



BUILD ELECTRONICS BETTER

The Current Sentiment of the Global Electronics Manufacturing Supply Chain

Monitoring the Pulse of the Global Electronics Industry

May 2023

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Executive Summary



> Global electronics industry sentiment remains positive

- Despite continued economic uncertainty, global electronics industry sentiment remains positive.
- Many companies report they are feeling the economic slowdown and the corresponding uncertainty is causing many of their clients to delay purchase decisions or otherwise hesitate at least in the short-run.
- Electronics manufacturers are reporting cautious optimism, especially for the second half.

> Demand remains positive, for now

- The Backlog Index remained in contraction territory, though just barely, for a second consecutive month.
- The Orders Index slipped to 101. This is still in expansionary territory, but it is the lowest level seen since the start of the survey.

> Cost pressures continue to recede

- The majority of respondents are still reporting that labor costs and material costs are rising, but the number of companies experiencing rising costs continues to decline. Only 49% of companies believe material costs will rise in the coming months, the first time this has fallen below 50%.
- Both the Material Costs Index and the Labor Costs Index are at the lowest levels since the inception of the survey.
- Ease of recruiting skilled workers has also improved to its highest level since the survey began.

Current Conditions for the Electronics Supply Chain

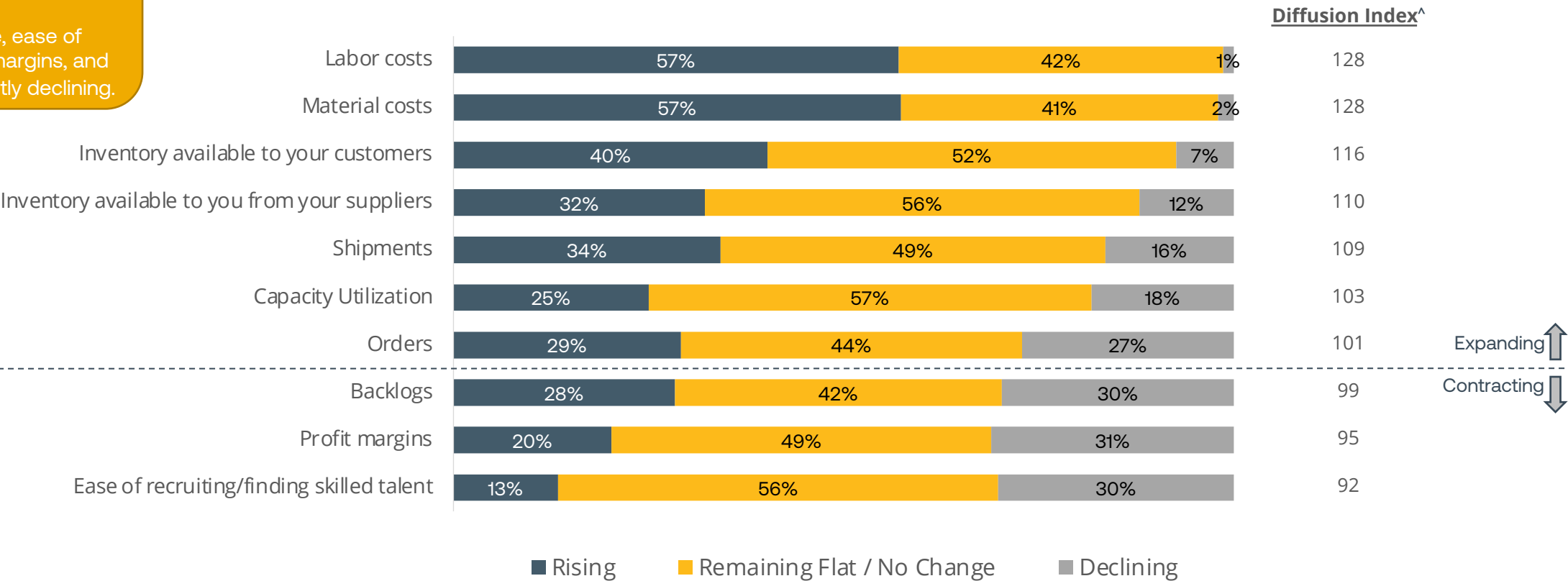


Notably, there are no significant differences in current conditions by region.

Nearly three-fifths of electronics manufacturers are currently experiencing rising labor (57%) and material (57%) costs.

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

Current Direction of Key Business Indicators
-- Total --



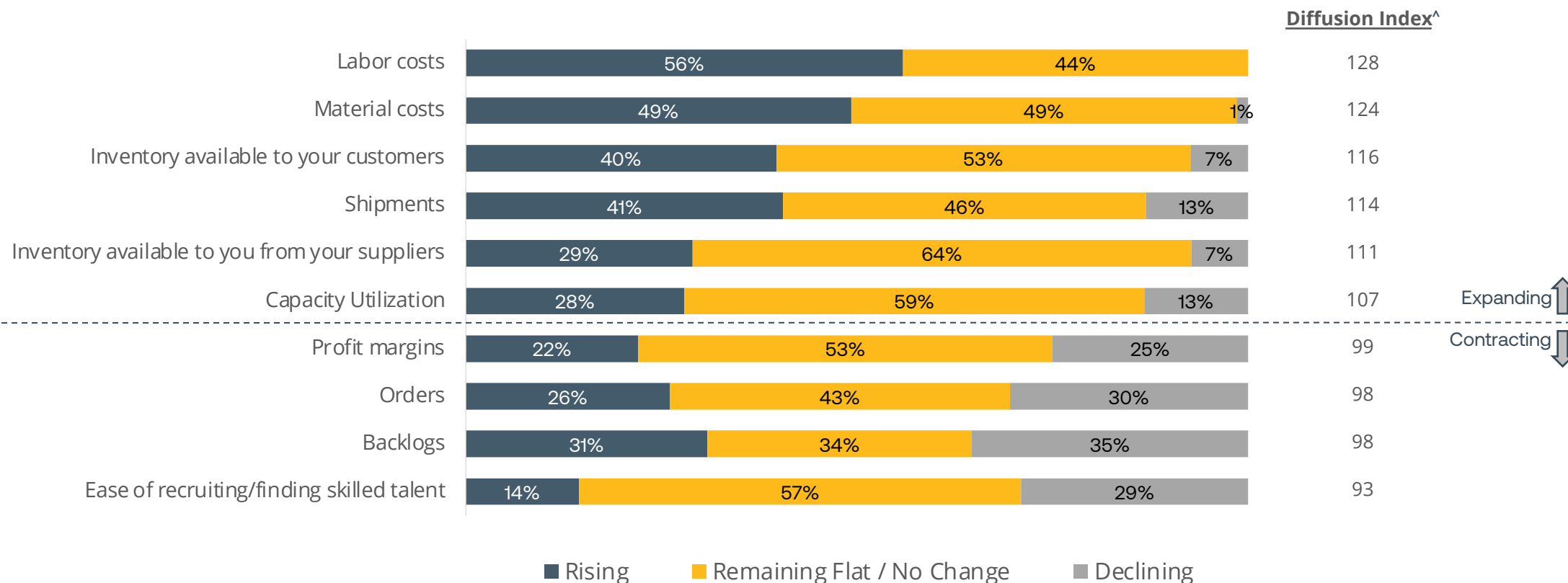
^A diffusion index is a statistical measure used to detect economic turning points.

