

EU Industry Survey Topline Report

July 18, 2023

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Methodology



- > This report, designed and formulated by IPC, represents the findings from an online quantitative survey fielded between the dates of July 7 and July 14, 2023.
- > A total of n=122 European PCB (printed circuit board) fabricators, OEM (original equipment manufacturers / electronic end-products manufacturers), and EMS (electronics manufacturing services) / contract electronics manufacturers completed the survey.
- > Please note: Totals may not sum to 100% due to rounding.

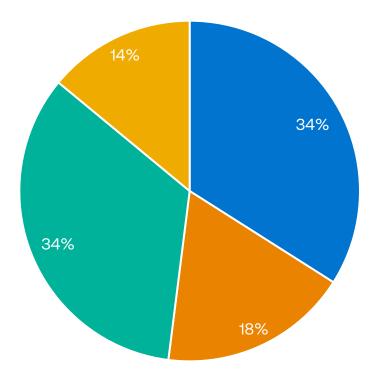


Main Findings

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Primary Industry Segment

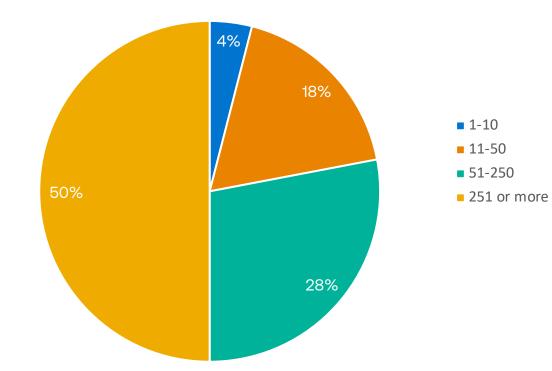


- PCB (printed circuit board) fabricator
- OEM (original equipment manufacturer / electronic end-product manufacturer)
- EMS (electronics manufacturing services) / contract electronics manufacturer
- Other (please specify)

Q1. What is your company's primary industry segment? Base: All respondents (n=122)



Number of Employees



Q3. What is your company's headcount? Base: All respondents (n=120)

Subgroup Analysis by Industry Segment



Number of Employees by Industry Segment

	Total	РСВ (А)	ОЕМ (В)	EMS (C)
1-10	4%	0%	5%	2%
11-50	18%	26%	23%	15%
51-250	28%	52%	5%	17%
251 or more	50%	21%	68%	66%
Don't know	0%	0%	0%	0%

Q3. What is your company's headcount? Base: All respondents (n=120); PCB (n=42); OEM (n=22); EMS (n=41)



,1% 16% 18% 5% 24% 19% 18%

Annual Global Revenue

■ <€5mm ■ €5mm - €25mm

- €25mm €100mm
- ∎ €100mm €500mm
- ∎ €500mm €1b
- >€1b
- Don't know

Q4. What is your company's total global annual revenue? Base: All respondents (n=120)

Subgroup Analysis by Industry Segment



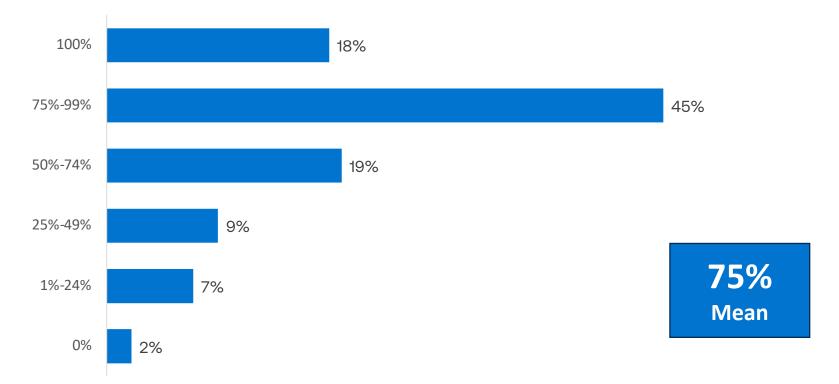
Annual Global Revenue by Industry Segment

	Total	РСВ (А)	ОЕМ (В)	EMS (C)
<€5mm	16%	19%	18%	10%
€5mm - €25mm	24%	40%	14%	17%
€25mm - €100mm	18%	26%	9%	10%
€100mm - €500mm	19%	12%	23%	24%
€500mm - €1b	5%	0%	0%	15%
>€1b	18%	2%	36%	24%
Don't know	1%	0%	0%	0%

Q4. What is your company's total global annual revenue? Base: All respondents (n=120); PCB (n=42); OEM (n=22); EMS (n=41)



Percentage of Total Annual Revenue Related to EU Market



Q5. What percentage of your total annual revenue is related to the EU market? Base: All respondents (n=116)

Subgroup Analysis by Industry Segment



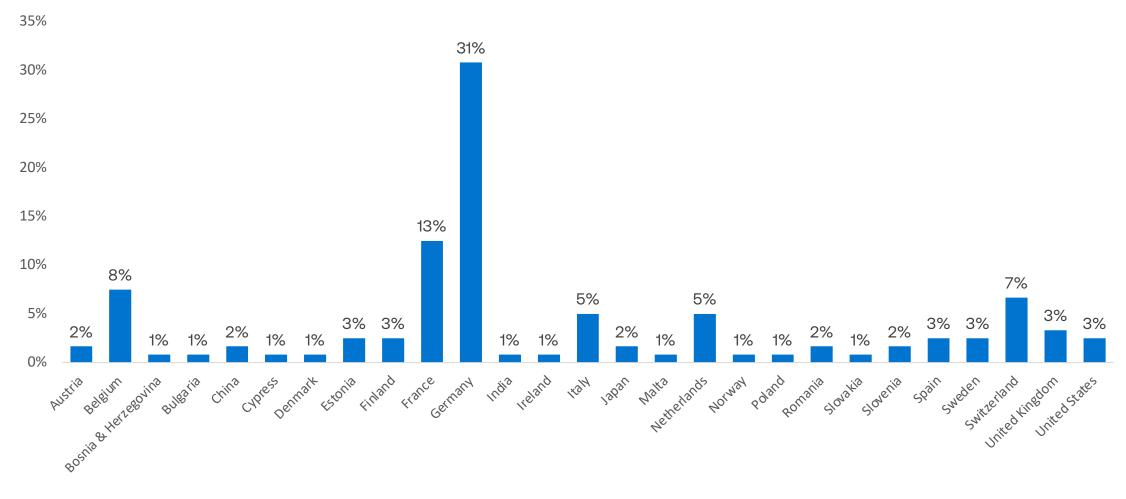
Percentage of Total Annual Revenue Related to EU Market by Industry Segment

	Total	РСВ (А)	ОЕМ (B)	EMS (C)
100%	18%	17%	25%	23%
75%-99%	45%	57%	20%	46%
50%-74%	19%	14%	20%	21%
25%-49%	9%	5%	25%	5%
1%-24%	7%	5%	10%	5%
0%	2%	2%	0%	0%
Mean	75%	79%	66%	79%

Q5. What percentage of your total annual revenue is related to the EU market? Base: All respondents (n=116); PCB (n=42); OEM (n=20); EMS (n=39)



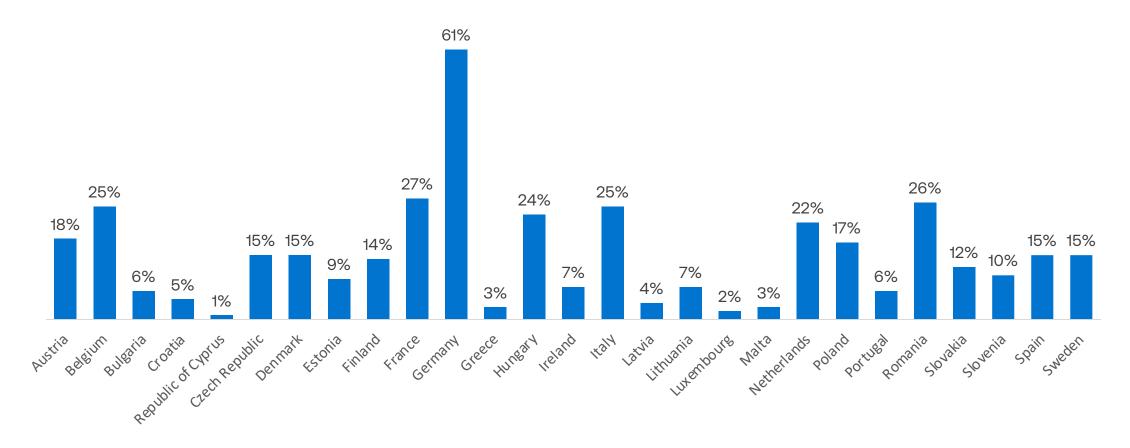
Location of Company Headquarters



Q6. In which country is your company headquartered? Base: All respondents (n=120)



