



BUILD ELECTRONICS BETTER

The Current Sentiment of the Global Electronics Manufacturing Supply Chain

Monitoring the Pulse of the Global Electronics Industry

December 2022

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Executive Summary



> Industry sentiment settles to close out the year

> Demand remain solid, but closes the year on a lighter note

- The Orders Index began the year at 123, strongly in expansionary territory, it closes the year at 107. This is still solidly in expansionary territory but down for a second consecutive month and the lowest reading this year.
- Similarly, the Backlogs Index began the year at 124 and closes the year at 105. Still in expansionary territory but also the lowest level of the year.
- The Shipments Index and the Capacity Utilization Index close the year at 109 and 105 respectively. Both still in expansionary territory suggesting production remains strong and orders are going out.

> Supply chain constraints have improved notably since the start of the year

- The Inventories Available to Customers (IAC) Index has improved throughout the year. It began the year in contractionary territory but ends the year at 105 suggesting inventories continue to grow.
- Likewise, the Inventories Available to Suppliers (IAS) Index began the year in strongly contracting territory highlighting the depth of supply chain shortages. This month it moves to 102, the first month in expansionary territory in the history of the index.

> Costs Remain Elevated

- The Materials Costs Index dropped one point last month, a new all-time low, but the index remains higher suggesting cost pressures continue. The Labor Costs Index fell three points but also remains in expansionary territory.

Current Conditions for the Electronics Supply Chain

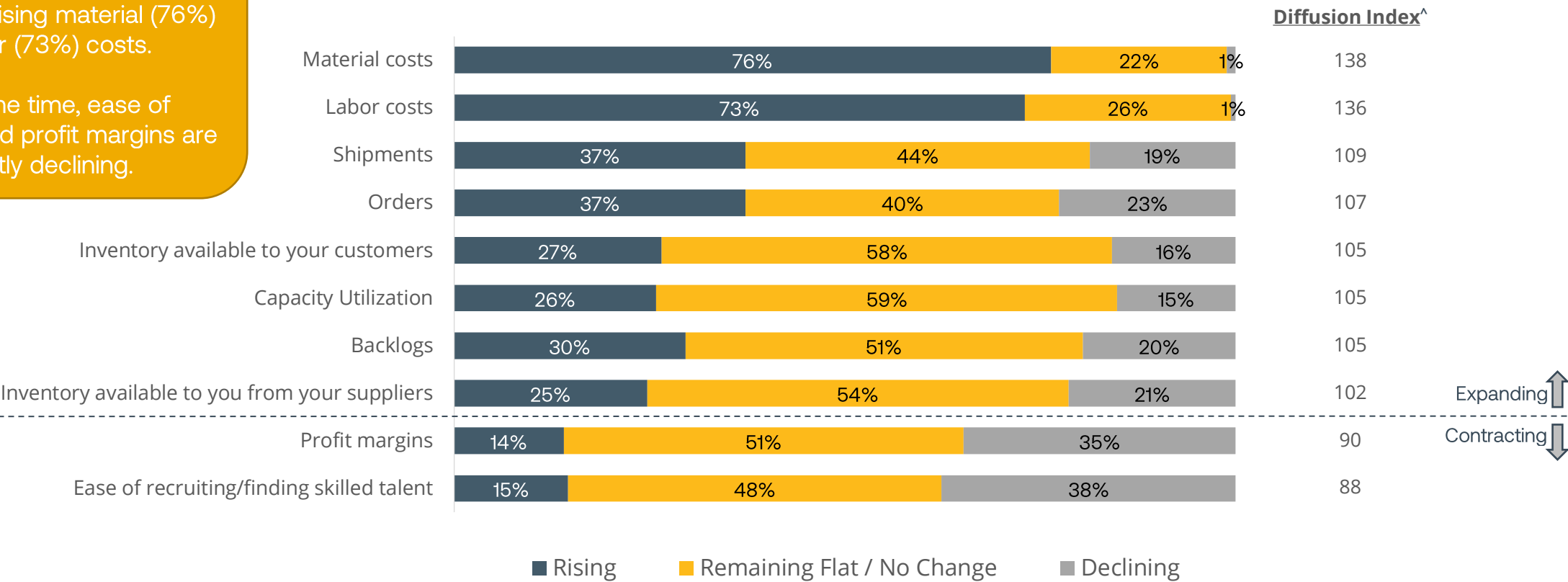


Three-fourths of electronics manufacturers are currently experiencing rising material (76%) and labor (73%) costs.

At the same time, ease of recruitment and profit margins 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



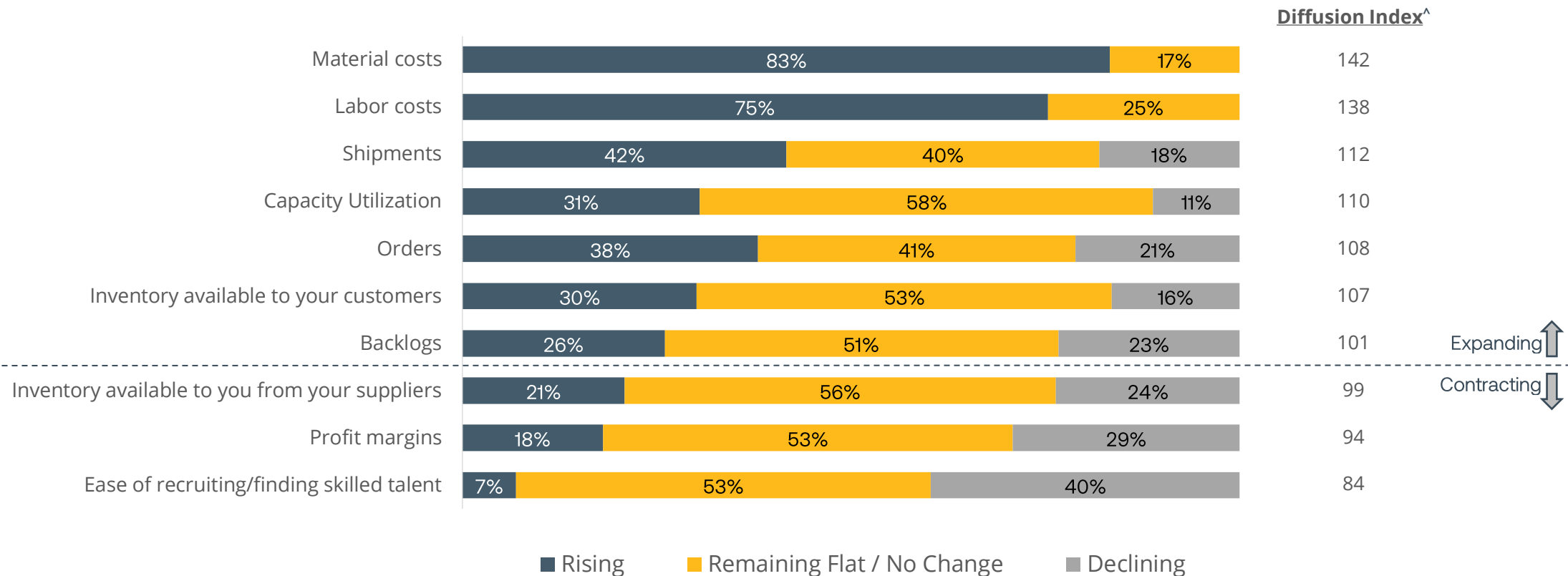
- Backlogs are declining at a higher rate among firms operating in North America, APAC, and Globally when compared to firms in Europe.
 - A quarter of firms operating in North America (23%), APAC (27%), and Globally (27%) report a current decline in backlogs, while only 6% of firms in Europe are experiencing the same.