The View From Companies Primarily Operating in North America



Current Direction of Key Business Indicators

-- Primary Region: North America --

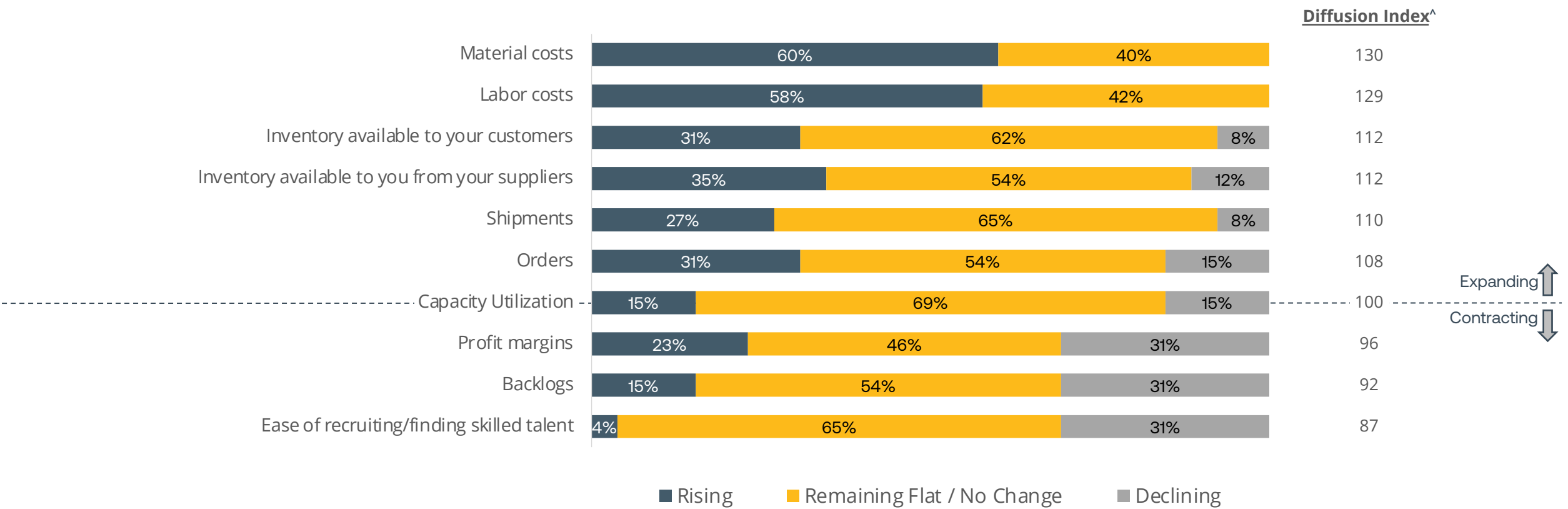


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The View From Companies Primarily Operating in Europe



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



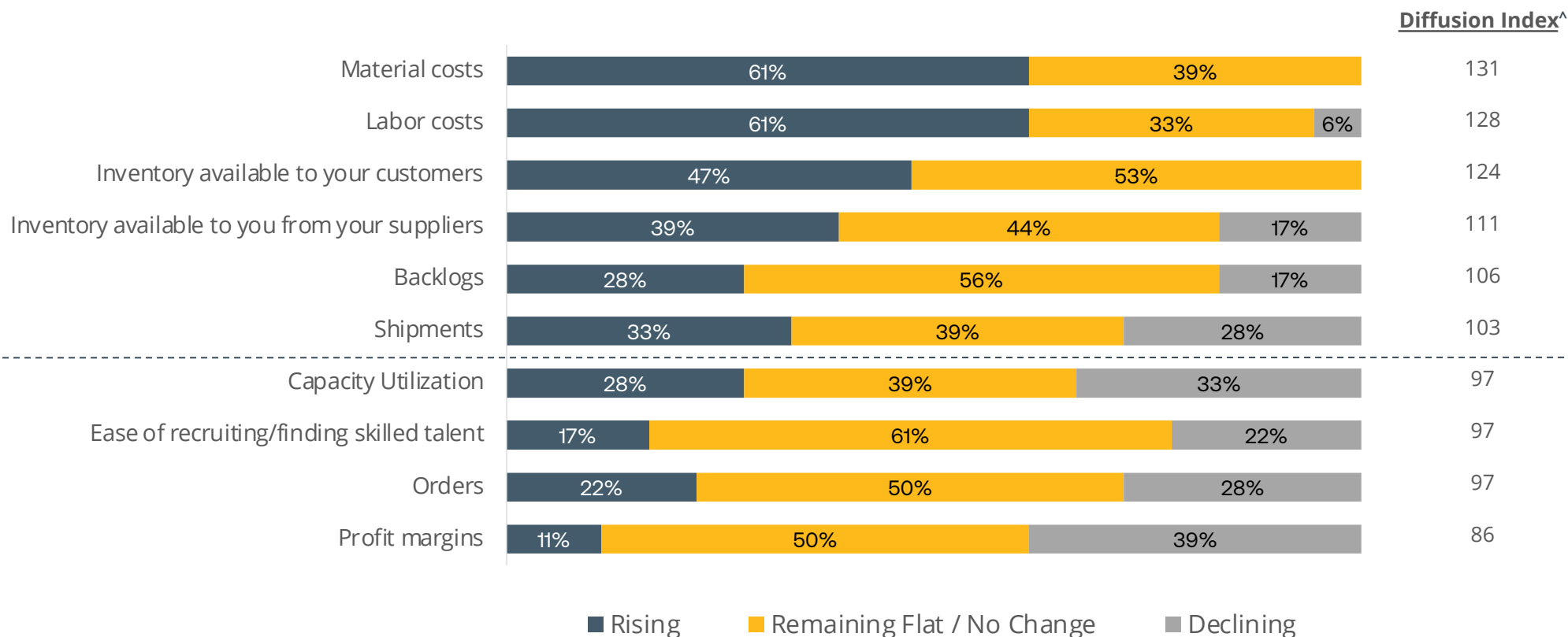
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The View From Companies Primarily Operating in APAC



