

GLOBAL TECHNOLOGY INVESTMENT PREDICTIONS

US, UK, Brazil, India, China, Germany,
Japan, Canada

NOVEMBER 2022

Key Findings

- 78% of Global Business leaders surveyed say that their businesses will be investing in technology in the next 12 months.
- Cyber risks are both the biggest drivers and the largest hinderance to tech investments.
- Cybersecurity, AI, and cloud computing solutions are among the top tech investments planned in the next 2 years. These investments are motivated by profitability more than customer demand.
- The technologies most expected to change industries in the next 5 years are AI based: Digital employees and Generative AI
- 60% of Global Business leaders surveyed say that their business will be investing in Environmental, social and governance goals in the next 12 months
- Meeting ESG goals and overcoming supply chain issues are the top drivers of sustainability investments. Pressure from employees is the lowest of the measured drivers
- Investing in more energy efficient computing and IT is among the top sustainability investments planned for the next 2 years, only lagging behind sustainable operations

This poll was conducted by Morning Consult between November 15-November 26, 2022 among a sample of 4001 Business Leaders (IT or Corporate Strategy decision makers) in the US, UK, Brazil, China, India, Germany, Japan, and Canada. The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.

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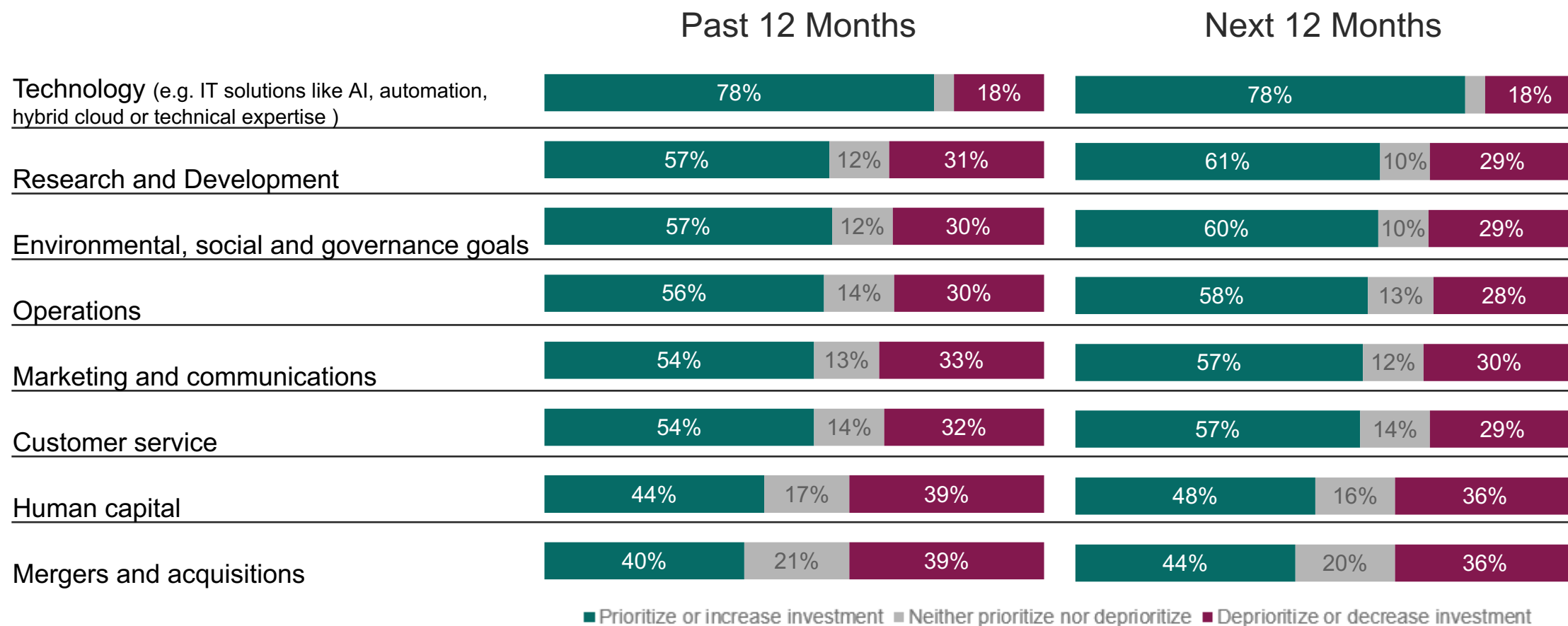
APPENDIX: MARKET AND INDUSTRY LEVEL RESULTS



PAST AND FUTURE INVESTMENT AREAS

Planned investment priorities over the next 12 months are similar, though slightly more optimistic, than priorities over the past 12 months

How did your business prioritize or invest in the following areas during the last 12 months? // How does your business plan to prioritize or invest in the following areas in the next 12 months?