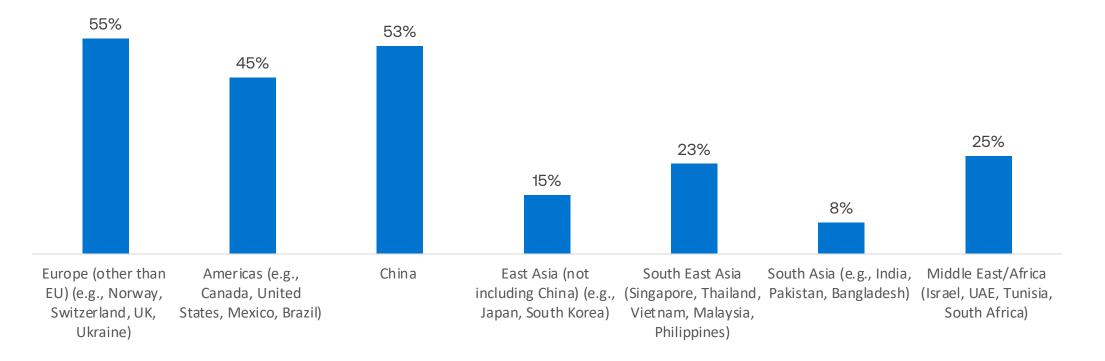
Countries Engaged in PCB Fabrication or Electronics Assembly



Q7. In which EU countries does your company engage in PCB fabrication or electronics assembly? Please select all that apply. Base: All respondents (n=110)



Regions Outside of EU Engaged in PCB Fabrication or Electronics Assembly

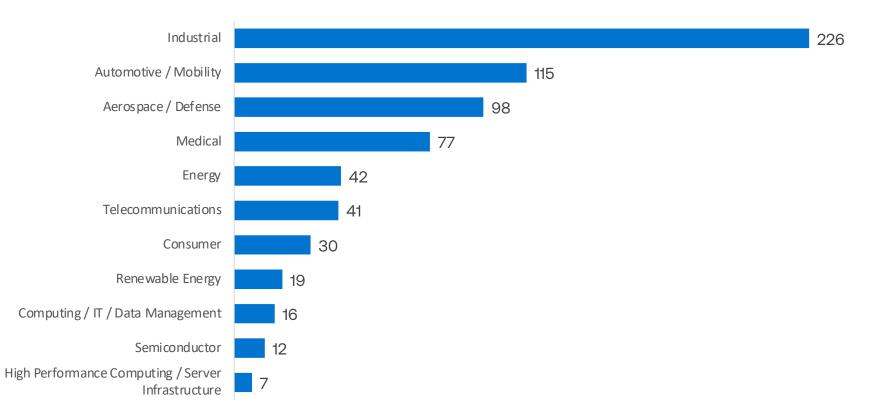


Q8. In which regions outside of the EU does your company engage in PCB fabrication or electronics assembly? Please select all that apply. Base: All respondents (n=87)



Largest Revenue Market Sectors Served

(ranked order based on overall score*)

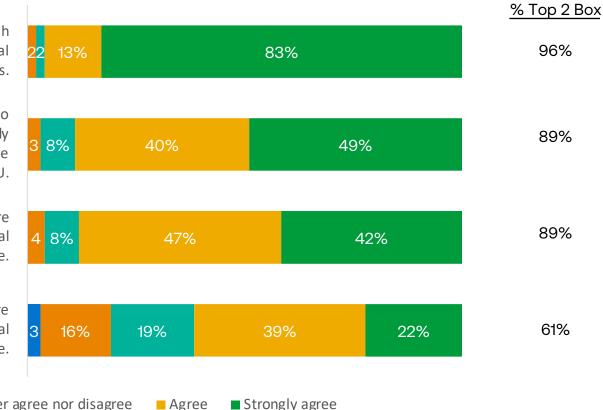


Q9. Please rank in order the three largest revenue market sectors your business serves. Base: All respondents (n=112)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top three).



Agreement With Statements



A robust European electronics manufacturing ecosystem, which includes the PCB industry and EMS industries, is critical to regional security, industrial resiliency, and economic competitiveness.

EU should work more closely with international partners to establish standards, incentives, and support for trusted supply chains for electronics that are sensitive and mission critical for the EU.

The European PCB industry today lacks capabilities that are important to an innovative, secure, and resilient European industrial base.

The European EMS industry today lacks capabilities that are important to an innovative, secure, and resilient European industrial base.

Strongly disagree Dis

Disagree Neither agree nor disagree

Q10. To what degree do you agree with each of the following? Base: All respondents (n=118-120)

Subgroup Analysis: PCB Industry Segment

Agreement With Statements by Industry Segment: PCB

% Top 2 Box A robust European electronics manufacturing ecosystem, which includes the PCB industry and EMS industries, is critical to regional 100% 95% security, industrial resiliency, and economic competitiveness. The European PCB industry today lacks capabilities that are 90% important to an innovative, secure, and resilient European industrial 10% 36% 55% base. EU should work more closely with international partners to establish standards, incentives, and support for trusted supply 86% 21% 64% 7% 7% chains for electronics that are sensitive and mission critical for the EU. The European EMS industry today lacks capabilities that are important to an innovative, secure, and resilient European industrial 61% 24% 15% 32% 29% base. ■ Neither agree nor disagree Agree Strongly agree

Q10. To what degree do you agree with each of the following? Base: PCB respondents (n=41-42)

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Disagree

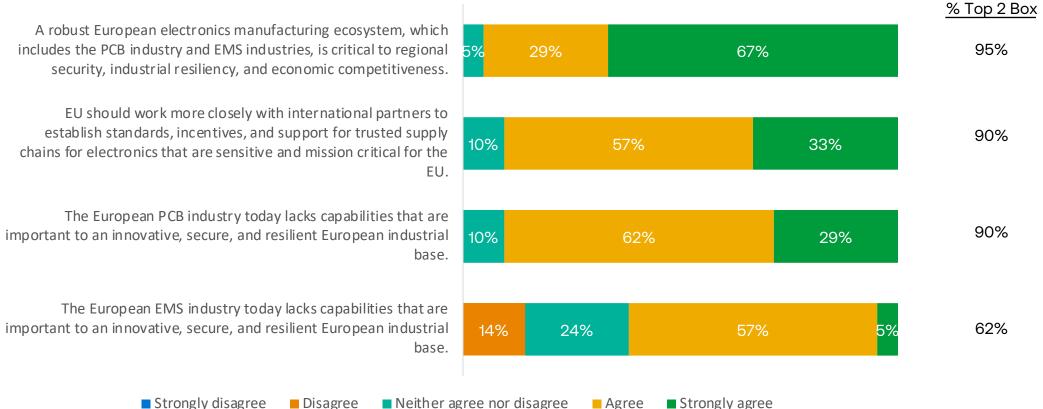
Strongly disagree

Base: OEM respondents (n=21)

Q10. To what degree do you agree with each of the following?

Subgroup Analysis: OEM Industry Segment

Agreement With Statements by Industry Segment: OEM



IPC

Strongly disagree

Disagree

Base: EMS respondents (n=40-41)

Q10. To what degree do you agree with each of the following?

Subgroup Analysis: EMS Industry Segment

Agreement With Statements by Industry Segment: EMS

% Top 2 Box 98% 12% 85% 93% 8% 50% 43% EU. 83% 15% 51% 32% base. 61% 7% 15% 17% 32% 29% base.

A robust European electronics manufacturing ecosystem, which includes the PCB industry and EMS industries, is critical to regional security, industrial resiliency, and economic competitiveness.

EU should work more closely with international partners to establish standards, incentives, and support for trusted supply chains for electronics that are sensitive and mission critical for the

The European PCB industry today lacks capabilities that are important to an innovative, secure, and resilient European industrial

The European EMS industry today lacks capabilities that are important to an innovative, secure, and resilient European industrial

> Strongly disagree Disagree

■ Neither agree nor disagree

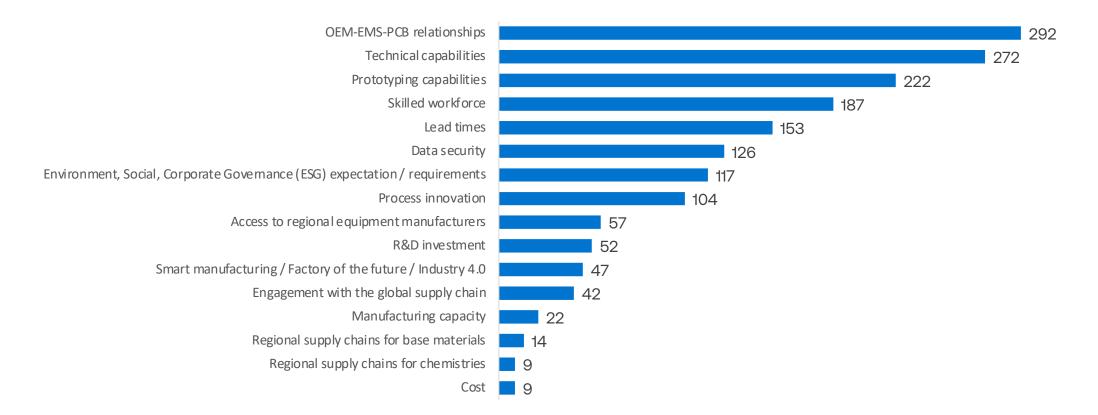
Agree Strongly agree





Top Strengths of the European PCB Industry

(ranked order based on overall score*)



Q11. Please rank in order the top five strengths of the European PCB industry.