Current Direction of Key Business Indicators

-- Primary Region: APAC --



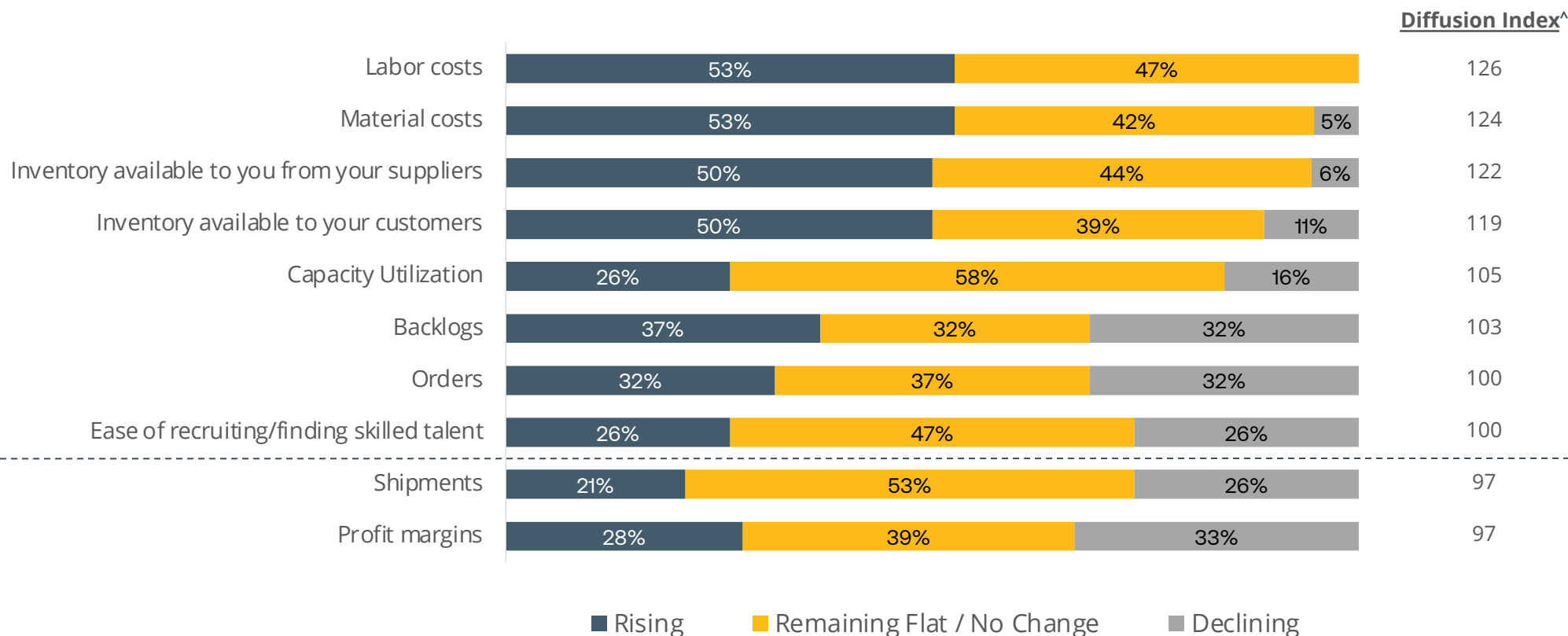
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The View From Companies Primarily Operating Globally



Current Direction of Key Business Indicators

-- Primary Region: Global --



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The Outlook for the Next 6 Months

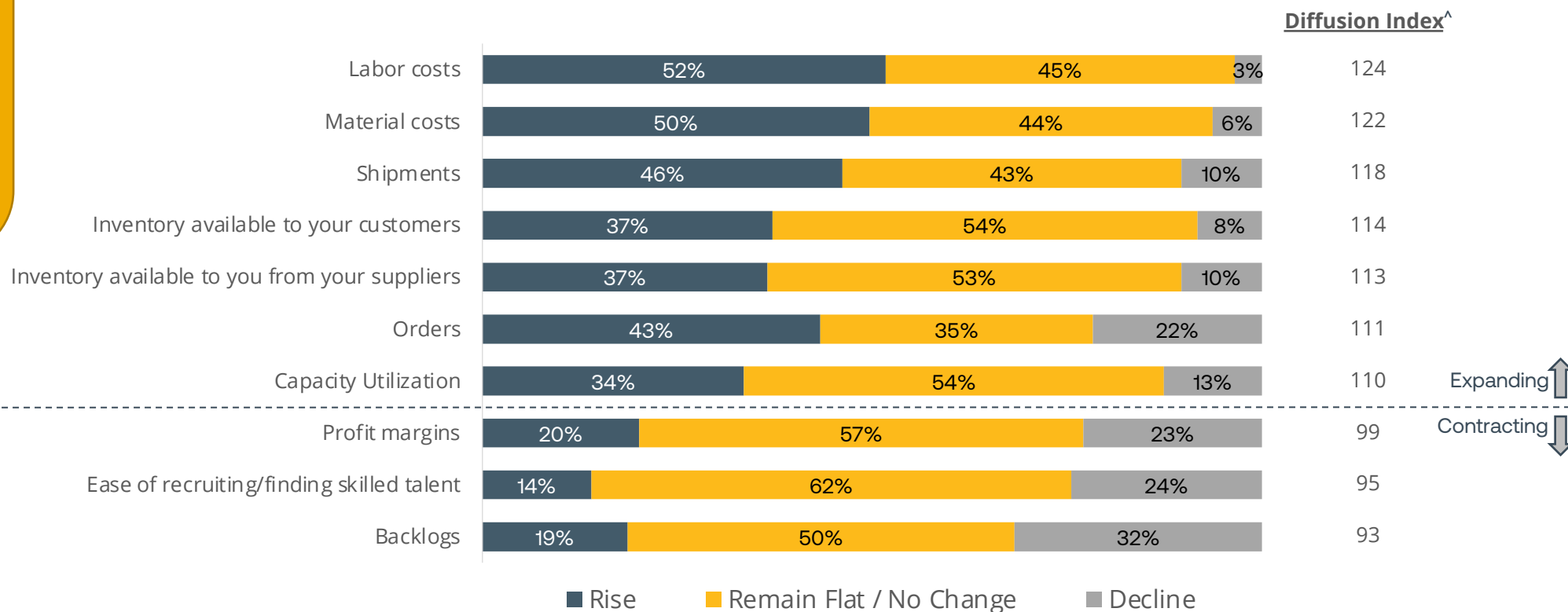


Over the next six months, electronics manufacturers expect to see continued increase in both labor and material costs, although to a somewhat lesser extent vs. current conditions.

Meanwhile, backlogs, ease of recruitment, and profit margins are expected remain challenging.