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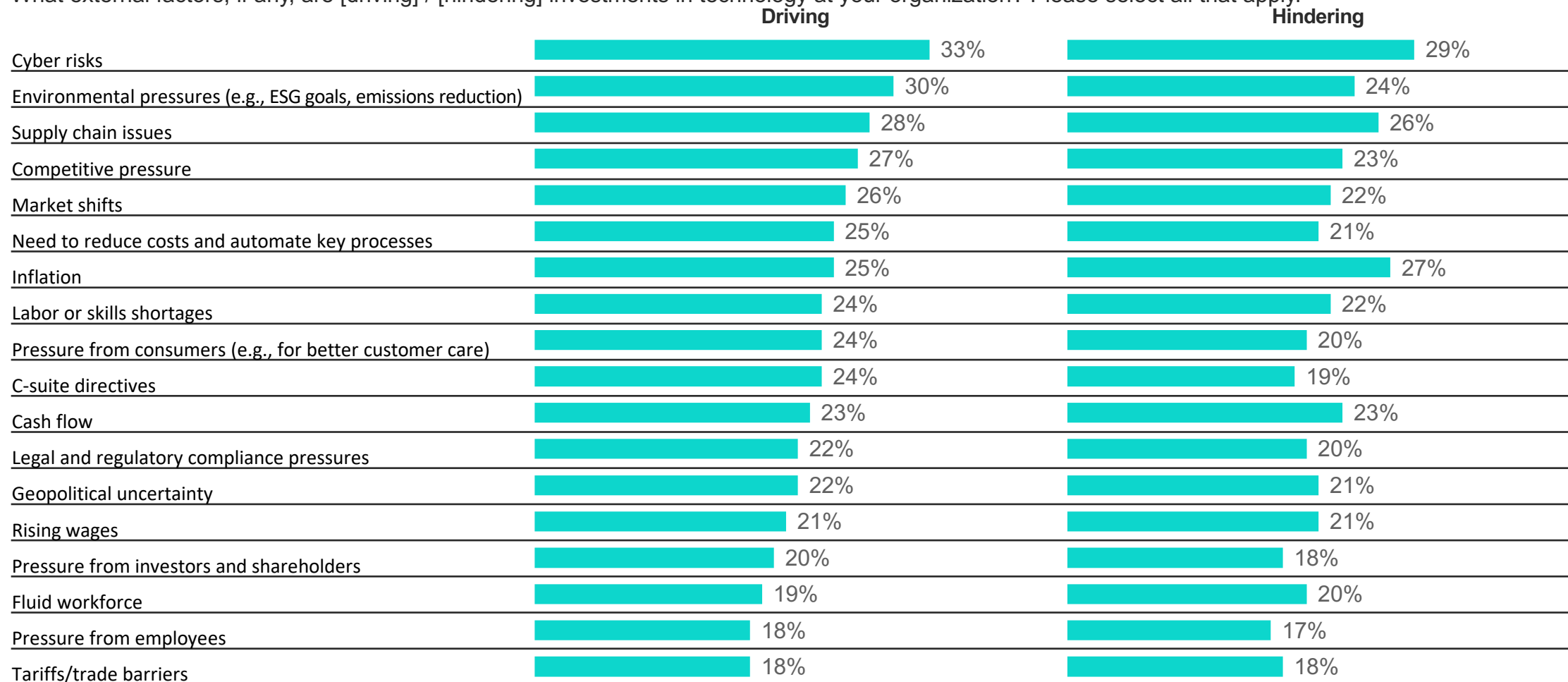
APPENDIX: MARKET AND INDUSTRY LEVEL RESULTS



TECH INVESTMENTS

Many of the same factors that are driving investments in technology are also slowing it down – Cyber risks are both the biggest drivers and the largest hinderance to tech investments. Only Inflation is hindering more than it is driving.

What external factors, if any, are [driving] / [hindering] investments in technology at your organization? Please select all that apply.



TECH INVESTMENTS

Cybersecurity, AI, and cloud computing solutions are among the top tech investments planned in the next 2 years. These investments are motivated by profitability more than customer demand.

What type of technologies does your company plan to invest in over the next two years? Please select all that apply // Is your business investing in these technologies because you think they will make your company more profitable over the long term or due to demands by your customers?

	% Planned investments	Profitable	Customers
5G	39%	78%	58%
Cybersecurity solutions	36%	77%	52%
Internet of Things (IoT) solutions	35%	79%	54%
Artificial intelligence (machine learning) solutions	33%	80%	53%
Cloud computing (public/private/hybrid)	32%	80%	46%
Green IT solutions	29%	73%	55%
Supply chain solutions	27%	76%	54%
Augmented, virtual, extended reality (AR, VR, XR)	26%	74%	57%
Edge computing	25%	77%	52%
Hardware (e.g. servers, specialized AI chips)	25%	74%	52%
Automation solutions	24%	76%	49%
Robotics	22%	77%	49%
Blockchains and distributed ledgers	22%	77%	49%
Quantum computing	21%	74%	51%
Natural language processing, voice technologies, chatbots	20%	73%	58%
Talent	20%	74%	52%
Consulting services	19%	72%	53%
Asset management solutions	19%	76%	48%
Autonomous vehicles or drones	16%	71%	53%