The View From Companies Primarily Operating in North America



Current Direction of Key Business Indicators

-- Primary Region: North America --

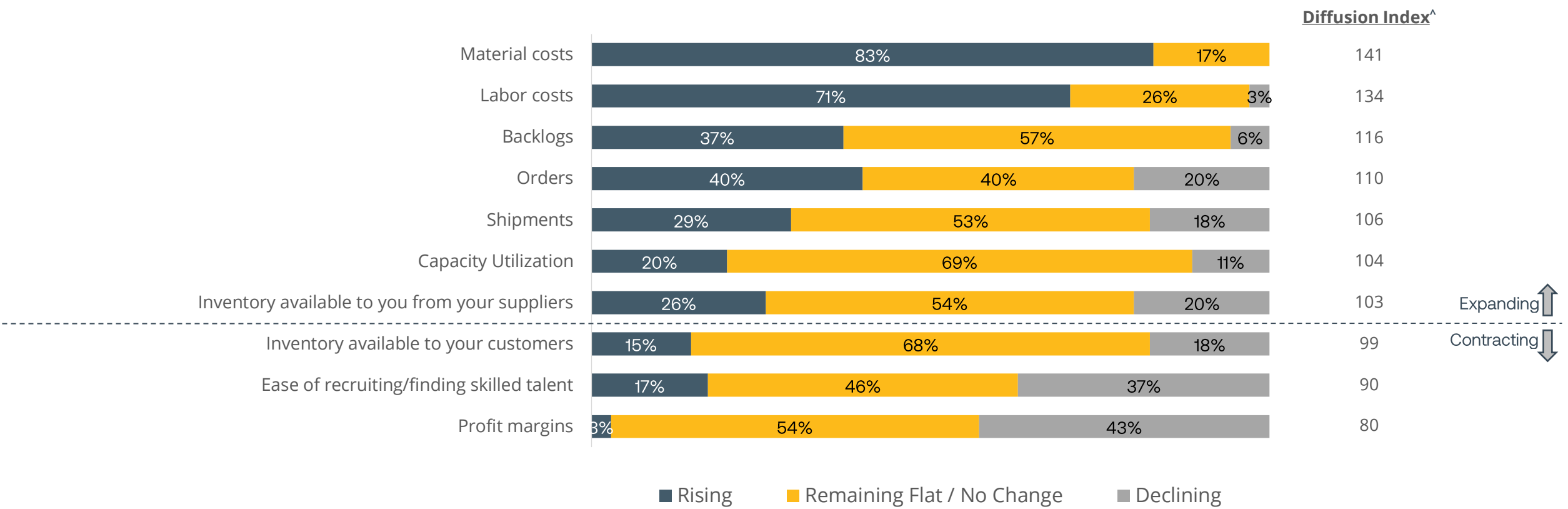


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The View From Companies Primarily Operating in Europe



Current Direction of Key Business Indicators
-- Primary Region: Europe --



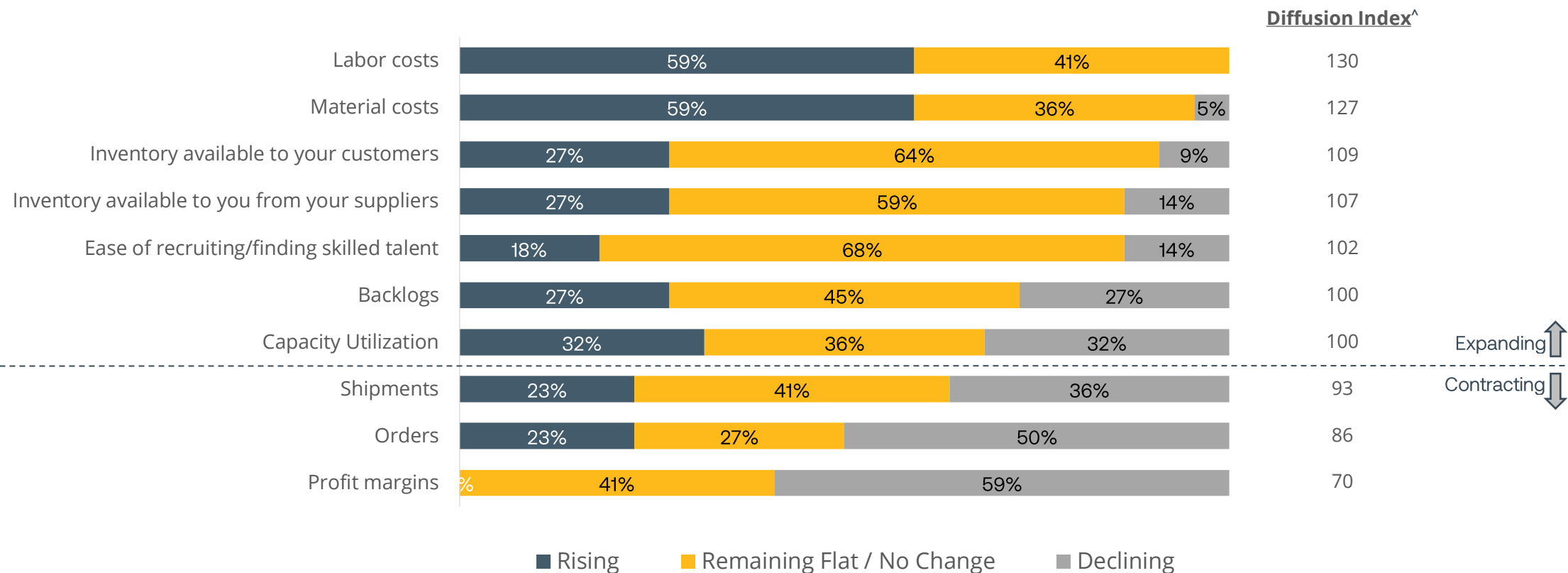
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The View From Companies Primarily Operating in APAC