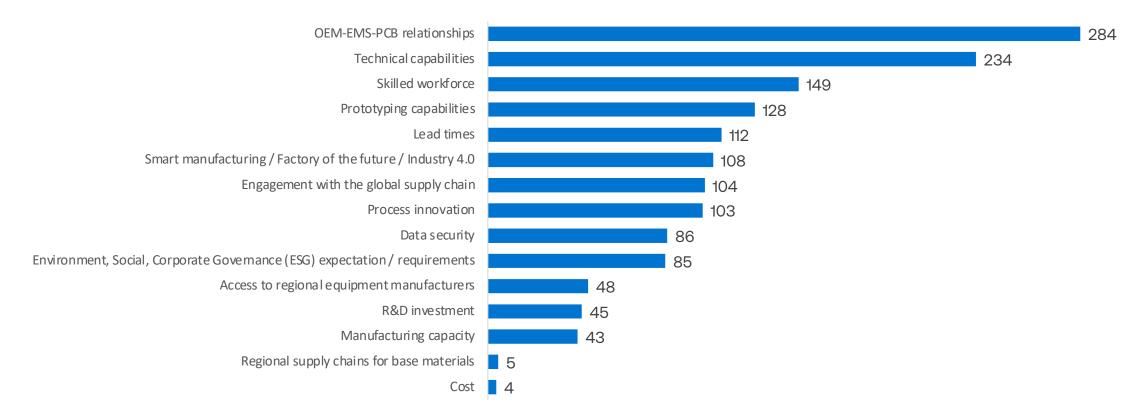
Base: All respondents (n=119)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Strengths of the European EMS Industry

(ranked order based on overall score*)



Q12. Please rank in order the top five strengths of the European EMS industry.

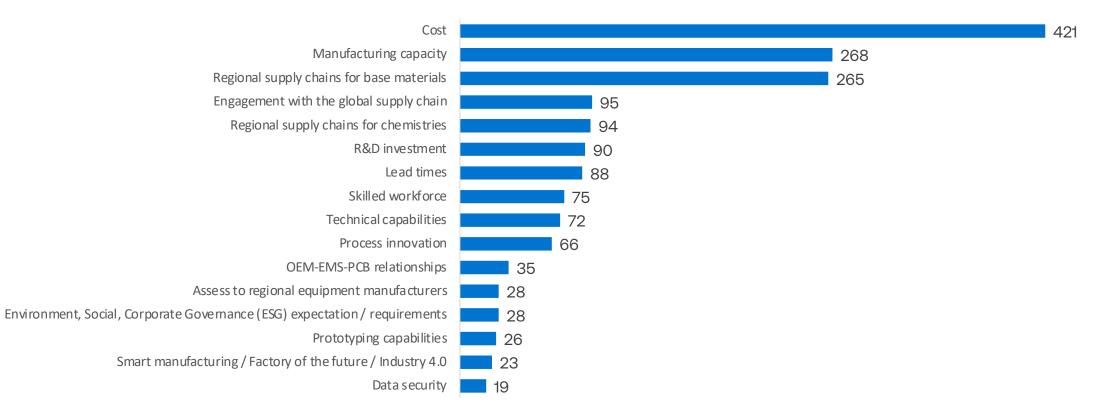
Base: All respondents (n=103)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Weaknesses of the European PCB Industry

(ranked order based on overall score*)



Q13. Please rank in order the top five weaknesses of the European PCB industry.

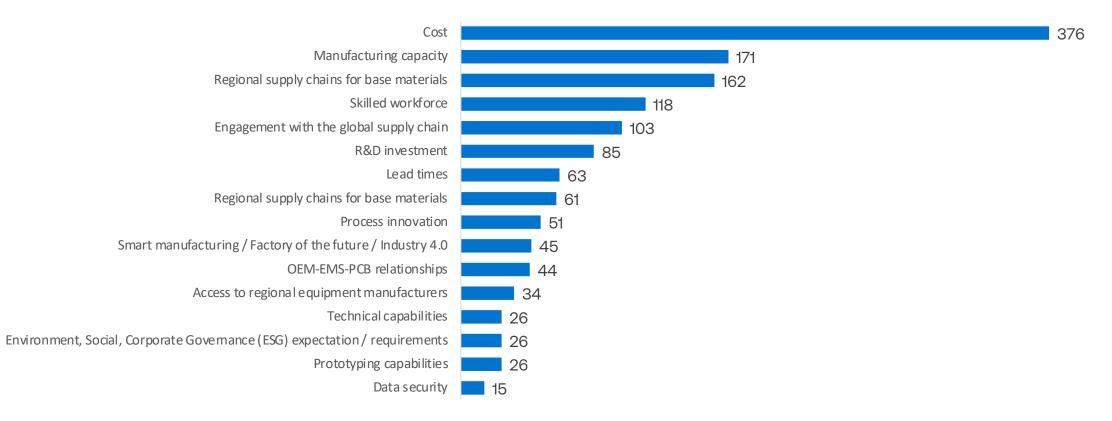
Base: All respondents (n=117)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Weaknesses of the European EMS Industry

(ranked order based on overall score*)



Q14. Please rank in order the top five weaknesses of the European EMS industry.

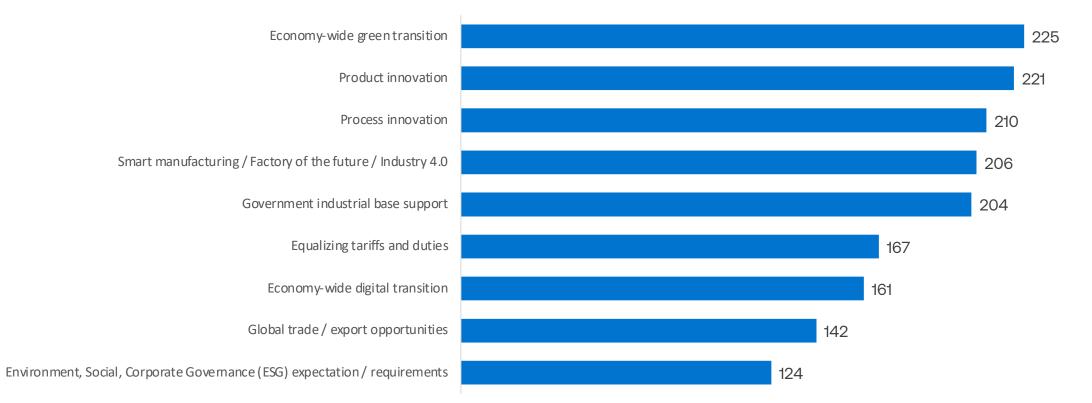
Base: All respondents (n=99)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Opportunities for the European PCB Industry

(ranked order based on overall score*)



Q15. Please rank in order the top five opportunities for the European PCB industry over the next five years.

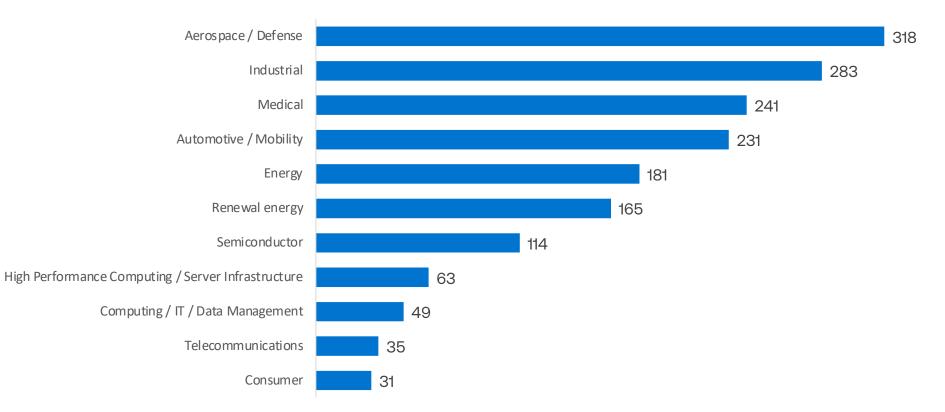
Base: All respondents (n=116)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top End Markets for the European PCB Industry

(ranked order based on overall score*)



Q16. Please rank in order the top five end-markets in terms of priority for the European PCB industry 10 years from now.