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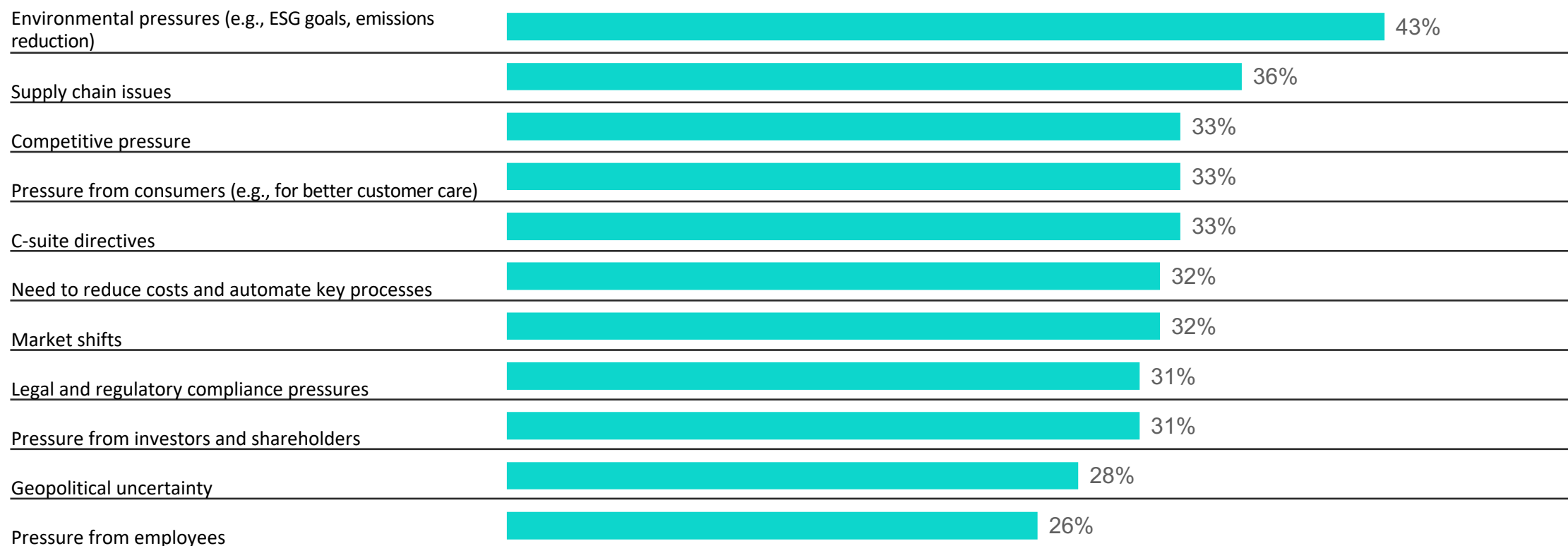


SUSTAINABILITY INVESTMENTS

Meeting ESG goals and overcoming supply chain issues are the top drivers of sustainability investments. Pressure from employees is the lowest of the measured drivers

What external factors, if any, are driving investments in sustainability at your organization? Please select all that apply. [% Selected]

Driving sustainability Investments

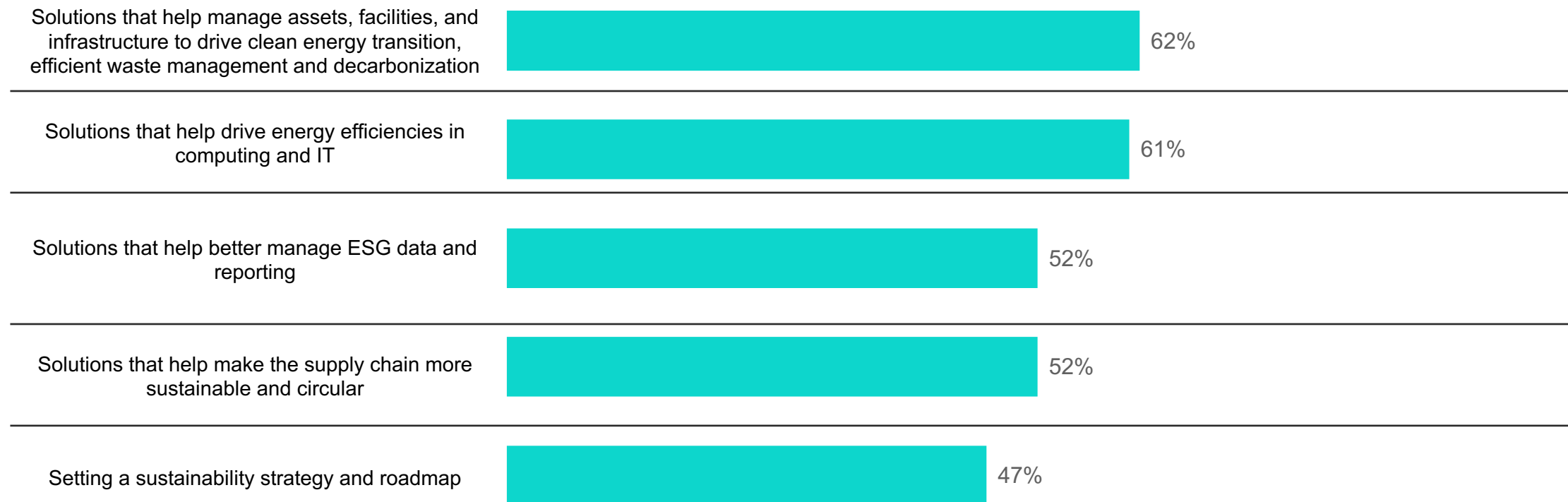


SUSTAINABILITY INVESTMENTS

Investments in more sustainable operations and more energy efficient computing are the top sustainability investments planned for the next two years

How does your company plan to invest in achieving its sustainability goals and to making the company more resilient over the next two years? [% Selected]