Current Direction of Key Business Indicators

-- Primary Region: APAC --



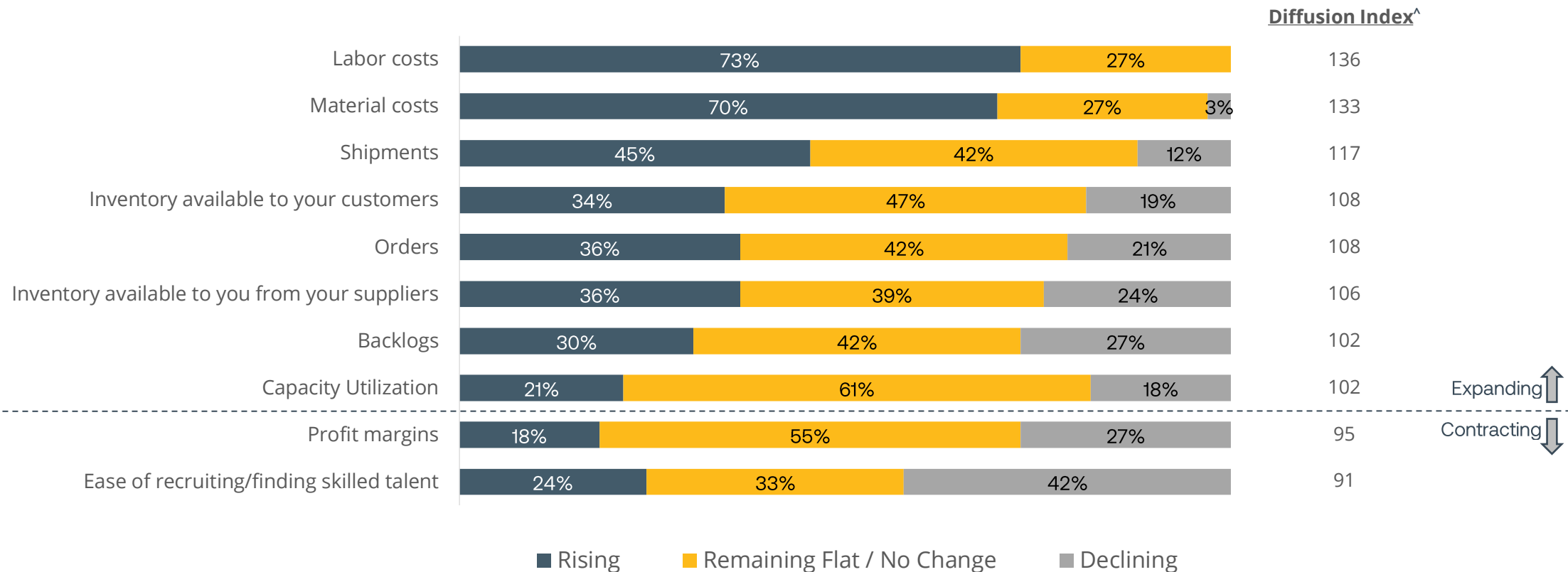
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The View From Companies Primarily Operating Globally



Current Direction of Key Business Indicators

-- Primary Region: Global --



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The Outlook for the Next 6 Months: Continued Challenging Conditions

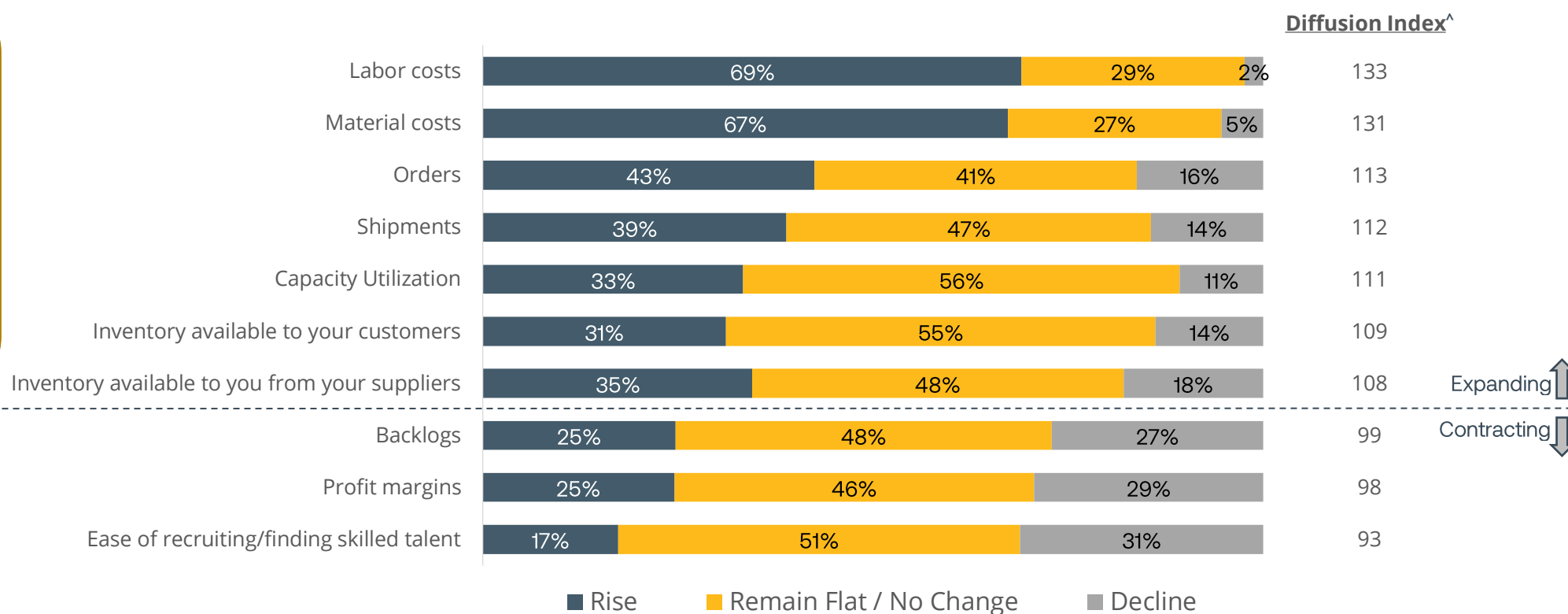


Anticipated Direction of Key Business Indicators – Next Six Months

-- Total --

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

Ease of recruitment and profit margins are likely to remain challenging, along with backlogs, which are expected to further decline.