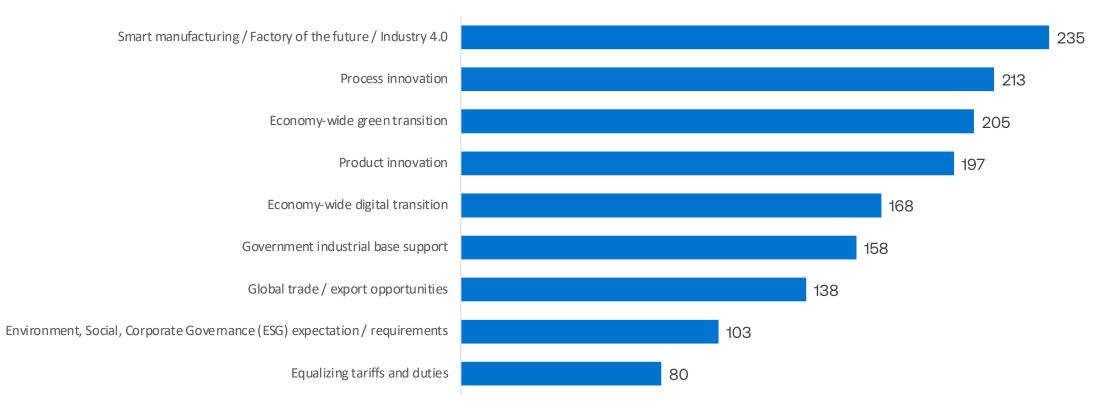
Base: All respondents (n=116)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Opportunities for the European EMS Industry

(ranked order based on overall score*)



Q17. Please rank in order the top five opportunities for the European EMS industry over the next five years.

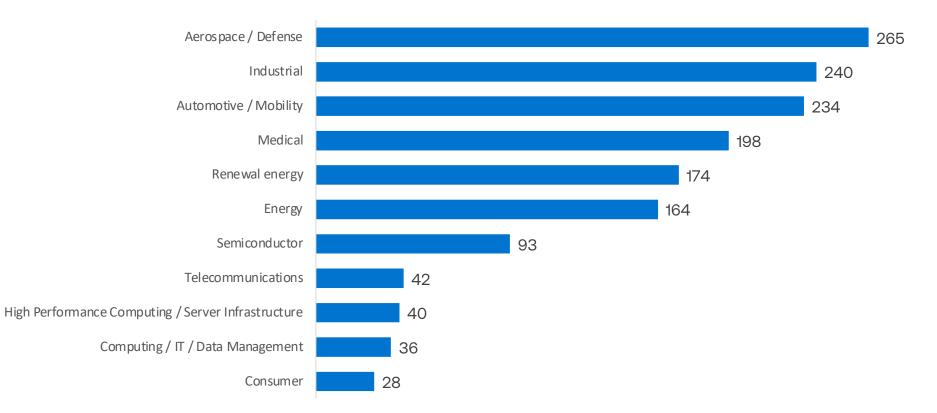
Base: All respondents (n=103)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top End Markets for the European EMS Industry

(ranked order based on overall score*)



Q18. Please rank in order the top five end-markets in terms of priority for the European EMS industry 10 years from now.

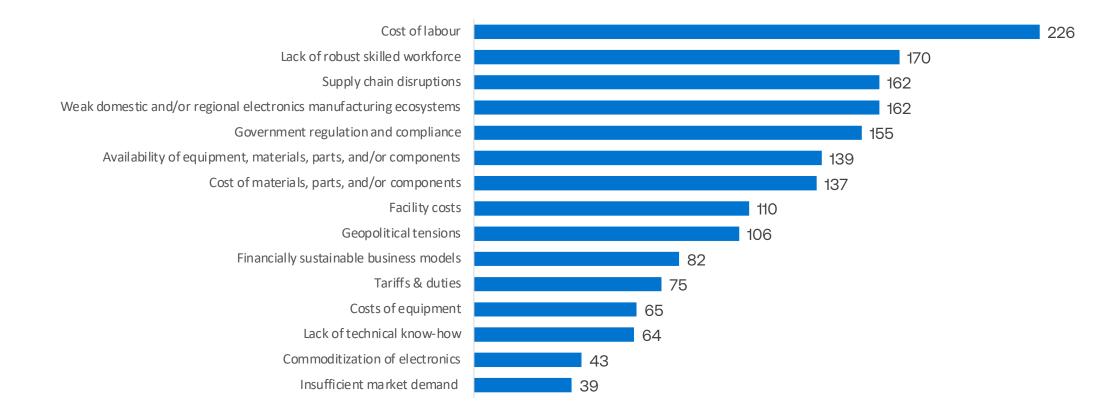
Base: All respondents (n=101)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Threats to the European PCB Industry

(ranked order based on overall score*)



Q19. Please rank in order the top five threats to the European PCB industry.

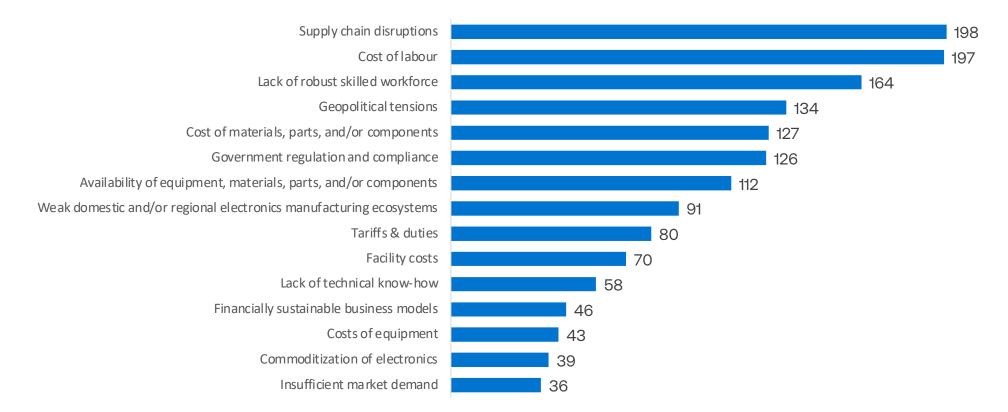
Base: All respondents (n=117)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Threats to the European EMS Industry

(ranked order based on overall score*)



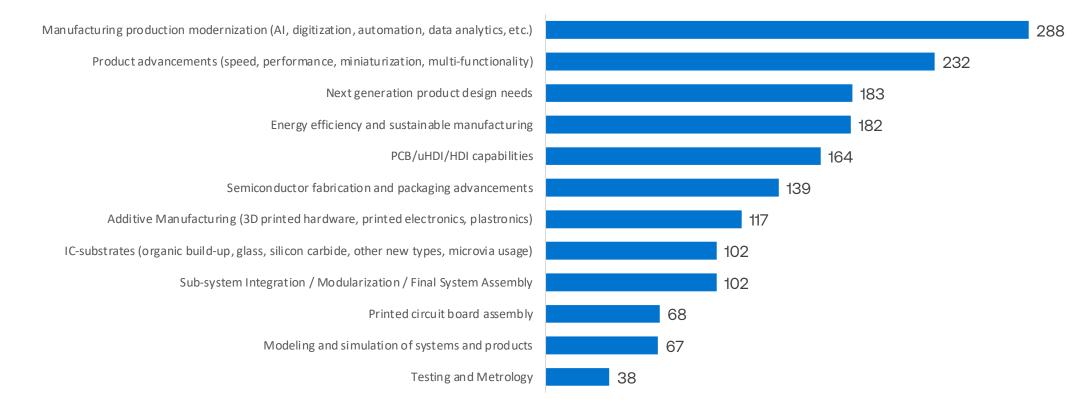
Q20. Please rank in order the top five threats to the European EMS industry.

Base: All respondents (n=103)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Technology Drivers for Electronics Manufacturing Innovation (ranked order based on overall score*)



Q21. Please rank in order the top five technology drivers for electronics manufacturing innovation.