Sustainability Investments



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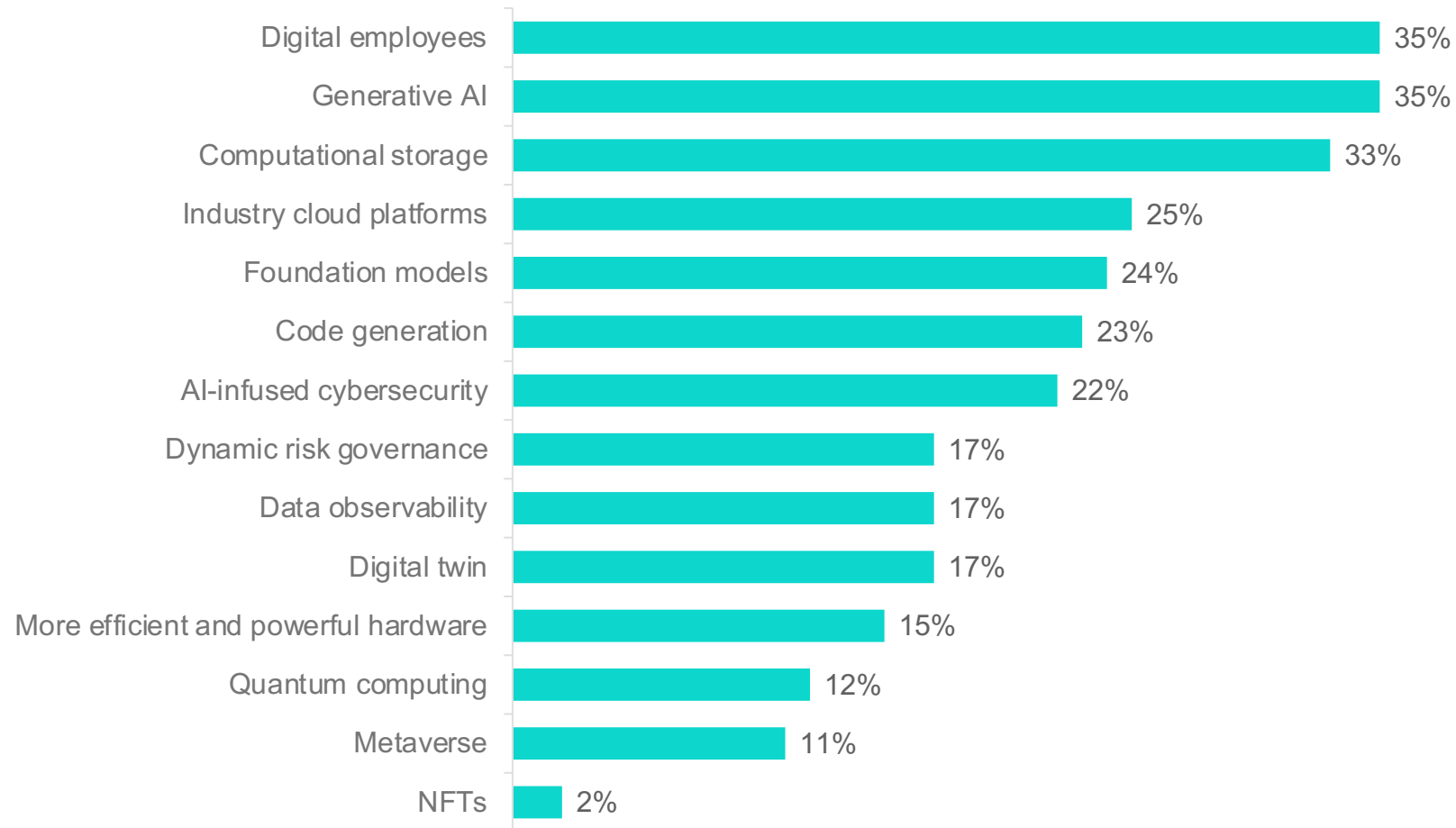
EMERGING TECHNOLOGY

APPENDIX: MARKET AND INDUSTRY LEVEL RESULTS



The top emerging technologies that are expected to change industries are AI based: Digital employees and Generative AI

What emerging technology do you think will change your business the most in the next 3-5 years? Please select up to 3 [% Selected]