Anticipated Direction of Key Business Indicators – Next Six Months

-- Total --



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Regional Differences in The Outlook



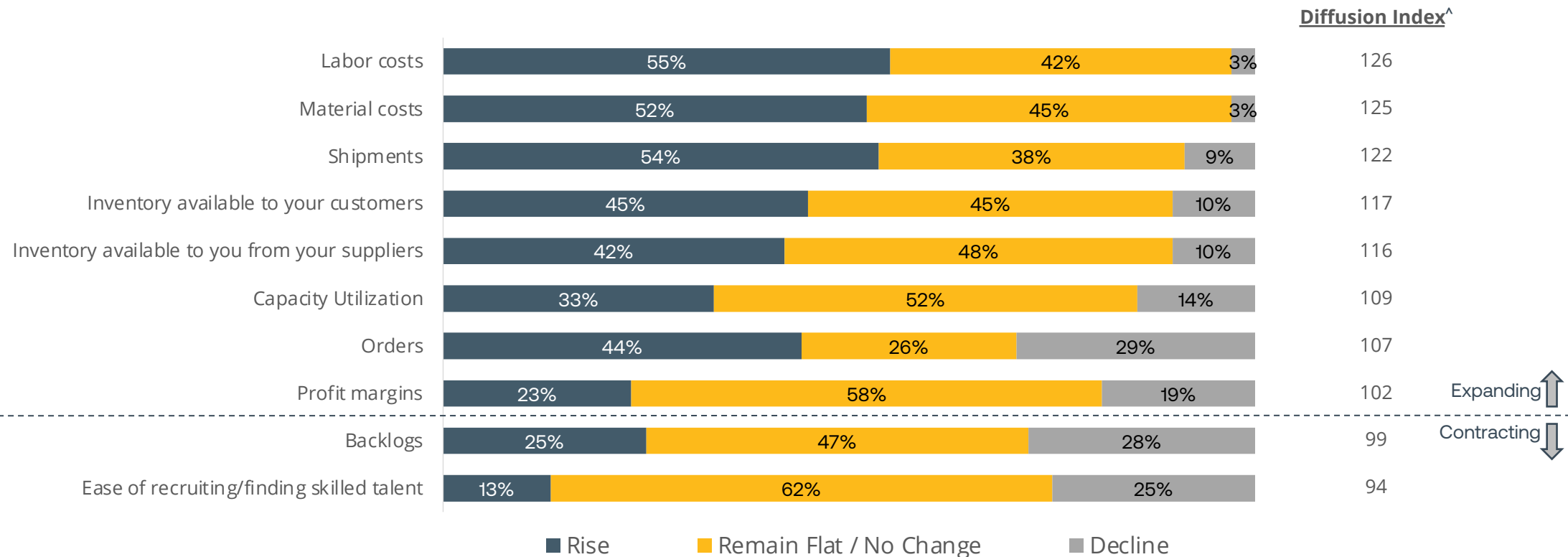
- Orders are expected to decline more so for firms operating in North America vs. those in Europe, who instead are more likely expecting orders to remain stable.
 - Three in ten (29%) North American firms expect orders to decline in the next six months, while only 4% of European manufacturers share in the same outlook.
 - At the same time, two-thirds (65%) of firms in Europe indicate orders are likely to remain steady, whereas a quarter (26%) of North American firms are expecting the same.

The View From Companies Primarily Operating in North America



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: North America --



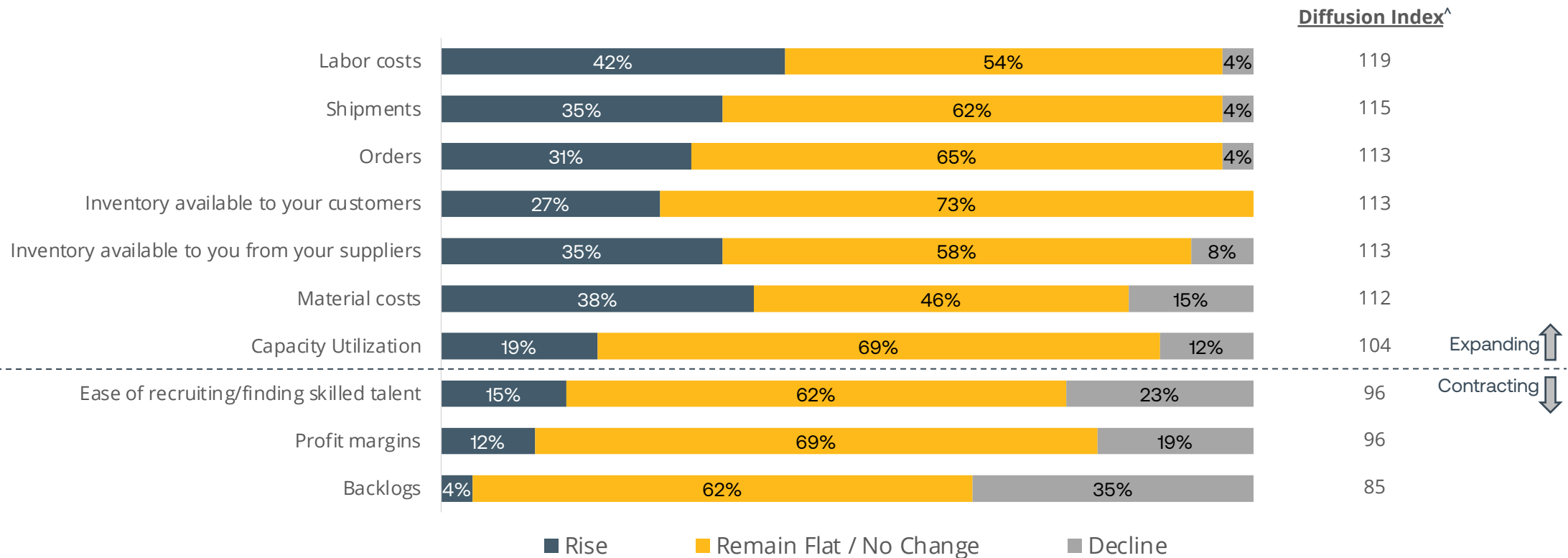
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The View From Companies Primarily Operating in Europe



