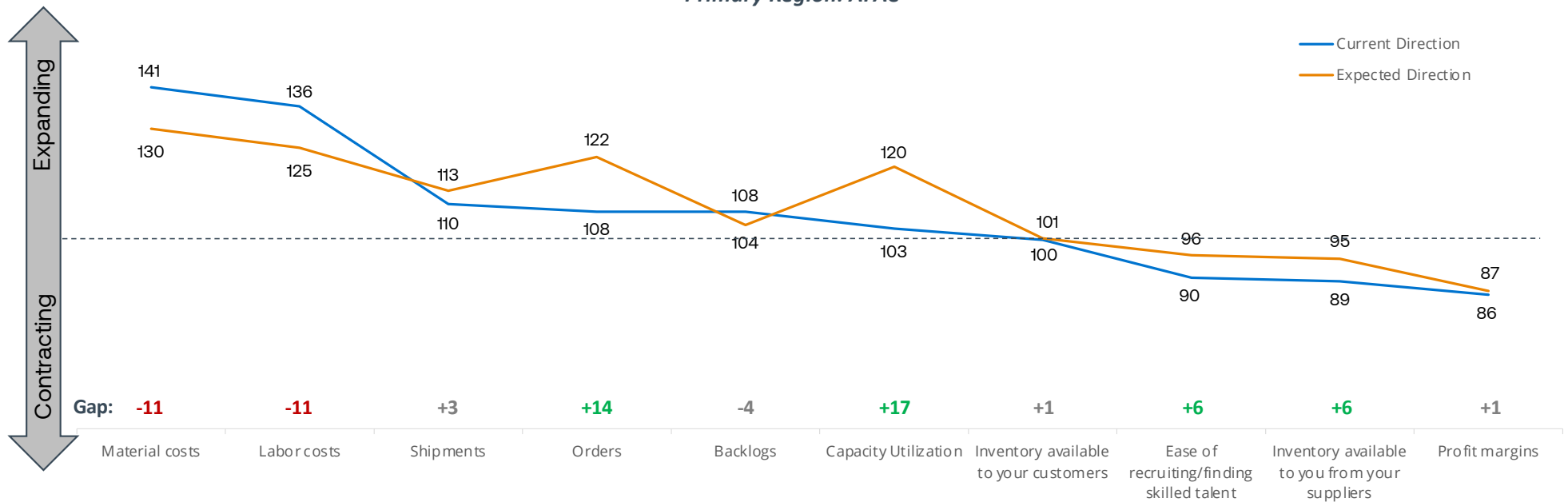


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The View From Companies Primarily Operating in APAC



Direction of Key Business Indicators – Diffusion Index[^]
 -- Primary Region: APAC --

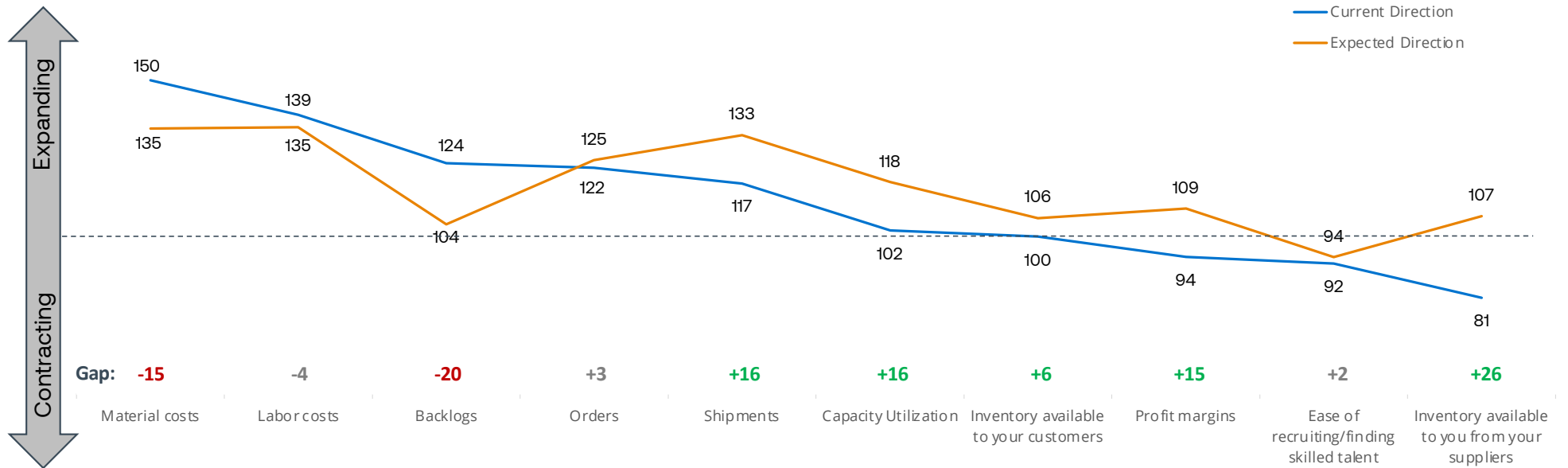


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The View From Companies Primarily Operating Globally