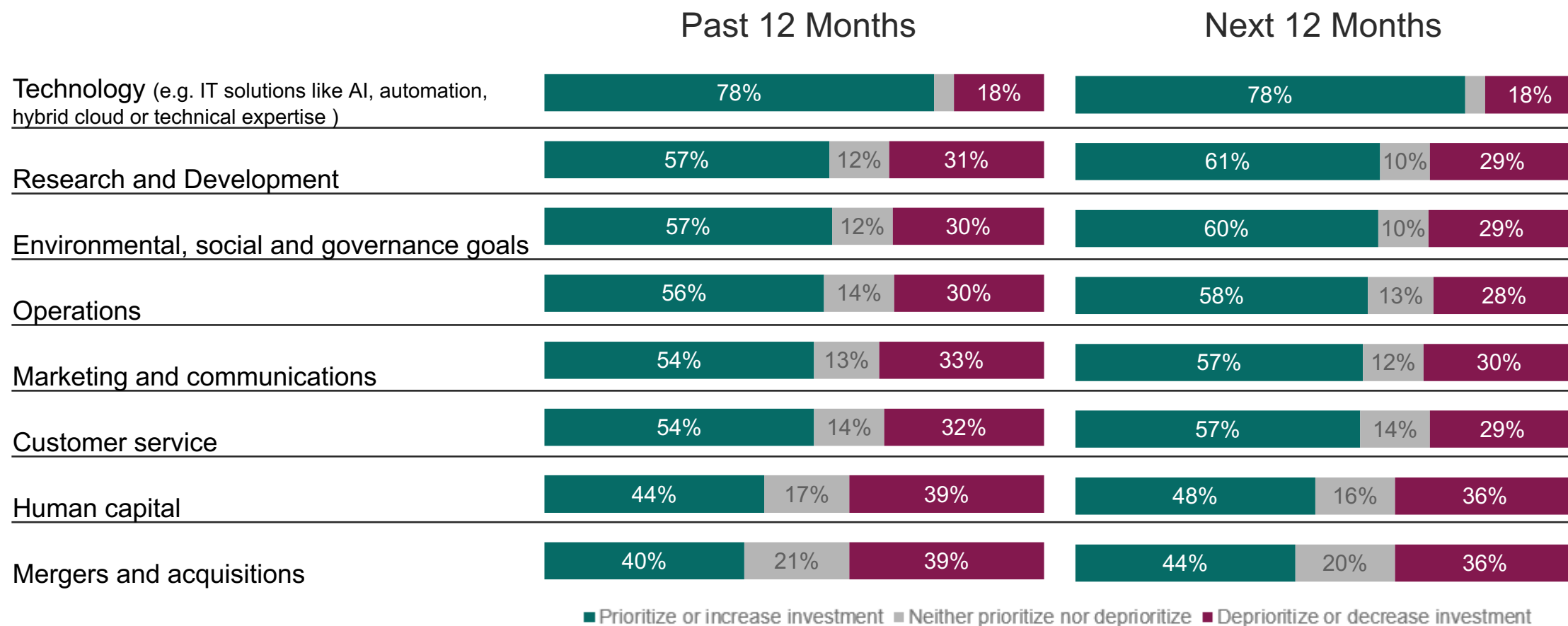


Appendix

PAST AND FUTURE INVESTMENT AREAS

Planned investment priorities over the next 12 months are similar, though slightly more optimistic, than priorities over the past 12 months

How did your business prioritize or invest in the following areas during the last 12 months? // How does your business plan to prioritize or invest in the following areas in the next 12 months?



APPENDIX: PAST AND FUTURE INVESTMENT AREAS

Areas of investment for previous 12 months – By market

How did your business prioritize or invest in the following areas during the **last 12 months**? [Showing % Prioritize or invest]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample size	4001	500	500	500	500	500	500	500	501
Technology (e.g. IT solutions like AI, automation, hybrid cloud or technical expertise)	78%	80%	77%	75%	87%	69%	78%	78%	79%
Research and Development	57%	55%	66%	55%	78%	49%	53%	53%	48%
Environmental, social and governance goals	57%	56%	64%	54%	76%	50%	51%	55%	49%
Operations	56%	60%	59%	52%	61%	52%	53%	57%	55%
Marketing and communications	54%	60%	53%	47%	71%	53%	46%	55%	47%
Customer service	54%	57%	57%	50%	60%	50%	51%	56%	52%
Human capital	44%	48%	49%	40%	61%	36%	38%	43%	40%
Mergers and acquisitions	40%	43%	41%	38%	56%	35%	39%	35%	33%

APPENDIX: PAST AND FUTURE INVESTMENT AREAS

Areas of investment for previous 12 months – By industry

How did your business prioritize or invest in the following areas during the **last 12 months**? [Showing % Prioritize]

	Financial Services	Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Professional Social Work	Services	Manufacturing	Transportation
Sample Size	307	121	714	191	840	198	154	246	765	151
Technology (e.g. IT solutions like AI, automation, hybrid cloud or technical expertise)	76%	66%	75%	76%	82%	72%	82%	83%	78%	75%
Research and Development	59%	54%	49%	55%	68%	44%	55%	60%	59%	45%
Environmental, social and governance goals	64%	44%	52%	62%	66%	48%	57%	55%	56%	54%
Operations	57%	45%	57%	63%	54%	57%	54%	61%	56%	57%
Marketing and communications	57%	52%	49%	54%	62%	52%	53%	58%	50%	48%
Customer service	56%	54%	51%	57%	55%	54%	56%	59%	54%	50%
Human capital	52%	37%	39%	44%	48%	42%	37%	43%	44%	44%
Mergers and acquisitions	44%	40%	39%	35%	43%	40%	37%	42%	37%	43%

APPENDIX: PAST AND FUTURE INVESTMENT AREAS

Areas of investment for next 12 months – By market

How does your business plan to prioritize or invest in the following areas in the **next 12 months**? [Showing % Prioritize]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample size	4001	500	500	500	500	500	500	500	501
Technology (e.g. IT solutions like AI, automation, hybrid cloud or technical expertise)	78%	78%	79%	73%	87%	76%	75%	77%	77%
Research and Development	61%	61%	66%	60%	79%	54%	54%	58%	52%
Environmental, social and governance goals	60%	63%	63%	56%	79%	51%	56%	59%	56%
Operations	58%	60%	59%	59%	62%	55%	52%	61%	60%
Marketing and communications	57%	62%	55%	51%	73%	53%	53%	59%	51%
Customer service	57%	60%	55%	52%	66%	53%	52%	58%	58%
Human capital	48%	50%	51%	42%	65%	41%	46%	44%	47%
Mergers and acquisitions	44%	48%	43%	39%	61%	40%	40%	43%	42%