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: Europe --



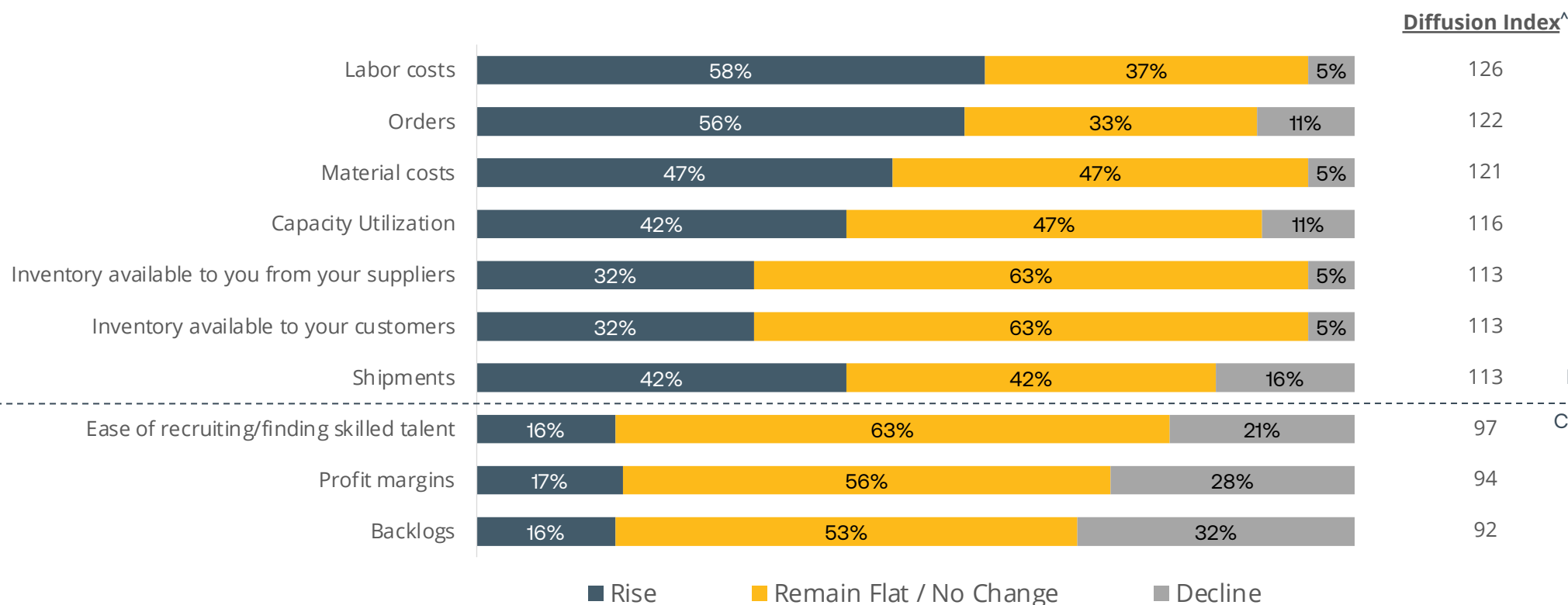
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The View From Companies Primarily Operating in APAC



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: APAC --



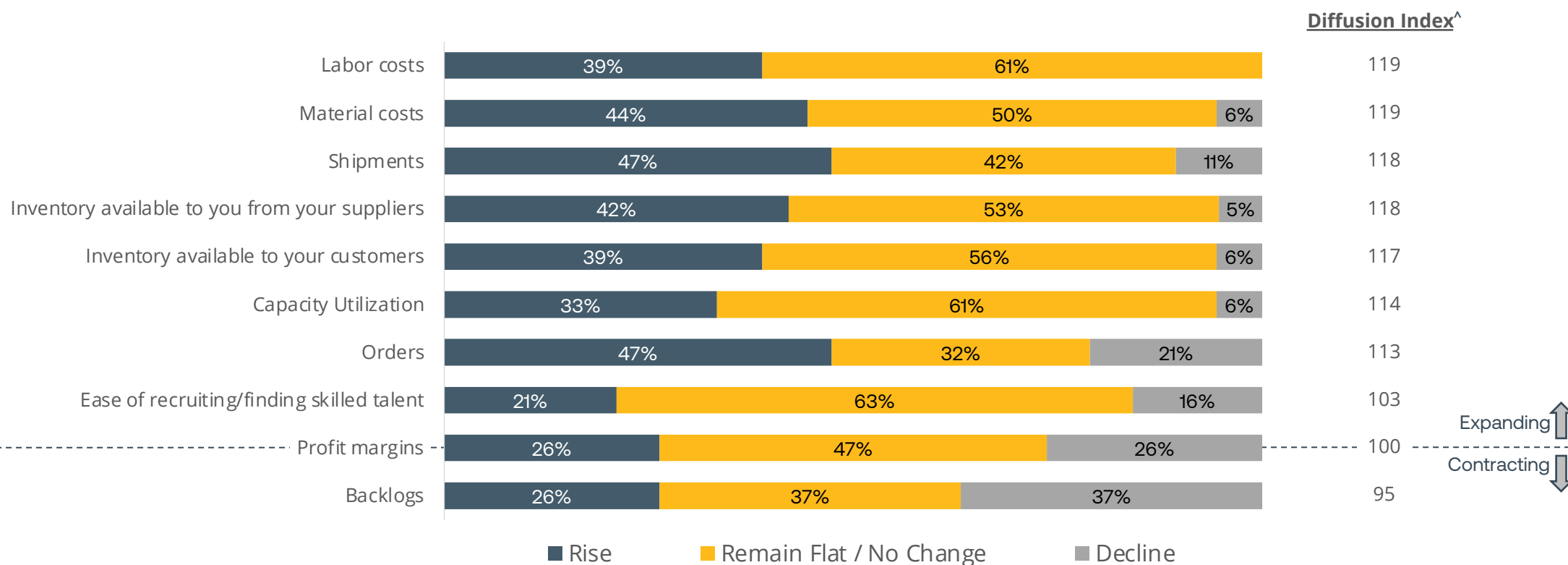
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The View From Companies Primarily Operating Globally