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Regional Differences in The Outlook



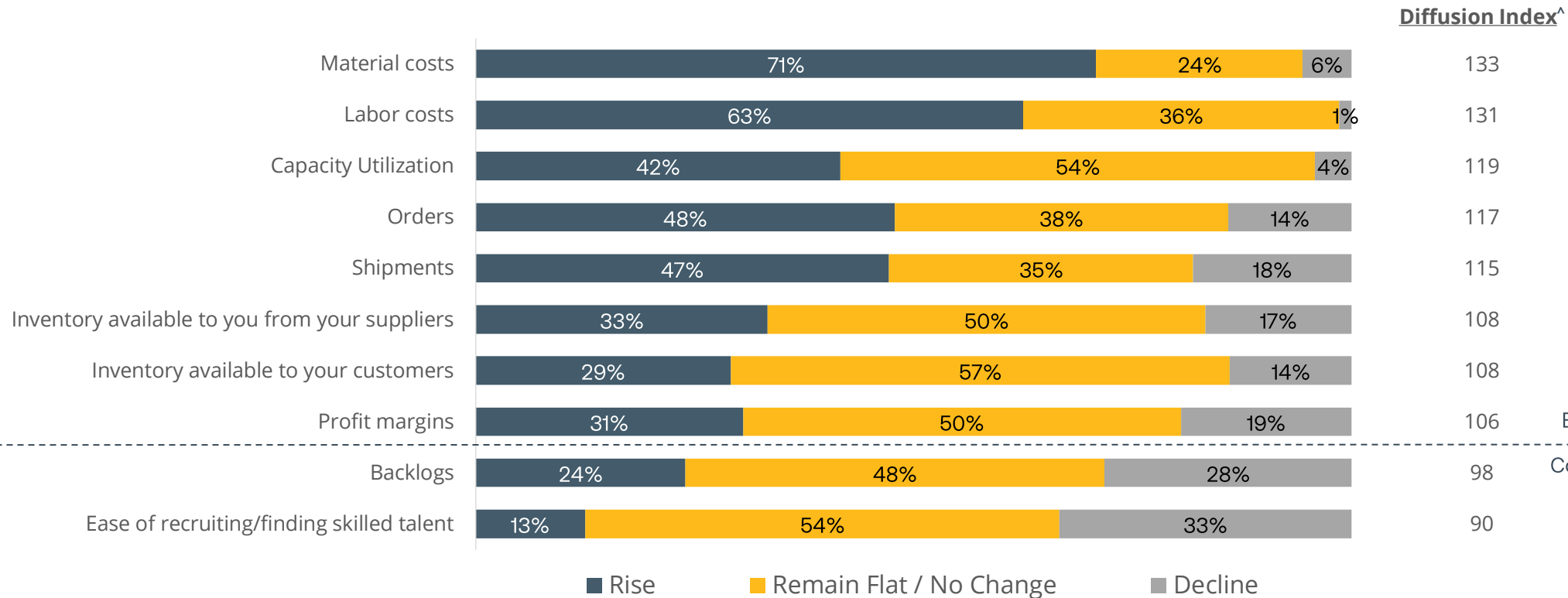
- **Orders are expected to decline more so among firms in APAC when compared to those in all other regions.**
 - Two-fifths (41%) of manufacturers in APAC expect orders to decline over the next six months, which is significantly higher than expectations reported among firms operating in North America (14%), Europe (14%), and Globally (9%).
- **Global manufacturers and those in North America anticipate profit margins to rise at a faster pace vs. firms in APAC.**
 - While 28% of Global manufacturers and 31% of North American manufacturers expect profit margins to rise, no (0%) manufacturers in APAC are expecting to see an increase. Instead, more than half (55%) of APAC manufacturers are expecting a decline over the next six months, which compares to a much lower 19% expecting the same in North America.
- **Labor costs are expected to rise more so for firms operating in Europe vs. all other regions.**
 - 89% of European manufacturers anticipate labor costs will rise over the next six months, which compares to significantly lower rates among firms operating in North America (63%), APAC (64%), and Globally (64%), regions in which labor costs are instead expected to remain stable.
- **Firms in APAC are anticipating a greater decline in capacity utilization vs. North American firms.**
 - More than a quarter (27%) of APAC firms expect capacity utilization to decline over the next six months, while only 4% of firms in North America expect the same.

The View From Companies Primarily Operating in North America



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: North America --



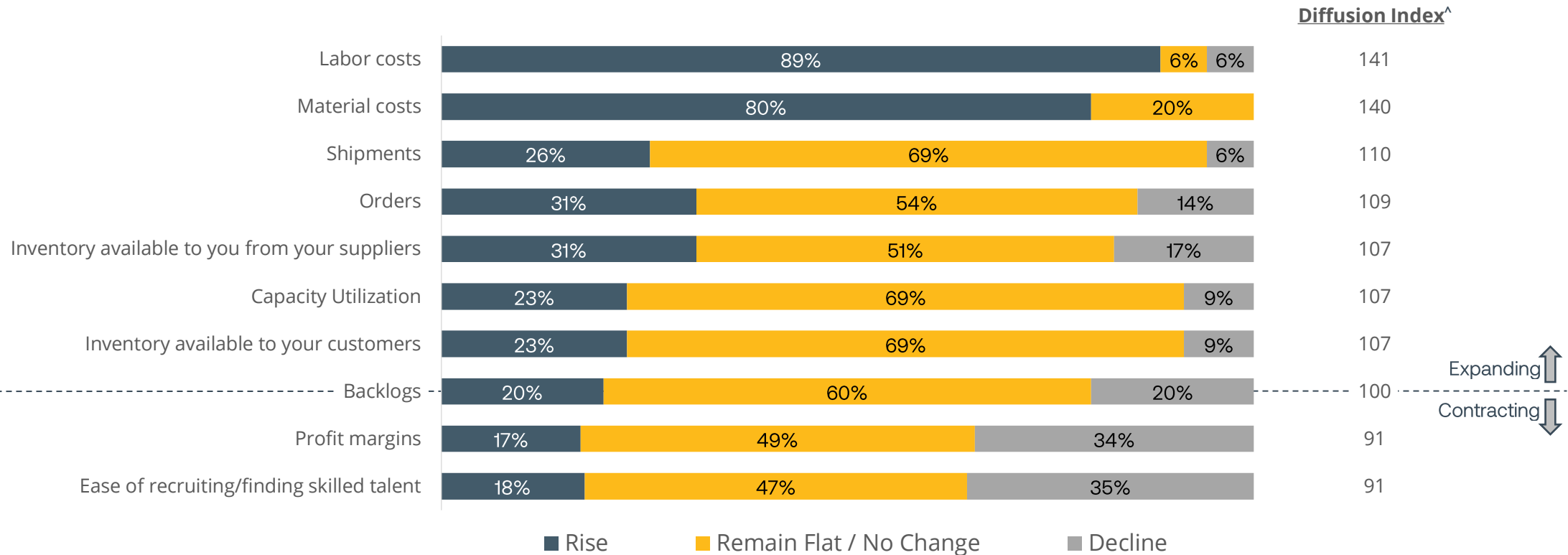
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The View From Companies Primarily Operating in Europe