Direction of Key Business Indicators – Diffusion Index[^]
 -- Primary Region: Global --



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May 2022 Special Questions

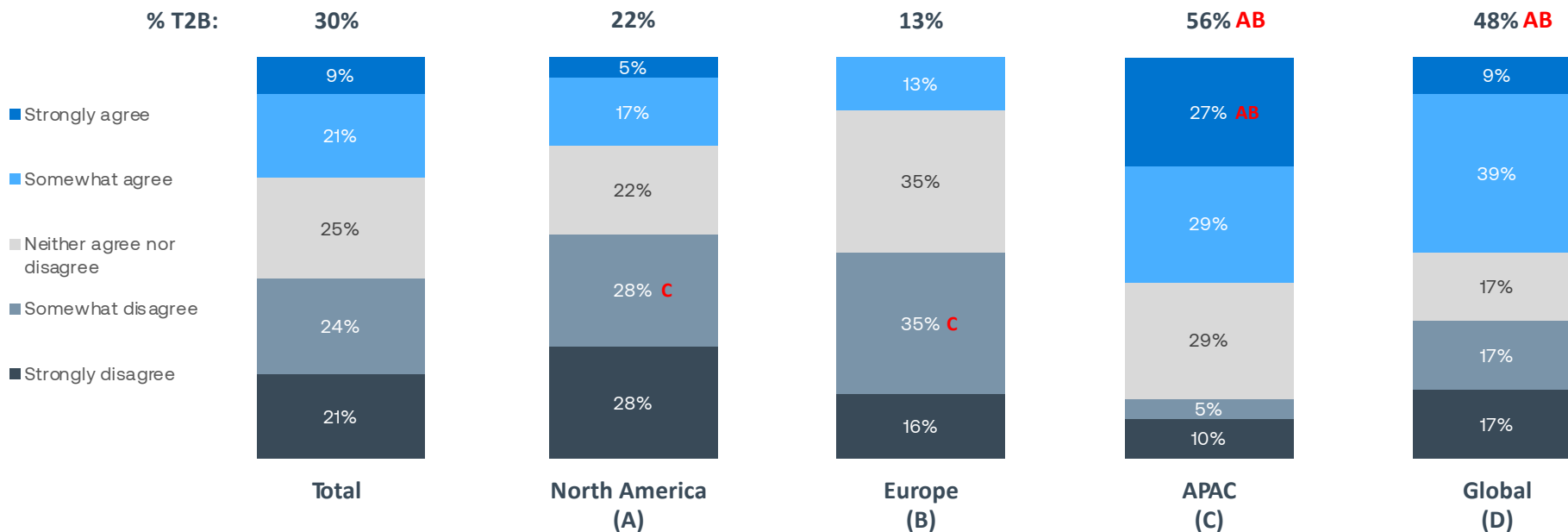
Three in Ten Manufacturers Feel Their Government is Moving With Appropriate Breadth to Spur Innovation and Capacity Within the Semiconductor Industry



Notably, manufacturers in APAC and firms operating Globally are more likely to agree with this sentiment vs. their counterparts in North America and Europe.

Agreement With Statement:

My government is moving with appropriate breadth to spur innovation and capacity within the semiconductor industry.