Anticipated Direction of Key Business Indicators – Next Six Months

-- Primary Region: Global --

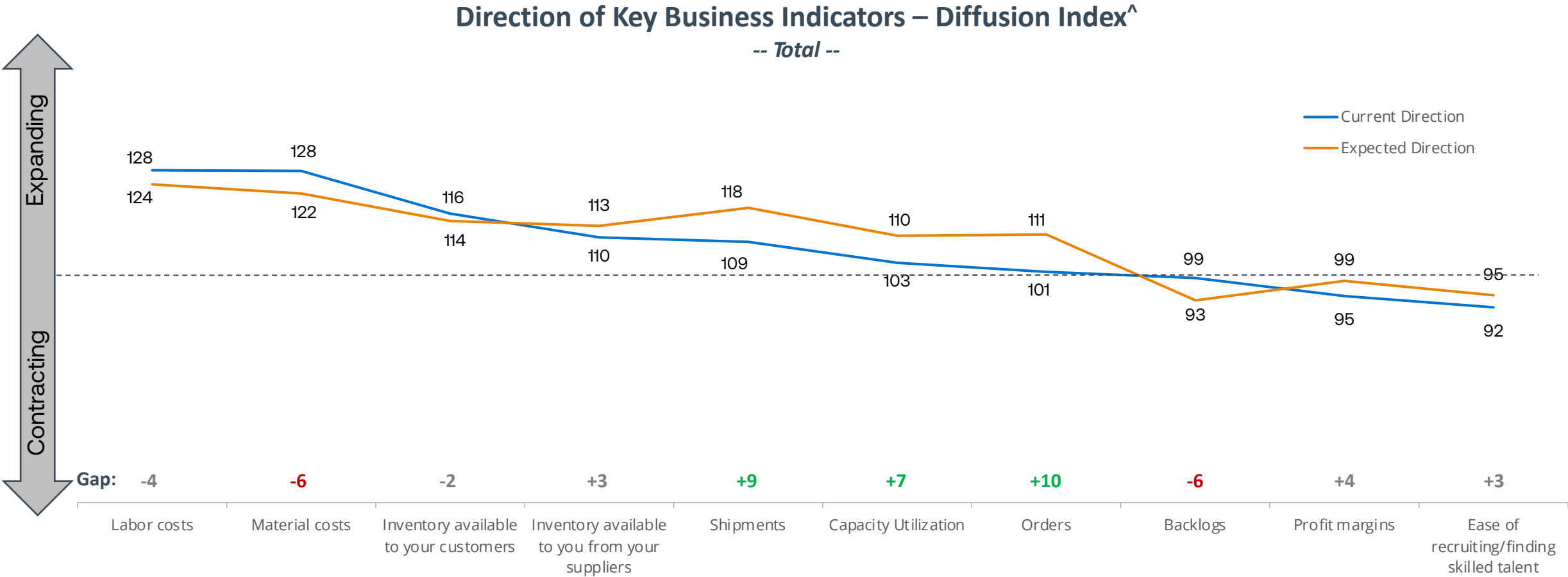


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Orders, Shipments, and Capacity Utilization are Expected to Rise in the Next Six Months

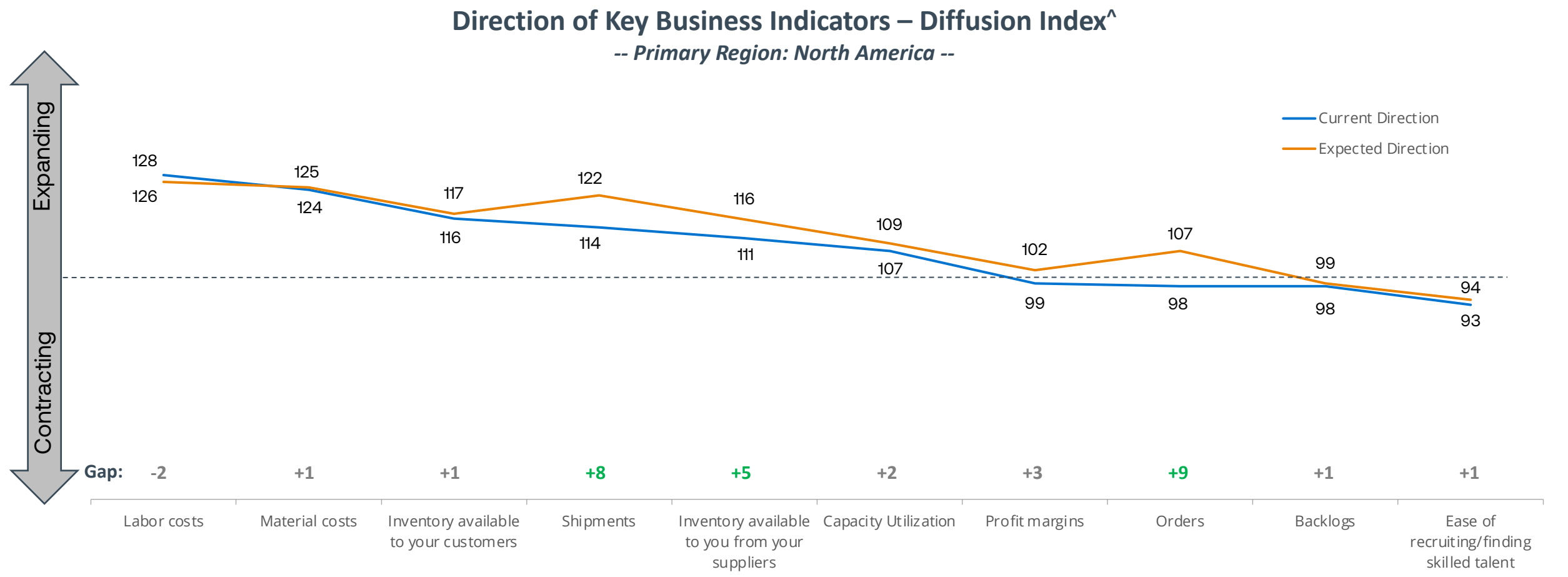


At the same time, material costs and backlogs are expected to decline.



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The View From Companies Primarily Operating in North America