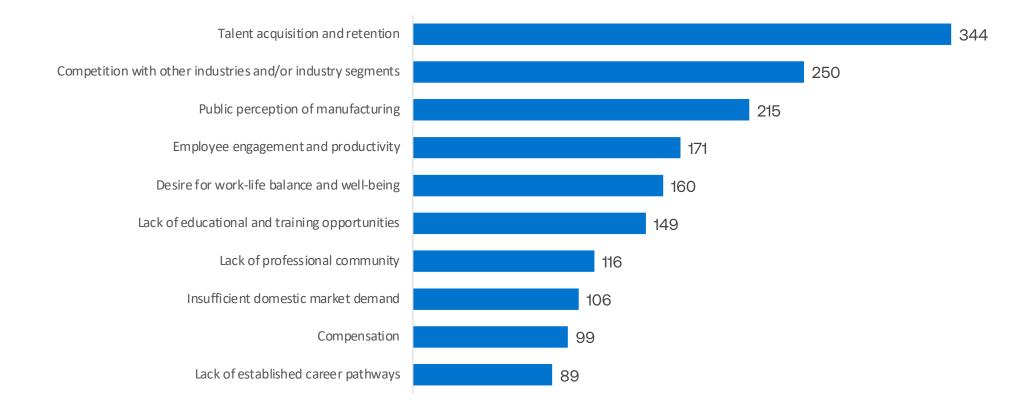
Base: All respondents (n=113)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Workforce Challenges Restraining Company Growth

(ranked order based on overall score*)



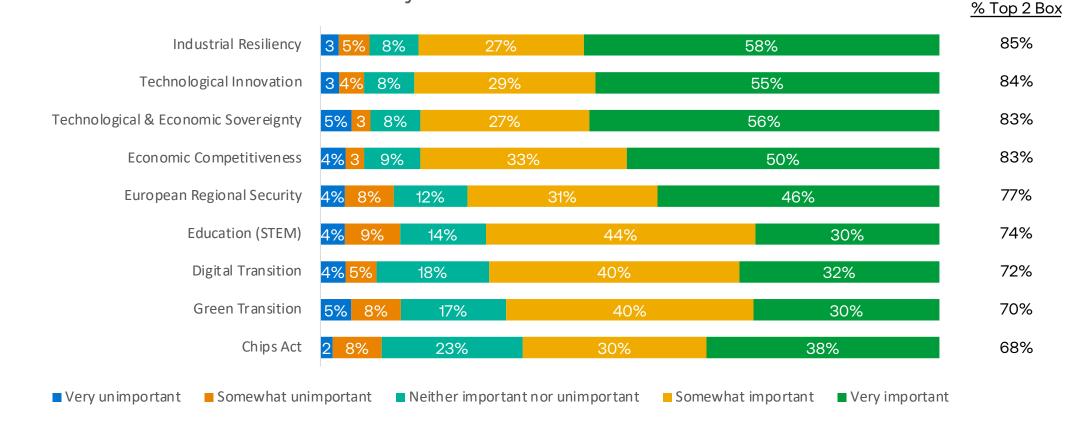
Q22. Please rank in order the top five workforce challenges restraining the growth of your company.

Base: All respondents (n=117)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Importance of European-based PCB Fabrication and Electronics Assembly to Government Priorities

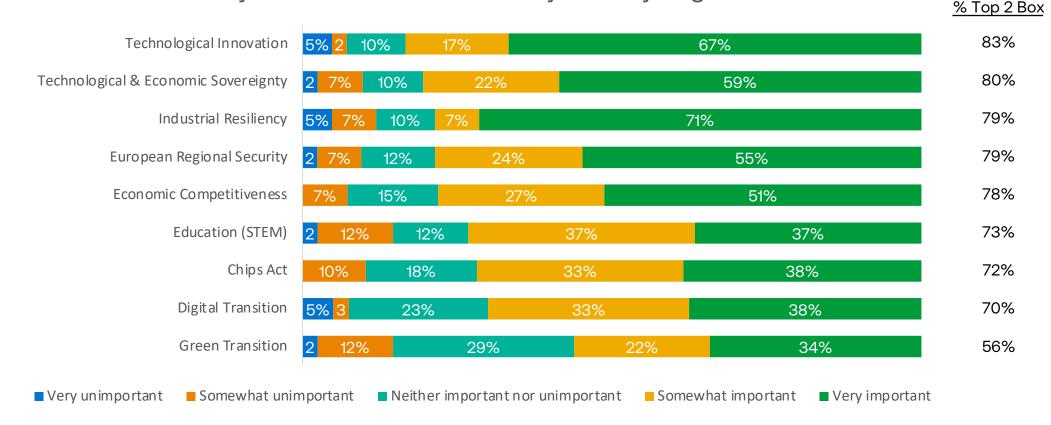


Q23. On a scale of 1 to 5, with 1 being "very unimportant" and 5 being "very important" please rate the importance of European-based PCB fabrication and electronics assembly to each of these government priorities: Base: All respondents (n=115-120)

Subgroup Analysis: PCB Industry Segment



Importance of European-based PCB Fabrication and Electronics Assembly to Government Priorities by Industry Segment: PCB

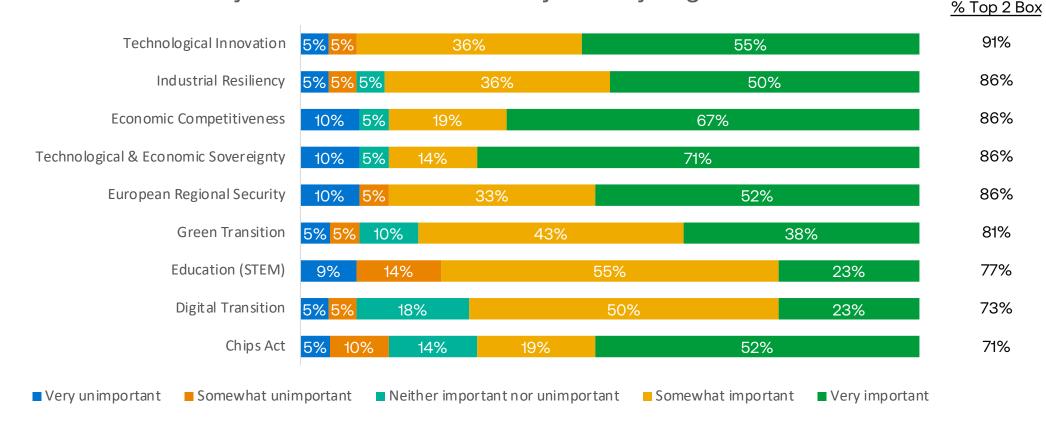


Q23. On a scale of 1 to 5, with 1 being "very unimportant" and 5 being "very important" please rate the importance of European-based PCB fabrication and electronics assembly to each of these government priorities: Base: PBC respondents (n=39-42)

Subgroup Analysis: OEM Industry Segment



Importance of European-based PCB Fabrication and Electronics Assembly to Government Priorities by Industry Segment: OEM

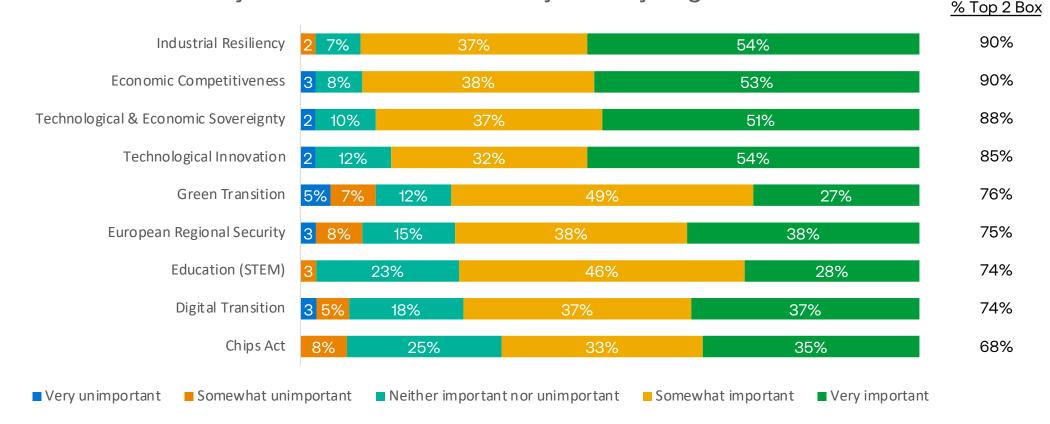


Q23. On a scale of 1 to 5, with 1 being "very unimportant" and 5 being "very important" please rate the importance of European-based PCB fabrication and electronics assembly to each of these government priorities: Base: OEM respondents (n=21-22)

Subgroup Analysis: EMS Industry Segment



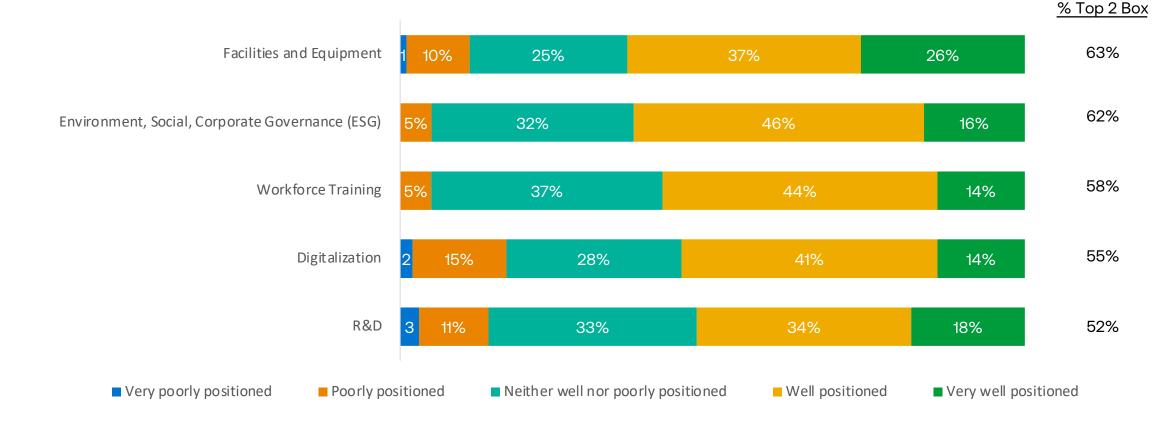
Importance of European-based PCB Fabrication and Electronics Assembly to Government Priorities by Industry Segment: EMS