A/B/C/D Statistically Significant at 90% Confidence Level

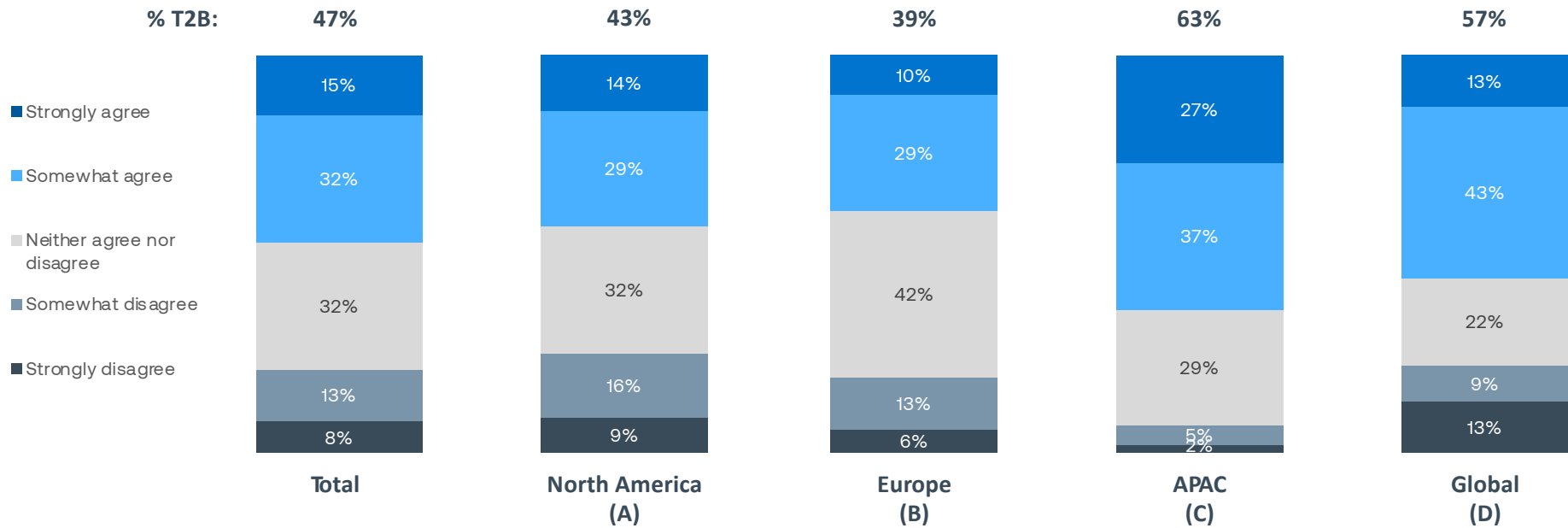
Nearly Half of Manufacturers Agree That Government Semiconductor Goals are Necessarily Tied to Investments in the Wider Electronics Manufacturing Ecosystem



While agreement is directionally higher among firms operating in APAC and Globally, there are no significant differences between regions.

Agreement With Statement:

Government semiconductor goals are necessarily tied to investments in the wider electronics manufacturing ecosystem.



A/B/C/D Statistically Significant at 90% Confidence Level

Appendix

Current Conditions Diffusion Indices

Month-to-Month Comparisons



	October 2021	November 2021	December 2021	January 2022	February 2022	March 2022	April 2022	May 2022
Material costs	144	144	145	145	143	142	146	145
Labor costs	133	136	135	137	138	138	134	138
Orders	127	124	123	123	120	124	121	119
Backlogs	125	122	124	124	122	119	114	120
Sales*	124	123	122	--	--	--	--	--
Shipments^	--	--	--	117	112	115	115	114
Capacity utilization	114	115	110	114	111	113	114	110
Profit margins	96	91	90	87	82	86	85	89
Inventory available to your customers	89	92	87	91	88	109	94	94
Ease of recruiting/finding skilled talent	77	80	77	78	80	78	79	81
Inventory available to you from your suppliers	73	78	73	77	78	78	83	79

*Removed January 2022

^Added January 2022

Δ+5 points or more vs. previous month

Δ-5 points or more vs. previous month

Outlook Diffusion Indices

Month-to-Month Comparisons



	October 2021	November 2021	December 2021	January 2022	February 2022	March 2022	April 2022	May 2022
Material costs	136	139	138	139	142	139	140	138
Labor costs	131	135	133	133	137	136	135	134
Orders	126	128	126	125	121	123	121	122
Backlogs	112	116	116	120	113	110	109	114
Sales*	128	129	127	--	--	--	--	--
Shipments [^]	--	--	--	120	119	121	117	119
Capacity utilization	119	118	116	118	118	116	116	116
Profit margins	103	100	96	92	94	97	94	97
Inventory available to your customers	100	100	99	97	99	103	101	100
Ease of recruiting/finding skilled talent	91	88	86	82	87	86	88	86
Inventory available to you from your suppliers	95	92	88	90	93	94	93	92

*Removed January 2022

[^]Added January 2022

Δ+5 points or more vs. previous month

Δ-5 points or more vs. previous month

Methodology



- > Each month, IPC surveys executives in the electronics manufacturing sector across the globe with the goal of assessing the current state of the industry.
- > The results contained herein are based upon the findings of IPC's The Current State of Electronics Manufacturing Survey, which was fielded between the dates of April 11 to April 28, 2022.





Questions? Please contact:

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