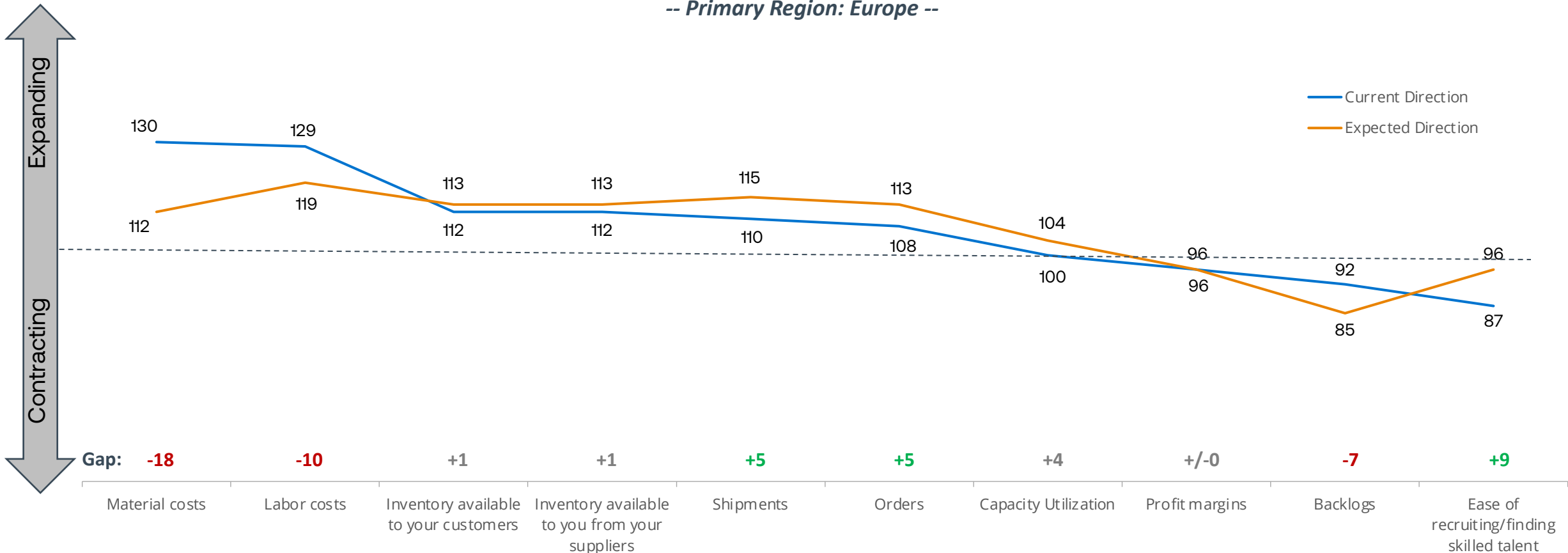


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The View From Companies Primarily Operating in Europe

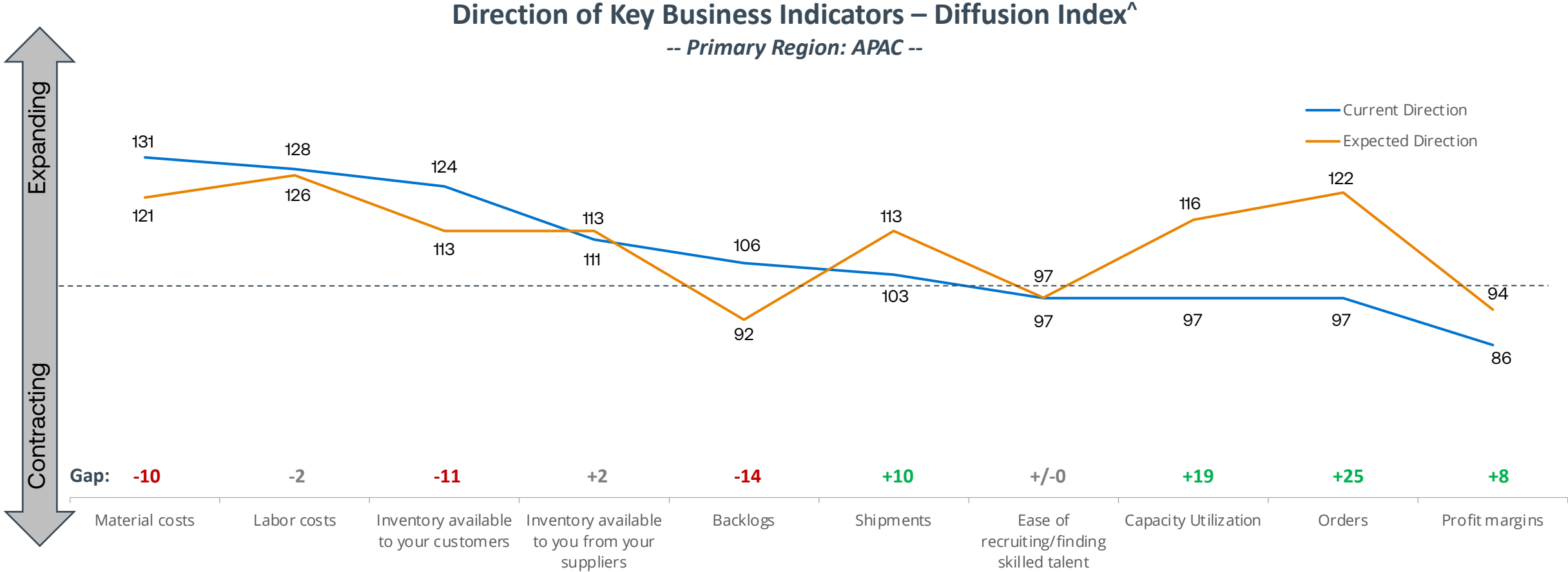


Direction of Key Business Indicators – Diffusion Index^
-- Primary Region: Europe --



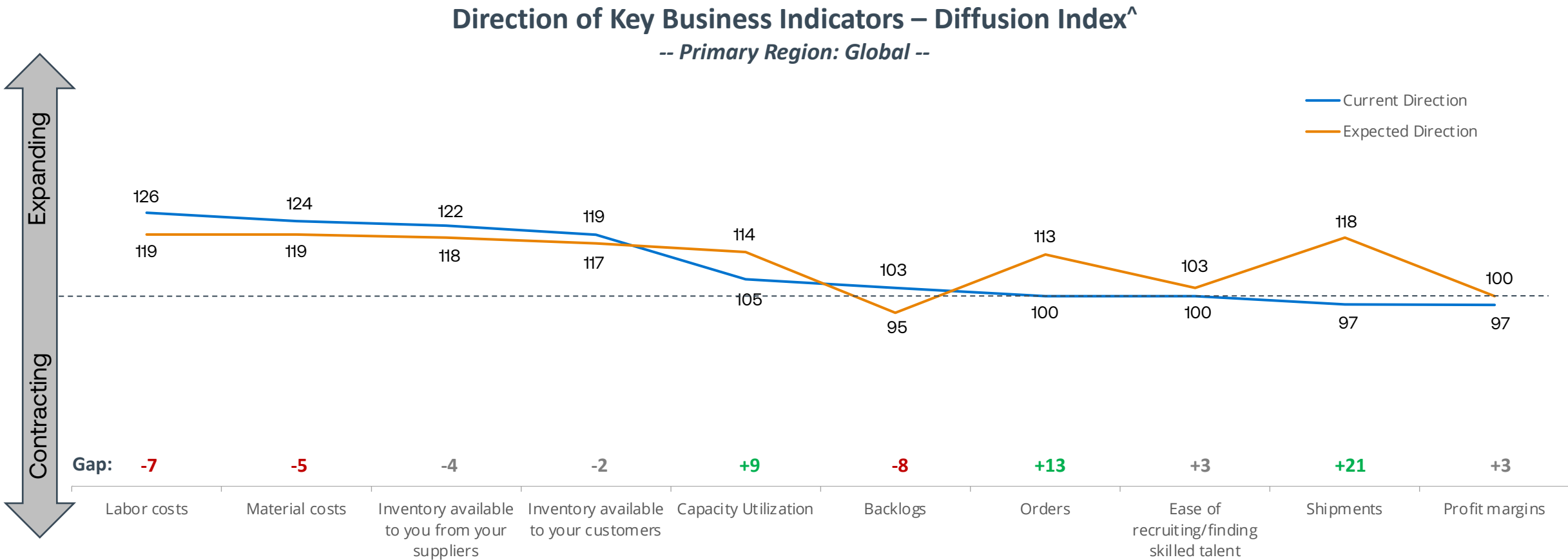
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The View From Companies Primarily Operating in APAC