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: Europe --



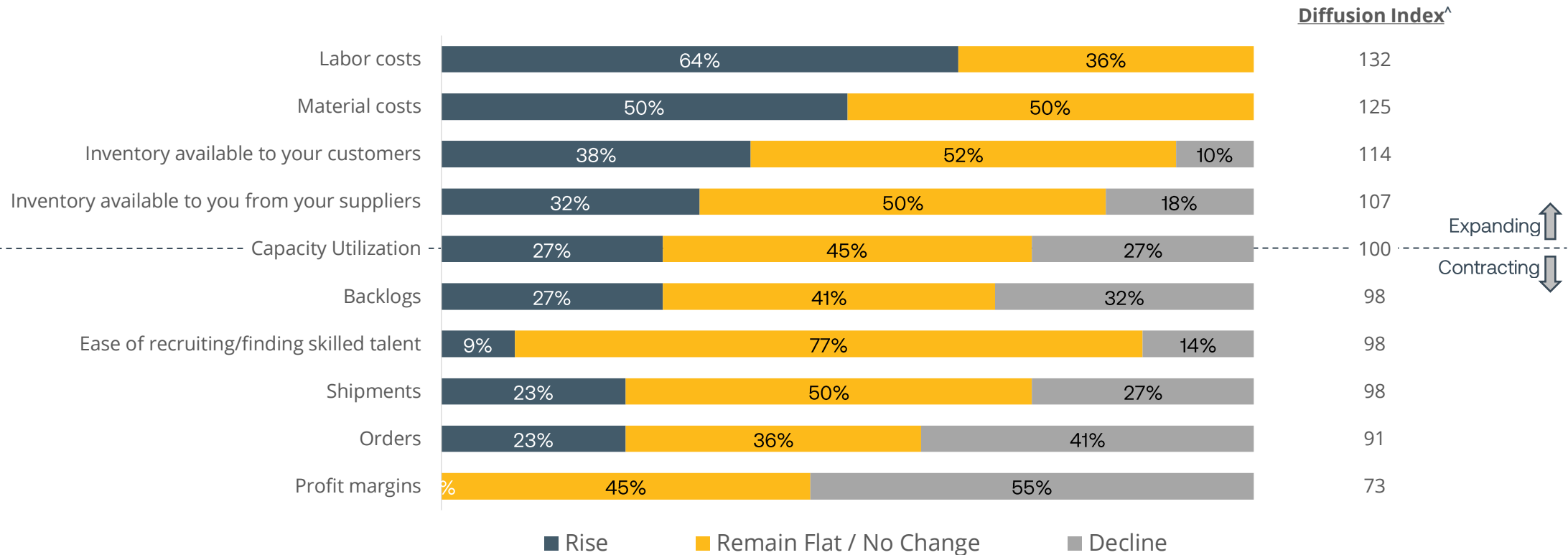
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The View From Companies Primarily Operating in APAC



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: APAC --



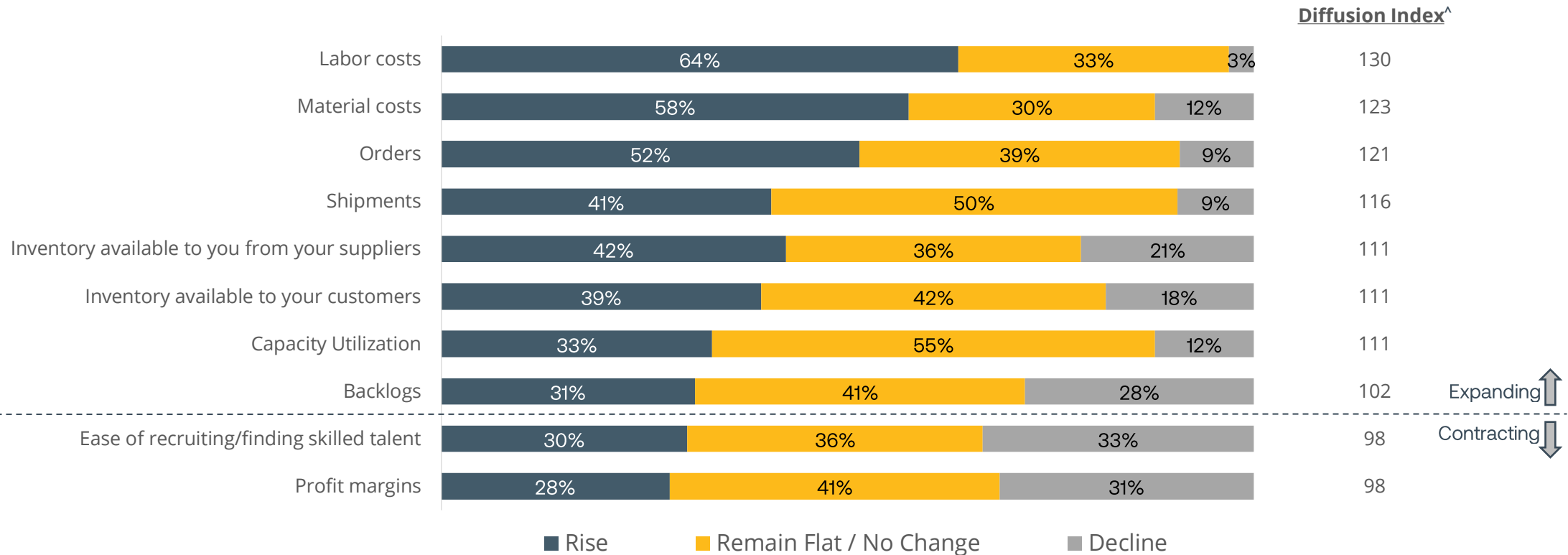
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The View From Companies Primarily Operating Globally