APPENDIX: PAST AND FUTURE INVESTMENT AREAS

Areas of investment for next 12 months – By industry

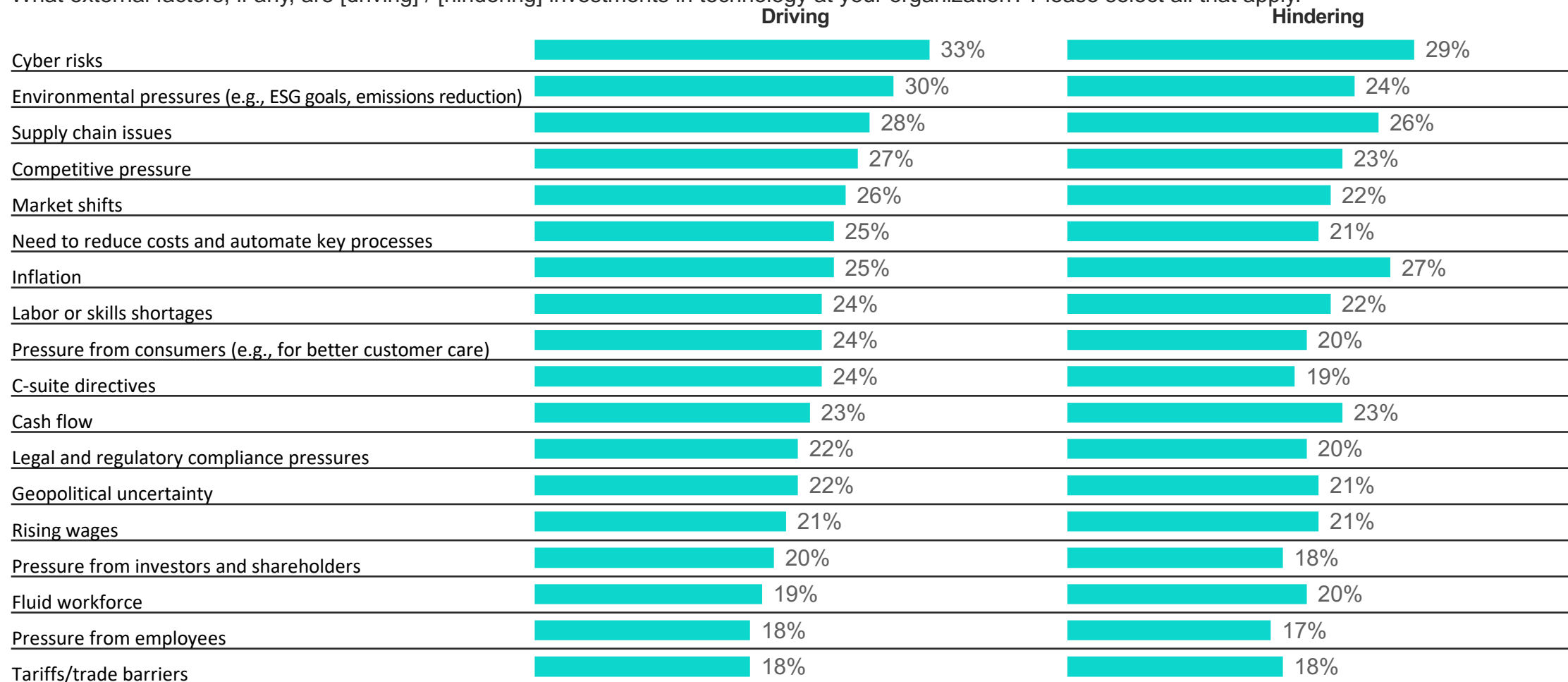
How does your business plan to prioritize or invest in the following areas in the **next 12 months**? [Showing % Prioritize]

	Financial Services	Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Professional Social Work	Services	Manufacturing	Transportation
Sample Size	307	121	714	191	840	198	154	246	765	151
Technology (e.g. IT solutions like AI, automation, hybrid cloud or technical expertise)	71%	68%	77%	75%	82%	76%	84%	87%	76%	77%
Research and Development	61%	56%	52%	64%	68%	50%	60%	70%	62%	58%
Environmental, social and governance goals	63%	51%	52%	65%	69%	62%	60%	65%	58%	58%
Operations	61%	62%	60%	64%	52%	61%	67%	66%	58%	58%
Marketing and communications	65%	47%	50%	57%	63%	55%	63%	59%	53%	62%
Customer service	59%	50%	52%	62%	57%	52%	68%	63%	56%	62%
Human capital	52%	46%	42%	55%	51%	49%	54%	48%	47%	51%
Mergers and acquisitions	47%	47%	42%	46%	48%	41%	43%	47%	39%	47%

TECH INVESTMENTS

Many of the same factors that are driving investments in technology are also slowing it down – Cyber risks are both the biggest drivers and the largest hinderance to tech investments. Only Inflation is hindering more than it is driving.

What external factors, if any, are [driving] / [hindering] investments in technology at your organization? Please select all that apply.