Q23. On a scale of 1 to 5, with 1 being "very unimportant" and 5 being "very important" please rate the importance of European-based PCB fabrication and electronics assembly to each of these government priorities: Base: EMS respondents (n=38-41)



Company Positioning as it Relates to Remaining Relevant in the Marketplace Through Making Investments

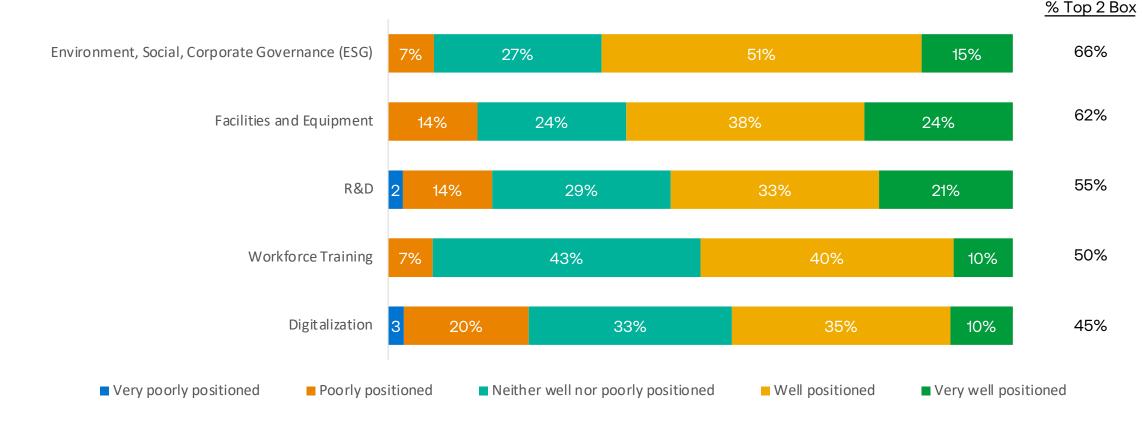


Q24. On a scale of 1 to 5, with 1 being "very poorly positioned" and 5 being "very well positioned," how well positioned is your company to remain relevant in the marketplace by making meaningful investments in the following areas: Base: All respondents (n=117-120)

Subgroup Analysis: PCB Industry Segment



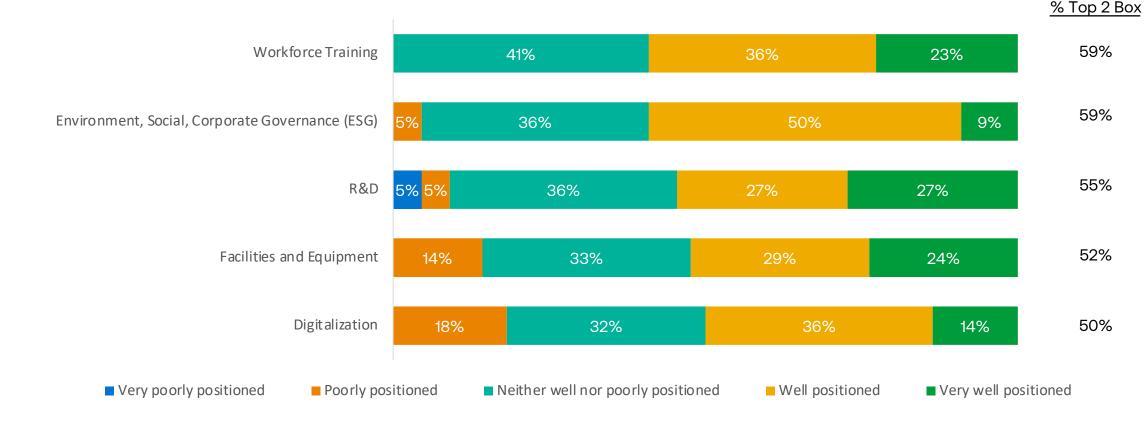
Company Positioning as it Relates to Remaining Relevant in the Marketplace Through Making Investments by Industry Segment: PCB



Q24. On a scale of 1 to 5, with 1 being "very poorly positioned" and 5 being "very well positioned," how well positioned is your company to remain relevant in the marketplace by making meaningful investments in the following areas: Base: PCB respondents (n=40-42)

Subgroup Analysis: OEM Industry Segment

Company Positioning as it Relates to Remaining Relevant in the Marketplace Through Making Investments by Industry Segment: OEM

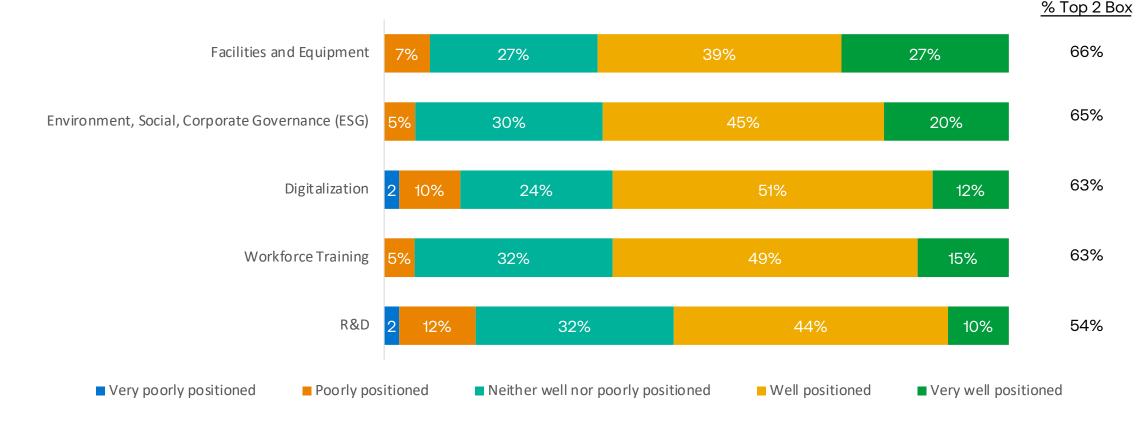


Q24. On a scale of 1 to 5, with 1 being "very poorly positioned" and 5 being "very well positioned," how well positioned is your company to remain relevant in the marketplace by making meaningful investments in the following areas: Base: OEM respondents (n=21-22)

Subgroup Analysis: EMS Industry Segment



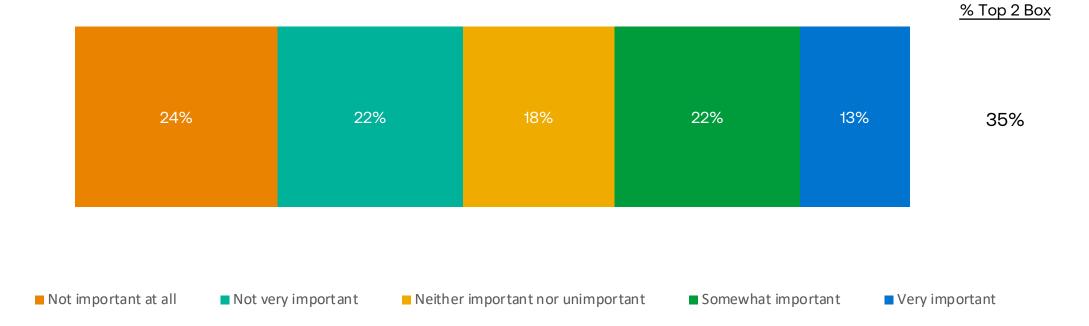
Company Positioning as it Relates to Remaining Relevant in the Marketplace Through Making Investments by Industry Segment: EMS



Q24. On a scale of 1 to 5, with 1 being "very poorly positioned" and 5 being "very well positioned," how well positioned is your company to remain relevant in the marketplace by making meaningful investments in the following areas: Base: EMS respondents (n=40-41)



Degree to Which Solvency of Business Depends on Government-Related Projects (among PCB and EMS respondents)