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: Global --

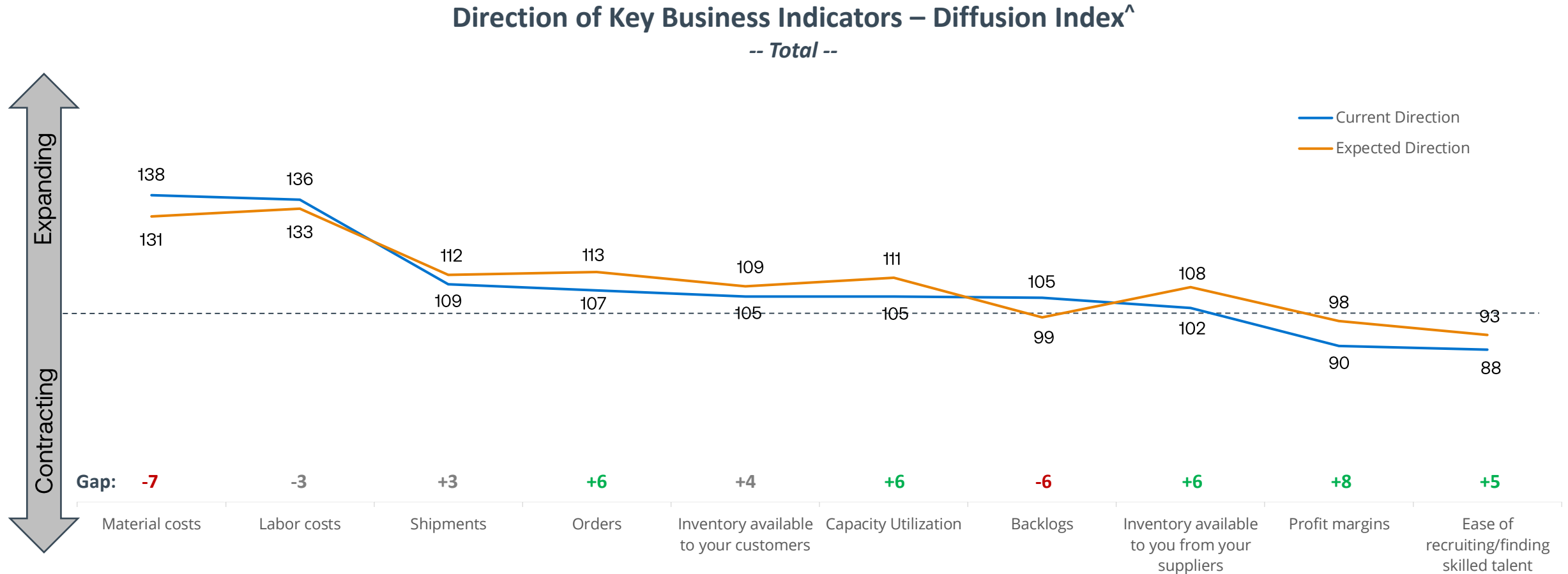


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Labor Costs, Shipments, and Customer Inventory Expected to Remain Relatively Stable Over the Next Six Months



Manufacturers anticipate material costs and backlogs will decline, while expecting profit margins, supplier inventory, capacity utilization, orders, and ease of recruitment to rise.



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The View From Companies Primarily Operating in North America



Direction of Key Business Indicators – Diffusion Index[^]

-- Primary Region: North America --



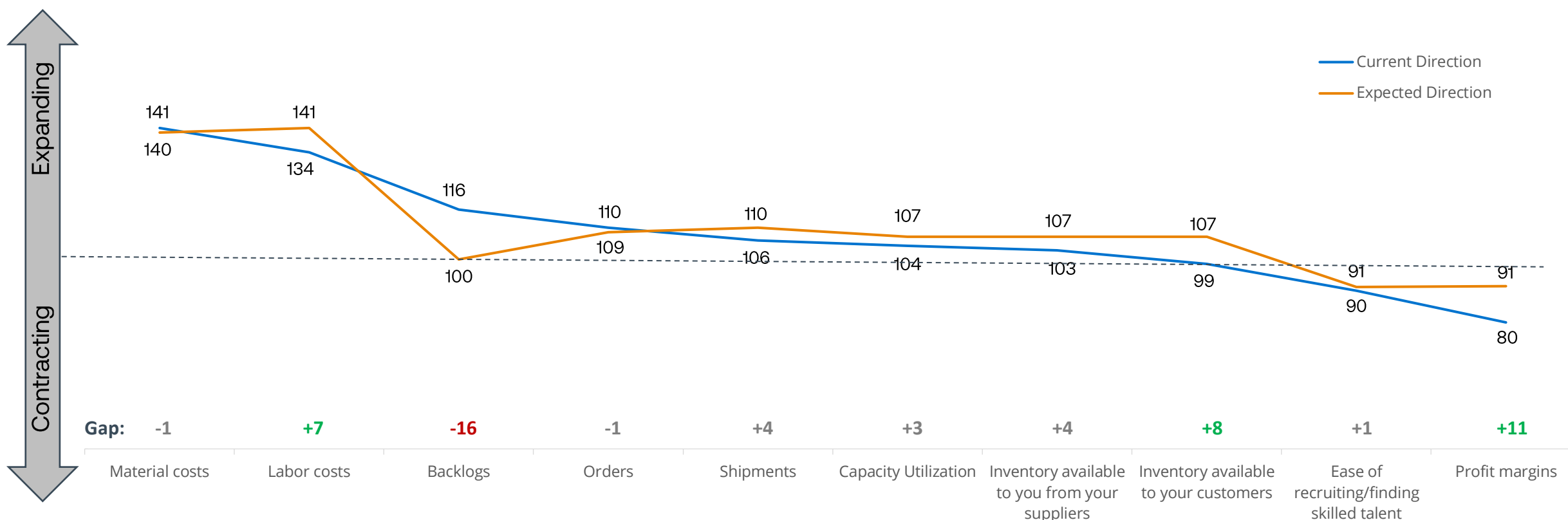
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The View From Companies Primarily Operating in Europe