APPENDIX: TECH INVESTMENTS

External factors driving tech investment – by market

What external factors, if any, are driving investments in technology at your organization? Please select all that apply. [% Selected]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size	3574	451	445	442	473	419	444	449	451
Cyber risks	33%	32%	22%	30%	45%	31%	34%	35%	34%
Environmental pressures (e.g., ESG goals, emissions reduction)	30%	26%	40%	24%	44%	25%	25%	33%	26%
Supply chain issues	28%	22%	29%	28%	32%	23%	25%	33%	31%
Competitive pressure	27%	23%	33%	24%	32%	28%	26%	26%	26%
Market shifts	26%	29%	37%	21%	27%	27%	21%	25%	23%
Need to reduce costs and automate key processes	25%	19%	39%	22%	30%	22%	20%	27%	21%
Inflation	25%	24%	19%	26%	30%	23%	23%	27%	25%
Labor or skills shortages	24%	21%	20%	27%	26%	27%	25%	26%	22%
Pressure from consumers (e.g., for better customer care)	24%	21%	29%	17%	35%	22%	22%	22%	23%
C-suite directives	24%	23%	26%	20%	36%	22%	21%	27%	18%
Cash flow	23%	19%	10%	27%	25%	22%	24%	27%	29%
Legal and regulatory compliance pressures	22%	20%	17%	22%	30%	16%	25%	22%	22%
Geopolitical uncertainty	22%	22%	18%	22%	30%	20%	22%	21%	23%
Rising wages	21%	19%	12%	21%	26%	16%	21%	25%	24%
Pressure from investors and shareholders	20%	18%	19%	21%	27%	21%	18%	20%	19%
Fluid workforce	19%	20%	13%	17%	22%	19%	20%	17%	20%
Pressure from employees	18%	17%	13%	17%	22%	16%	19%	19%	20%
Tariffs/trade barriers	18%	15%	16%	16%	19%	20%	19%	19%	18%
None of the above	0%	0%	0%	0%	0%	0%	0%	0%	0%

Base: Leaders who reported prioritizing tech investments in the past 12m or next 12m

APPENDIX: TECH INVESTMENTS

External factors driving tech investment – by industry

What external factors, if any, are driving investments in technology at your organization? Please select all that apply. [% Selected]

	Financial Services	*Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Social Work	Professional Services	Manufacturing	Transportation
Sample size	261	98	639	167	768	175	143	230	683	133
Cyber risks	32%	32%	31%	33%	32%	33%	33%	49%	32%	36%
Environmental pressures (e.g., ESG goals, emissions reduction)	30%	17%	24%	37%	34%	25%	32%	41%	33%	29%
Supply chain issues	25%	21%	25%	38%	24%	25%	32%	45%	30%	27%
Competitive pressure	19%	27%	24%	35%	32%	27%	22%	34%	25%	28%
Market shifts	24%	23%	22%	27%	30%	14%	20%	30%	29%	22%
Need to reduce costs and automate key processes	23%	17%	22%	37%	26%	24%	28%	30%	29%	17%
Inflation	25%	18%	22%	22%	32%	26%	23%	29%	21%	29%
Labor or skills shortages	23%	10%	24%	23%	22%	29%	24%	25%	27%	28%
Pressure from consumers (e.g., for better customer care)	22%	18%	23%	26%	26%	23%	17%	23%	24%	26%
C-suite directives	26%	18%	23%	27%	25%	20%	29%	31%	24%	23%
Cash flow	24%	19%	24%	22%	18%	27%	33%	31%	21%	28%
Legal and regulatory compliance pressures	22%	17%	21%	21%	22%	19%	16%	24%	22%	24%
Geopolitical uncertainty	21%	16%	21%	22%	23%	19%	26%	31%	21%	26%
Rising wages	20%	20%	22%	20%	21%	23%	23%	23%	17%	22%
Pressure from investors and shareholders	20%	20%	18%	17%	20%	22%	25%	23%	19%	23%
Fluid workforce	18%	23%	19%	21%	19%	21%	18%	18%	15%	24%
Pressure from employees	21%	15%	20%	20%	17%	12%	13%	20%	16%	16%
Tariffs/trade barriers	18%	21%	17%	16%	17%	21%	24%	18%	17%	19%
None of the above	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

APPENDIX: TECH INVESTMENTS

External factors hindering tech investment – by market

What external factors, if any, are hindering or slowing investments in technology at your organization? Please select all that apply. [% Selected]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size	3574	451	445	442	473	419	444	449	451
Cyber risks	29%	23%	19%	29%	40%	26%	26%	35%	31%
Environmental pressures (e.g., ESG goals, emissions reduction)	24%	18%	20%	24%	36%	24%	23%	23%	21%
Supply chain issues	26%	18%	18%	30%	32%	25%	28%	29%	31%
Competitive pressure	23%	19%	19%	22%	28%	24%	23%	23%	29%
Market shifts	22%	23%	21%	21%	28%	22%	18%	23%	20%
Need to reduce costs and automate key processes	21%	17%	18%	18%	30%	20%	17%	23%	23%
Inflation	27%	30%	24%	25%	34%	24%	21%	30%	26%
Labor or skills shortages	22%	21%	20%	20%	25%	23%	26%	21%	20%
Pressure from consumers (e.g., for better customer care)	20%	16%	11%	20%	32%	18%	18%	21%	22%
C-suite directives	19%	16%	12%	15%	32%	20%	19%	21%	19%
Cash flow	23%	16%	15%	28%	30%	18%	25%	26%	29%
Legal and regulatory compliance pressures	20%	14%	15%	21%	29%	19%	20%	20%	19%
Geopolitical uncertainty	21%	21%	18%	24%	27%	19%	19%	25%	17%
Rising wages	21%	18%	18%	17%	29%	18%	20%	22%	23%
Pressure from investors and shareholders	18%	15%	11%	18%	25%	20%	21%	17%	20%
Fluid workforce	20%	19%	17%	20%	22%	17%	20%	19%	22%
Pressure from employees	17%	16%	13%	18%	22%	18%	15%	16%	16%
Tariffs/trade barriers	18%	18%	16%	18%	23%	18%	20%	18%	16%
None of the above	2%	4%	9%	0%	1%	1%	2%	1%	1%