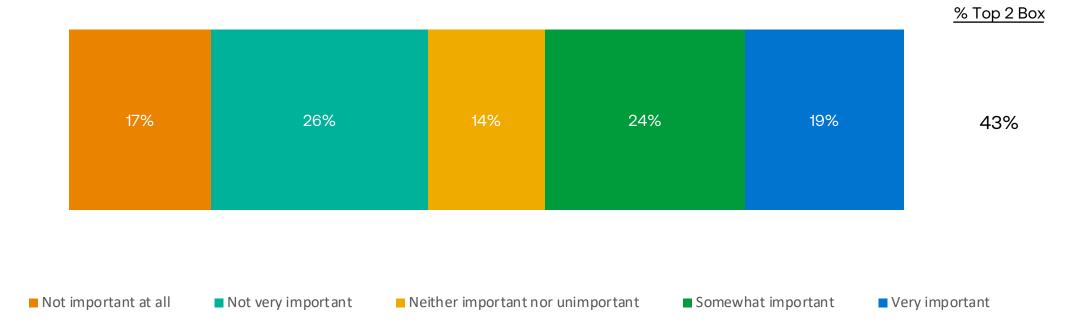


Q25. On a scale of 1 to 5, with 1 being "not important at all" and 5 being "very important," to what degree is the solvency of your business dependent on government-related projects, including those for the region's defense agencies? Base: PCB and EMS respondents (n=82)

Subgroup Analysis: PCB Industry Segment



Degree to Which Solvency of Business Depends on Government-Related Projects by Industry Segment: PCB

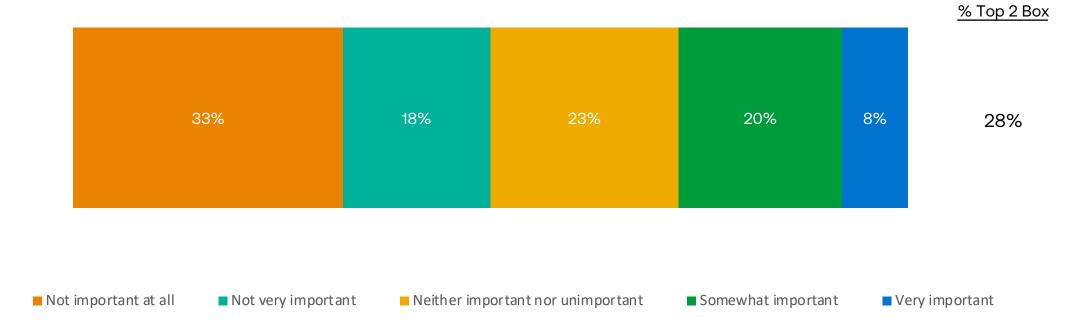


Q25. On a scale of 1 to 5, with 1 being "not important at all" and 5 being "very important," to what degree is the solvency of your business dependent on government-related projects, including those for the region's defense agencies? Base: PCB respondents (n=42)

Subgroup Analysis: EMS Industry Segment



Degree to Which Solvency of Business Depends on Government-Related Projects by Industry Segment: EMS



Q25. On a scale of 1 to 5, with 1 being "not important at all" and 5 being "very important," to what degree is the solvency of your business dependent on government-related projects, including those for the region's defense agencies? Base: EMS respondents (n=40)



Top Factors OEMs Prioritize When Making Sourcing Decisions for PCBs

(among PCB respondents; ranked order based on overall score*)



Q27. Please rank in order the top five factors that you believe OEMs prioritize when making sourcing decisions for PCBs.

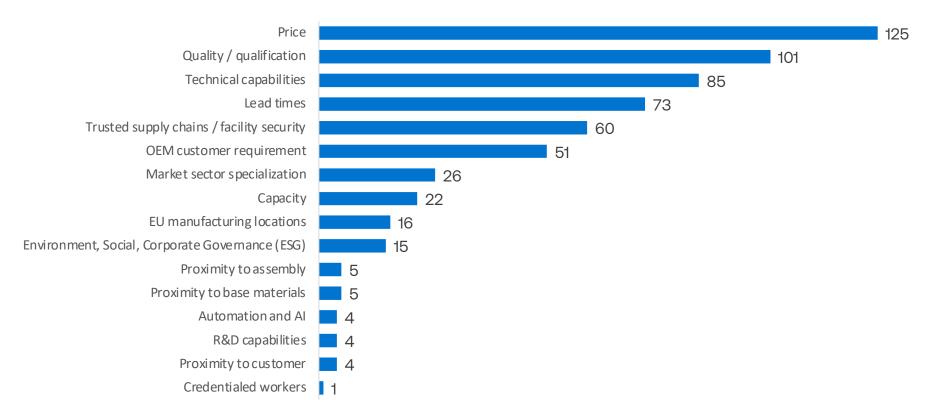
Base: PCB respondents (n=40)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors Company Considers When Making Sourcing Decisions for PCBs

(among EMS respondents; ranked order based on overall score*)



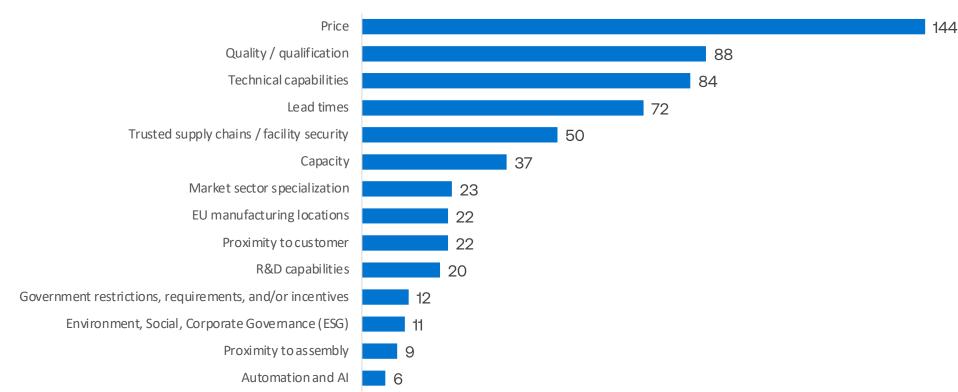
Q28. Please rank in order the top five factors your company considers when making sourcing decisions for PCBs.

Base: EMS respondents (n=40)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors OEMs Prioritize When Making Sourcing Decisions for Electronics Assemblies



(among EMS respondents; ranked order based on overall score*)

Q29. Please rank in order the top five factors that you believe OEMs prioritize when making sourcing decisions for electronics assemblies.

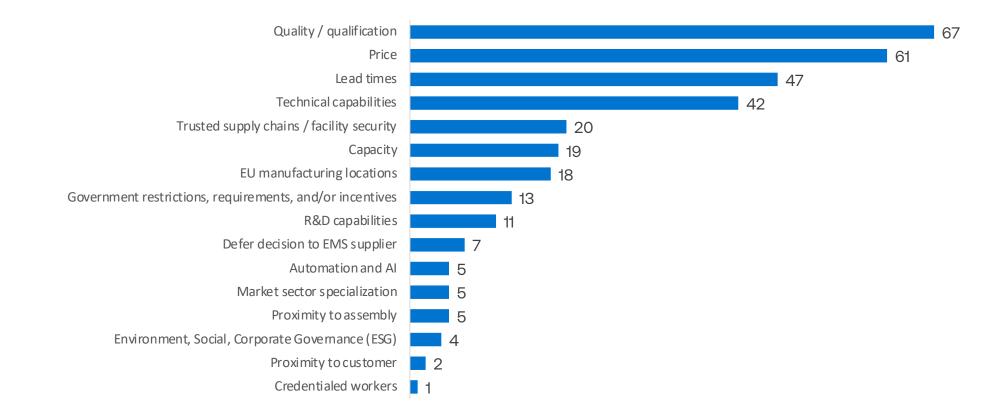
Base: EMS respondents (n=40)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors Company Considers When Making Sourcing Decisions for PCBs

(among OEM respondents; ranked order based on overall score*)



Q30. Please rank in order the top five factors your company considers when making sourcing decisions for PCBs.

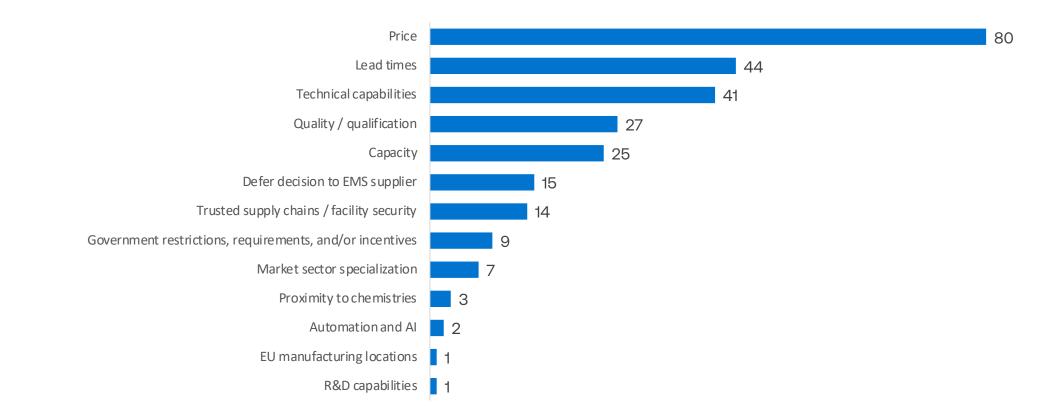
Base: OEM respondents (n=22)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors That Lead Company to Source PCBs from OUTSIDE of Europe

(among OEM respondents; ranked order based on overall score*)



Q31. Please rank in order the top five factors that lead your company to source PCBs from OUTSIDE of Europe.