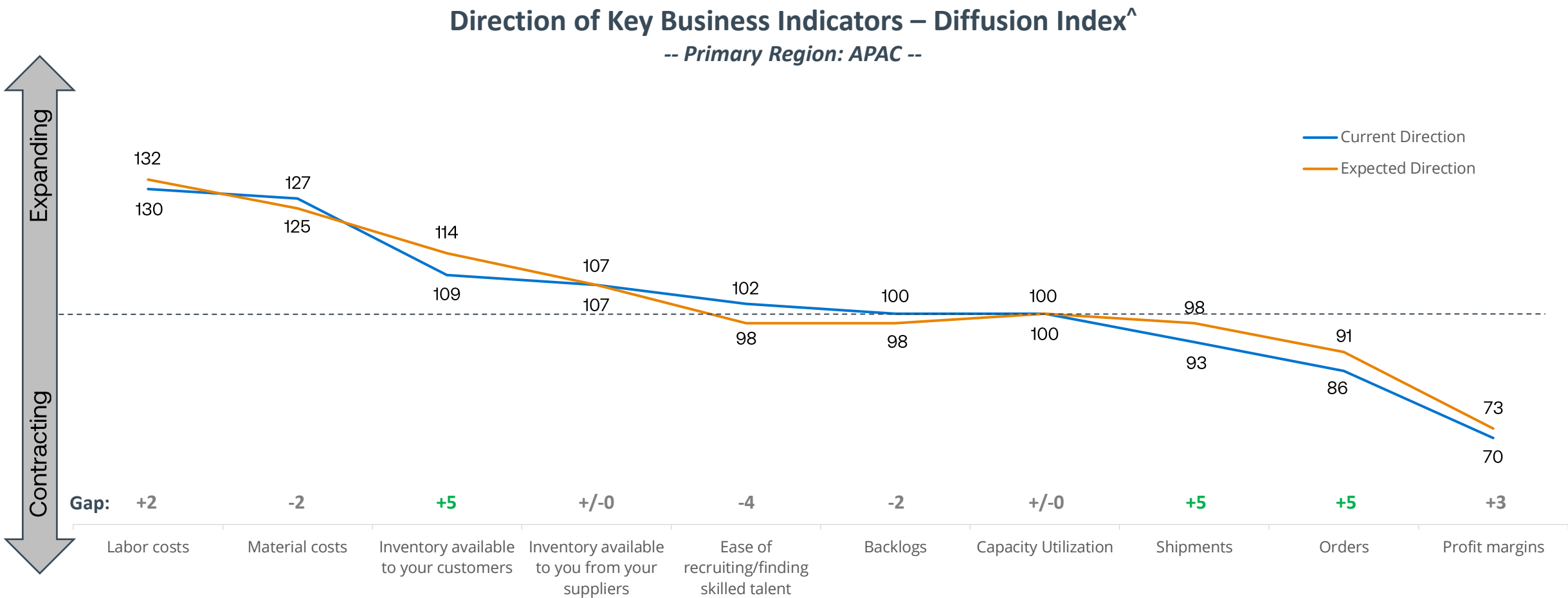
Direction of Key Business Indicators – Diffusion Index[^]

-- Primary Region: Europe --



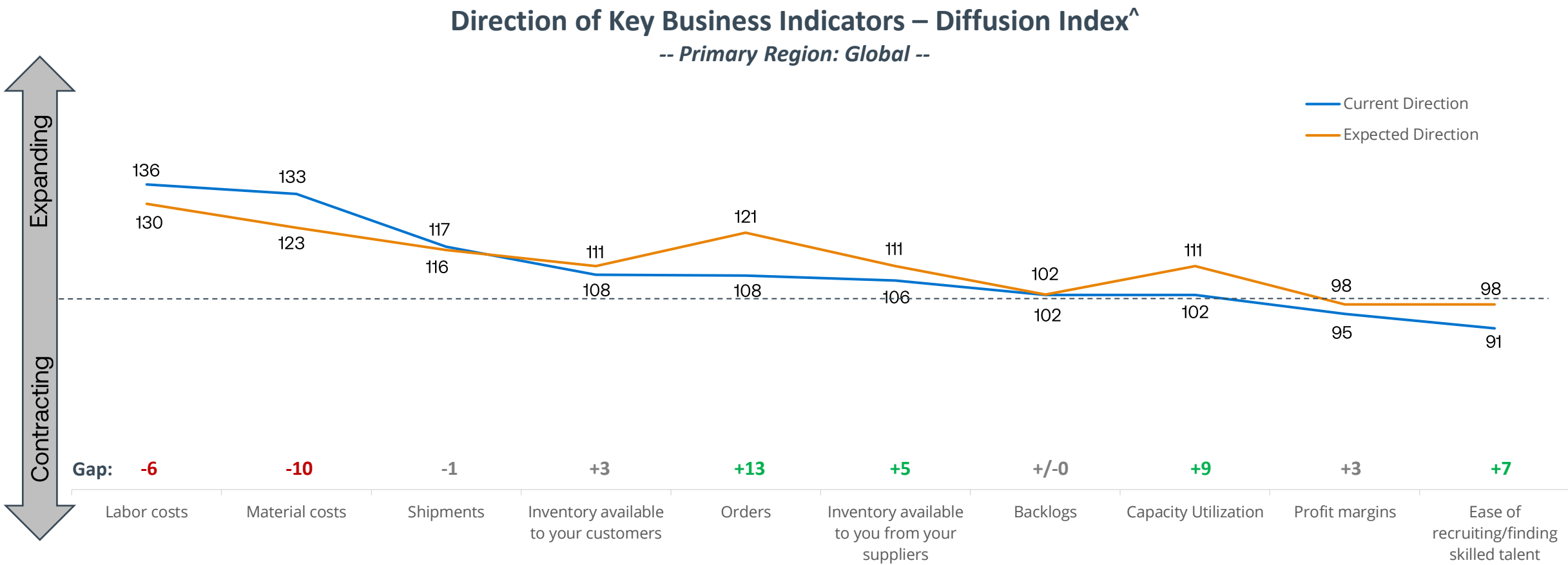
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The View From Companies Primarily Operating in APAC



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

The View From Companies Primarily Operating Globally



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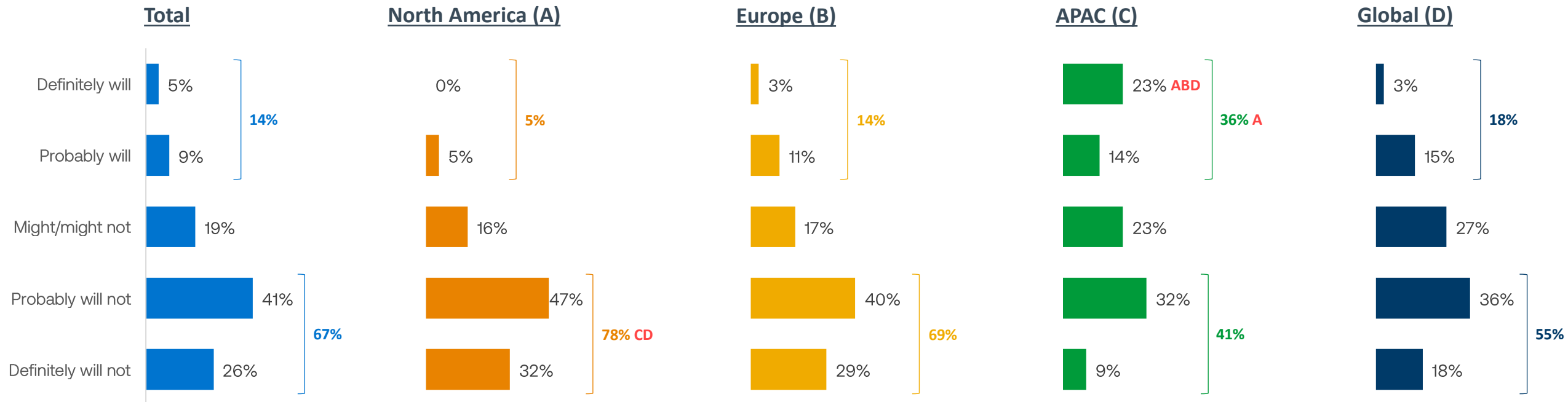
December 2022 Special Questions

The Majority of Manufacturers Do Not Expect Their Company to Reduce Production Capacity in 2023



However, likelihood to reduce production capacity is significantly higher in APAC when compared to all other regions, with likelihood being lowest in North America.