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The View From Companies Primarily Operating Globally



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May 2023 Special Questions

Geopolitical Factors, Along with the Continued Impacts of Inflation and Rising Interest Rates, Lead Manufacturers to Describe the Current Economy as Slow, Uncertain, Challenging, Difficult, Volatile, and Unpredictable



Describing the Current Economy

-- Verbatim Responses --

"The global economy is affected by geopolitical factors, inflation and rise of interest rates in the US. We are noticing a slow down of some economical regions and some type of products." North America, WHMA

"Volatile and insecure. We are heading into negative territory still some time before the trend in the global economy will reverse." Europe, PCB

"Greatly uncertain of world market situation in political climate change and investment platform movement for capital funding on new projects. Most of the planned projects under development progression are not intended to carrying on. It makes higher pressures on overhead cost payable keeping onwards, ultimately most invested money becomes liability." APAC, Materials Supplier

"Hesitant. There are as many indicators that the economy is trending in a healthy way as there are that we are heading for recession. It would appear that people are having a hard time deciding what is really going on and therefore what to really believe is happening in the short term." North America, Component Supplier

"Hyperinflation affects daily life and business in all segments. Costs are rising day by day." Europe, OEM

"Bifurcated. Some lines are going gangbusters, and others are silent." North America, WHMA

"Mixed. Some indicators suggest a more significant recession is looming. Others indicate potential slow economic growth." North America, Materials Supplier

"Extremely unstable. Expecting further market volatility, tightening component availability. Prices rising." North America, EMS

"Uncertain. Everybody seems to be in a holding pattern." North America, EMS

"Current economy is slowing down. Orders for products could be better." North America, Equipment Supplier

"Flat, sluggish and at risk of declining. Customers are weary to spend money on new development due to risk." North America, Other

"Cautious. Angst over the direction of interest rates, government policy, taxes, but demand conditions are generally good and seem resilient." North America, EMS

"The macroeconomic environment is slowing in many sectors, but fortunately for our company the verticals we are supporting are continuing to stay strong and are continuing to grow. We are continuing to find material supply "challenging" which is keeping our inventory levels higher than we would traditional like to have them, and in turn is eroding our margins due to the higher cost of money." North America, WHMA

"Volatile and unpredictable. Different activity in different sectors. Quiet in some markets, busy in others, unpredictable in all." Europe, PCB

"Difficult due to global situation and uncertain future." Europe, OEM

"In turmoil, lead by Russia-Ukraine war, poor US Leadership, China aggression and Middle East oil manipulation." Global, PCB

**Insufficient base size

However, Despite Current Challenging Conditions, the Outlook for 2023 is Relatively Positive, with Manufacturers Expressing Optimism and Expecting Growth, Especially in the Latter Half of the Year



Outlook for 2023

-- Verbatim Responses --

"Challenging, but opportunities exist."
Europe, PCB

"Gradual pick up in second half of 2023."
North America, PCB

"We are bullish on our 2023 and are forecasting growth, but not as high as we experienced in 2022." North America, WHMA

"Overall outlook is very positive revenue and profit growth on the rise. Have added numerous automated processes to combat labor challenge." North America, EMS

"Very good. All indicators are up or are consistent with 2022." North America, OEM

"Very positive. Revenue and margins are up, prices are stabilizing, demand is persistent, and we are busy." North America, EMS

"Good. Aerospace and Medical both have strong demand." North America, WHMA

"Challenging, but promising." North America, OEM

"Despite of the government and the political scenario, the company will have a good performance." South & Central America, EMS

"Promising, there is a lot of activity within our existing customer base which must bring opportunities. We anticipate growth of 8% this year, partly funded by product price increases levied from the start of 2023. Energy costs make up 15% of our turn-over, this situation is really impacting upon our company's profitability." Europe, PCB

"Optimistic, we have seen a decline in the Semi industry and the Defense industry, while we have seen gains in the Medical Device and EV markets, one is helping to offset the other." North America, WHMA

"Profit and revenue-wise we expect much better results this year compared to 2022." North America, EMS

"Expecting further sales growth." North America, OEM

"Our expectations are high for the second half of the year." Europe, Other

"Expect first 3 quarters to be slow." North America, OEM

"Growth will be lower than in 2022, but we still see a positive outlook." Europe, EMS

"Expecting for a higher profitability. High work loads expected." APAC, Other

**Insufficient base size

Appendix

Current Conditions Diffusion Indices

Past 12 Month Comparisons (TOTAL)



	May 2022	June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	April 2023	May 2023
Shipments	114	114	111	110	112	111	106	109	112	110	111	110	109
Orders	119	118	115	112	109	112	109	107	112	111	112	105	101
Profit margins	89	85	84	86	86	89	87	90	89	86	90	93	95
Backlogs	120	119	114	111	107	110	108	105	99	101	104	97	99
Ease of recruiting/finding skilled talent	81	79	80	85	85	84	84	88	87	84	91	89	92
Material costs	145	146	144	142	139	141	139	138	136	135	133	130	128
Labor costs	138	137	139	138	136	136	139	136	136	137	136	131	128
Capacity utilization	110	104	107	110	109	110	107	105	111	108	110	105	103
Inventory available to you from your suppliers	79	82	86	94	96	99	98	102	104	102	106	108	110
Inventory available to your customers	94	91	96	102	106	101	102	105	111	106	108	111	116

Δ+5 points or more vs. previous month

Δ-5 points or more vs. previous month

Outlook Diffusion Indices

Past 12 Month Comparisons (TOTAL)



	May 2022	June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	April 2023	May 2023
Shipments	119	115	120	117	116	114	112	112	120	119	116	118	118
Orders	122	119	120	117	113	108	110	113	116	116	114	118	111
Profit margins	97	90	92	95	93	95	94	98	97	100	98	98	99
Backlogs	114	112	103	104	99	100	100	99	100	97	100	95	93
Ease of recruiting/finding skilled talent	86	90	88	88	92	86	90	93	95	95	93	95	95
Material costs	138	140	138	136	131	134	131	131	130	127	128	126	122
Labor costs	134	135	139	136	134	136	135	133	135	133	134	132	124
Capacity utilization	116	112	115	114	117	112	111	111	118	115	115	112	110
Inventory available to you from your suppliers	92	92	102	104	107	108	110	108	113	113	112	113	113
Inventory available to your customers	100	102	105	107	111	114	106	109	117	114	111	110	114

Δ+5 points or more vs. previous month

Δ-5 points or more vs. previous month

- > 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 13 and April 30, 2023.



Questions? Please contact:

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