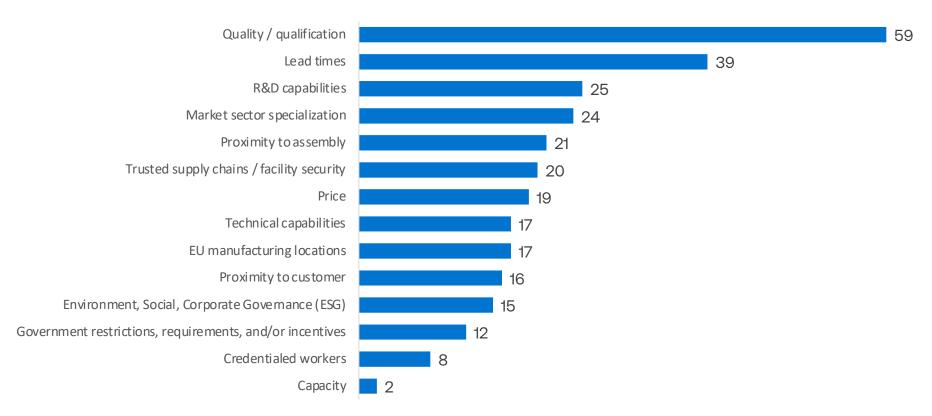
Base: OEM respondents (n=19)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors That Lead Company to Source PCBs from WITHIN Europe

(among OEM respondents; ranked order based on overall score*)



Q32. Please rank in order the top five factors that lead your company to source PCBs from WITHIN Europe.

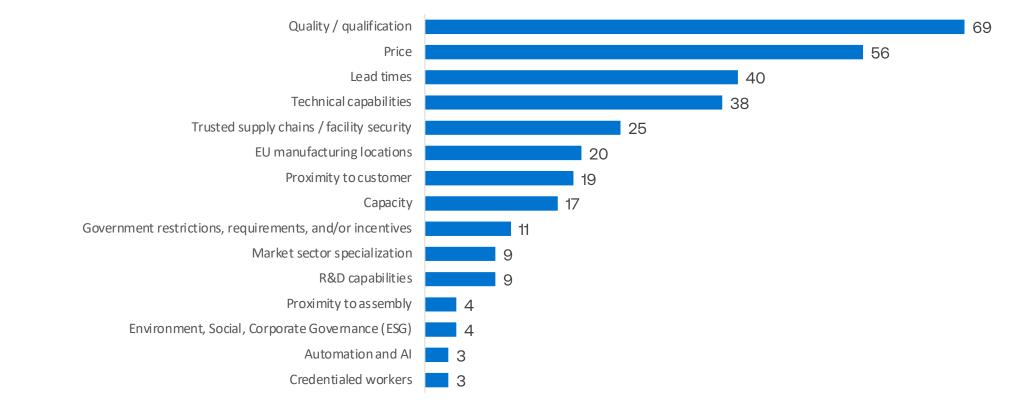
Base: OEM respondents (n=20)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors Company Considers When Making Sourcing Decisions for Electronics Assembly

(among OEM respondents; ranked order based on overall score*)



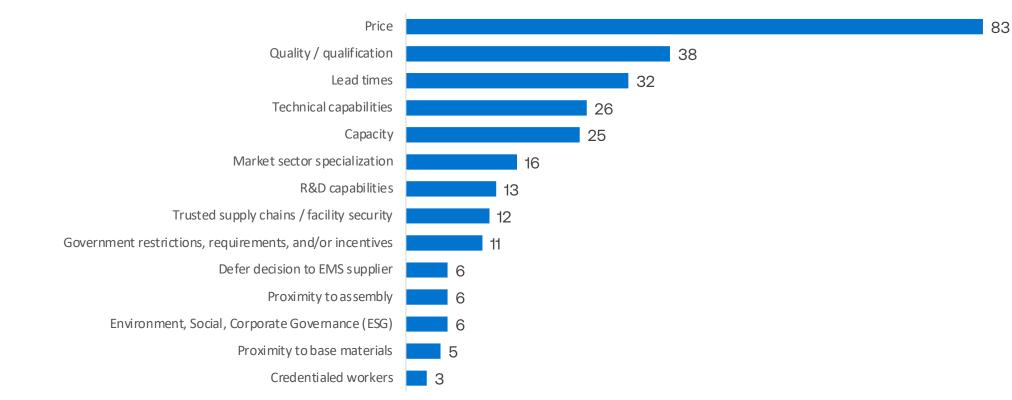
Q34. Please rank in order the top five factors your company considers when making sourcing decisions for electronics assembly.

Base: OEM respondents (n=22)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors That Lead Company to Source Electronics Assemblies from OUTSIDE of Europe



(among OEM respondents; ranked order based on overall score*)

Q35. Please rank in order the top five factors that lead your company to source electronics assemblies from OUTSIDE of Europe.

Base: OEM respondents (n=19)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Factors That Lead Company to Source Electronics Assemblies from WITHIN Europe

(among OEM respondents; ranked order based on overall score*)



Q36. Please rank in order the top five factors that lead your company to source electronics assemblies from WITHIN Europe.

Base: OEM respondents (n=21)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Relevance to Company's Decision to Increase Share of European-Based PCB and/or EMS Providers

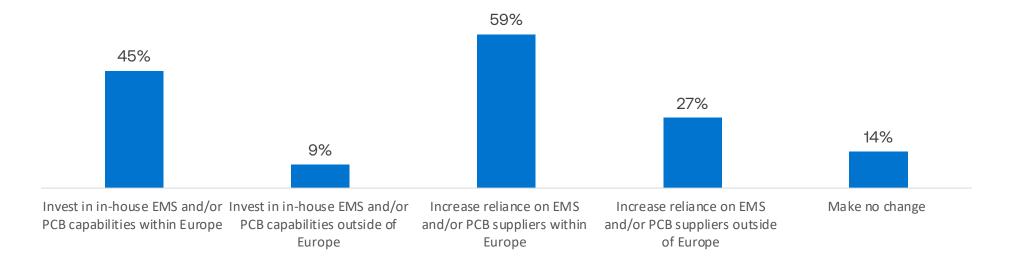
(among OEM respondents)



Q37. How relevant is each of the following in your company's decision to increase the share of European-based PCB and/or EMS providers in your value chain? Base: OEM respondents (n=21-22)



Expectations for Company in Ten Years (among OEM respondents)



Q39. Over the next 10 years, do you expect that your company will...Please select all that apply. Base: OEM respondents (n=22)



Top Areas of Government Policy Pertaining to Restraining or Promoting Growth (ranked order based on overall score*)

Environmental regulation 268 Trade and tariffs 263 Taxation 261 Labour regulations 260 Internal market rules 114 Government procurement 101 101 Loans R&D capabilities 87 Health and safety rules 76 Intellectual property 55

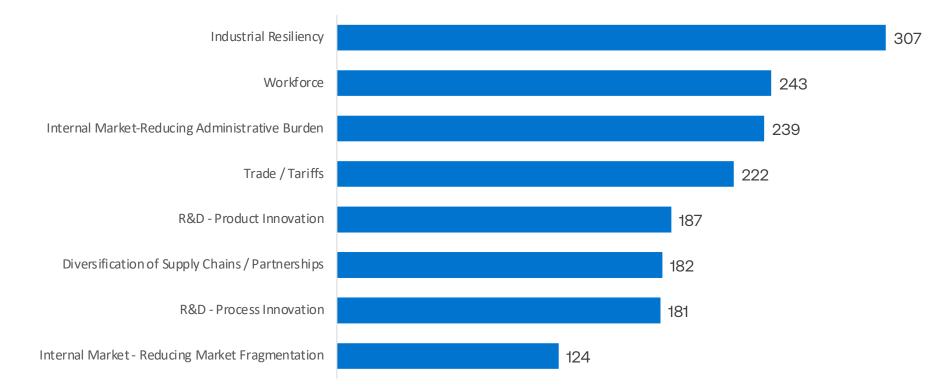
Q40. Please rank in order the top five areas of government policy as they pertain to restraining or promoting the growth of your company.

Base: All respondents (n=111)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).



Top Public Policy Areas That Would Most Support Robust European PCB and EMS Industries (ranked order based on overall score*)



Q41. Please rank in order the top five public policy areas that would most support robust European PCB and EMS industries.

Base: All respondents (n=117)

*Overall score is a weighted calculation. Items ranked first are given a higher value or "weight." The score, computed for each answer option, is the sum of all the weighted values, which are determined the number of allowable items to rank (in this case, top five).