Likelihood That Company Will Reduce Production Capacity in 2023



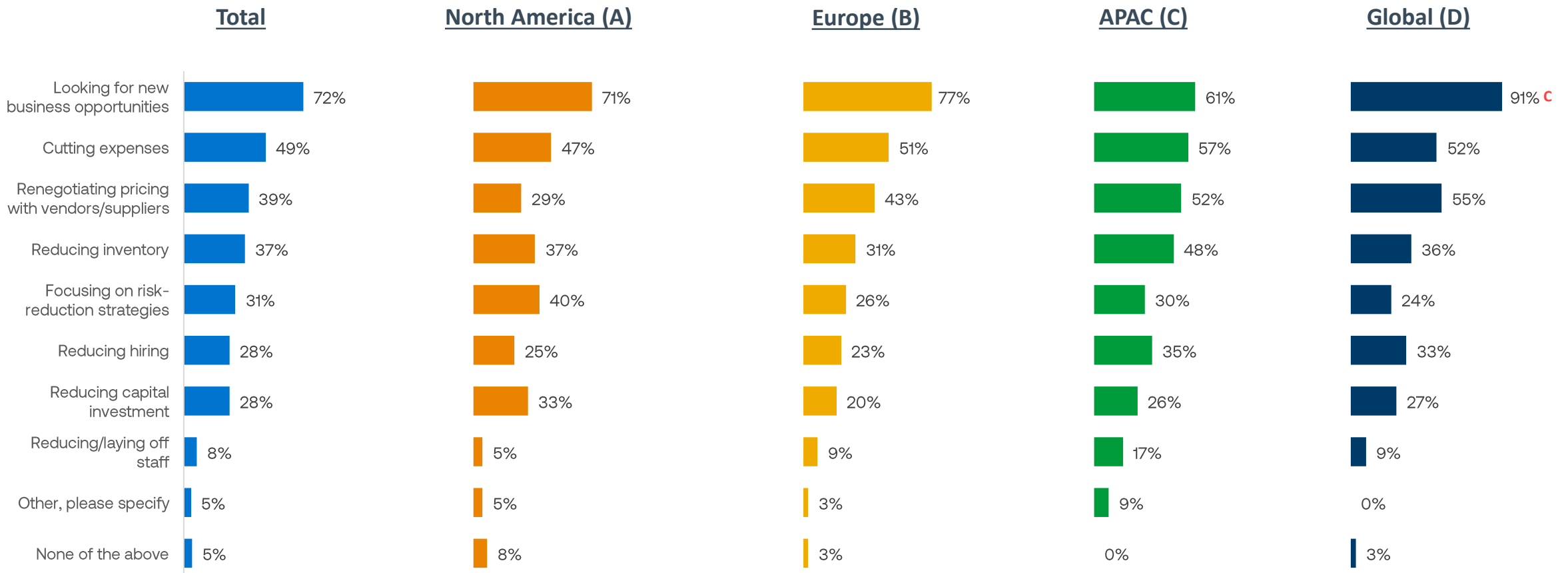
A/B/C/D Statistically significant at 90% confidence interval

In an Effort to Prepare for a Recession, Manufacturers are Looking for New Business Opportunities and Cutting Expenses



Notably, firms operating Globally are more likely to be looking for new business opportunities when compared to their counterparts in APAC.

Actions Being Taken to Prepare for a Recession



A/B/C/D Statistically significant at 90% confidence interval

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	June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022
Material costs	144	144	145	145	143	142	146	145	146	144	142	139	141	139	138
Labor costs	133	136	135	137	138	138	134	138	137	139	138	136	136	139	136
Orders	127	124	123	123	120	124	121	119	118	115	112	109	112	109	107
Backlogs	125	122	124	124	122	119	114	120	119	114	111	107	110	108	105
Shipments^	--	--	--	117	112	115	115	114	114	111	110	112	111	106	109
Capacity utilization	114	115	110	114	111	113	114	110	104	107	110	109	110	107	105
Profit margins	96	91	90	87	82	86	85	89	85	84	86	86	89	87	90
Inventory available to your customers	89	92	87	91	88	109	94	94	91	96	102	106	101	102	105
Ease of recruiting/finding skilled talent	77	80	77	78	80	78	79	81	79	80	85	85	84	84	88
Inventory available to you from your suppliers	73	78	73	77	78	78	83	79	82	86	94	96	99	98	102

Δ+5 points or more vs. previous month

Δ-5 points or more vs. previous month

*Removed January 2022

^Added January 2022

Outlook Diffusion Indices

Month-to-Month Comparisons



	October 2021	November 2021	December 2021	January 2022	February 2022	March 2022	April 2022	May 2022	June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022
Material costs	136	139	138	139	142	139	140	138	140	138	136	131	134	131	131
Labor costs	131	135	133	133	137	136	135	134	135	139	136	134	136	135	133
Orders	126	128	126	125	121	123	121	122	119	120	117	113	108	110	113
Backlogs	112	116	116	120	113	110	109	114	112	103	104	99	100	100	99
Shipments^	--	--	--	120	119	121	117	119	115	120	117	116	114	112	112
Capacity utilization	119	118	116	118	118	116	116	116	112	115	114	117	112	111	111
Profit margins	103	100	96	92	94	97	94	97	90	92	95	93	95	94	98
Inventory available to your customers	100	100	99	97	99	103	101	100	102	105	107	111	114	106	109
Ease of recruiting/finding skilled talent	91	88	86	82	87	86	88	86	90	88	88	92	86	90	93
Inventory available to you from your suppliers	95	92	88	90	93	94	93	92	92	102	104	107	108	110	108

Δ+5 points or more vs. previous month

Δ-5 points or more vs. previous month

*Removed January 2022
^Added January 2022

- > 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 November 10 to December 2, 2022.



Questions? Please contact:

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