APPENDIX: TECH INVESTMENTS

External factors hindering tech investment – by industry

What external factors, if any, are hindering or slowing investments in technology at your organization? Please select all that apply. [% Selected]

	Financial Services	*Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Professional Social Work	Services	Manufacturing	Transportation
Sample size	261	98	639	167	768	175	143	230	683	133
Cyber risks	25%	23%	27%	29%	30%	26%	29%	44%	27%	26%
Environmental pressures (e.g., ESG goals, emissions reduction)	20%	19%	23%	17%	24%	23%	24%	34%	24%	24%
Supply chain issues	20%	18%	27%	19%	26%	24%	28%	47%	25%	34%
Competitive pressure	22%	22%	24%	23%	21%	25%	32%	31%	21%	20%
Market shifts	23%	18%	22%	23%	28%	19%	16%	21%	18%	25%
Need to reduce costs and automate key processes	15%	16%	20%	25%	22%	18%	19%	26%	21%	17%
Inflation	28%	27%	23%	25%	33%	22%	17%	33%	25%	27%
Labor or skills shortages	20%	17%	19%	23%	22%	26%	28%	31%	20%	22%
Pressure from consumers (e.g., for better customer care)	15%	14%	20%	19%	19%	23%	17%	30%	18%	30%
C-suite directives	17%	20%	19%	16%	18%	26%	24%	26%	16%	18%
Cash flow	22%	21%	26%	24%	21%	23%	26%	32%	22%	25%
Legal and regulatory compliance pressures	19%	17%	20%	17%	20%	20%	25%	26%	18%	20%
Geopolitical uncertainty	23%	21%	21%	22%	20%	21%	23%	29%	20%	22%
Rising wages	16%	12%	23%	19%	23%	18%	24%	26%	16%	23%
Pressure from investors and shareholders	13%	16%	19%	20%	19%	15%	22%	27%	17%	17%
Fluid workforce	18%	20%	21%	22%	19%	22%	15%	21%	18%	24%
Pressure from employees	10%	14%	17%	16%	16%	17%	19%	23%	16%	19%
Tariffs/trade barriers	19%	24%	16%	20%	18%	17%	19%	24%	18%	23%
None of the above	5%	0%	1%	7%	2%	2%	1%	1%	4%	1%

TECH INVESTMENTS

Cybersecurity, AI, and cloud computing solutions are among the top tech investments planned in the next 2 years. These investments are motivated by profitability more than customer demand.

What type of technologies does your company plan to invest in over the next two years? Please select all that apply // Is your business investing in these technologies because you think they will make your company more profitable over the long term or due to demands by your customers?

	% Planned investments	Profitable	Customers
5G	39%	78%	58%
Cybersecurity solutions	36%	77%	52%
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Artificial intelligence (machine learning) solutions	33%	80%	53%
Cloud computing (public/private/hybrid)	32%	80%	46%
Green IT solutions	29%	73%	55%
Supply chain solutions	27%	76%	54%
Augmented, virtual, extended reality (AR, VR, XR)	26%	74%	57%
Edge computing	25%	77%	52%
Hardware (e.g. servers, specialized AI chips)	25%	74%	52%
Automation solutions	24%	76%	49%
Robotics	22%	77%	49%
Blockchains and distributed ledgers	22%	77%	49%
Quantum computing	21%	74%	51%
Natural language processing, voice technologies, chatbots	20%	73%	58%
Talent	20%	74%	52%
Consulting services	19%	72%	53%
Asset management solutions	19%	76%	48%
Autonomous vehicles or drones	16%	71%	53%

Specific technology investments – by market

What type of technologies does your company plan to invest in over the next two years? Please select all that apply [% Selected]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size	3574	451	445	442	473	419	444	449	451
5G	39%	39%	38%	36%	52%	35%	34%	39%	42%
Cybersecurity solutions	36%	35%	39%	37%	46%	32%	32%	34%	32%
Internet of Things (IoT) solutions	35%	33%	37%	28%	52%	33%	30%	36%	31%
Artificial intelligence (machine learning) solutions	33%	29%	47%	25%	40%	37%	24%	32%	26%
Cloud computing (public/private/hybrid)	32%	36%	45%	27%	37%	29%	27%	33%	25%
Green IT solutions	29%	36%	37%	28%	32%	23%	25%	29%	24%
Supply chain solutions	27%	25%	35%	22%	32%	25%	24%	27%	25%
Augmented, virtual, extended reality (AR, VR, XR)	26%	27%	31%	18%	39%	22%	24%	23%	23%
Edge computing	25%	22%	22%	24%	30%	27%	22%	26%	27%
Hardware (e.g. servers, specialized AI chips)	25%	26%	33%	22%	31%	26%	22%	25%	16%
Automation solutions	24%	27%	33%	17%	23%	22%	24%	24%	22%
Robotics	22%	18%	30%	15%	30%	22%	22%	20%	21%
Blockchains and distributed ledgers	22%	21%	22%	17%	28%	18%	24%	22%	19%
Quantum computing	21%	20%	20%	21%	30%	18%	18%	18%	22%
Natural language processing, voice technologies, chatbots	20%	18%	22%	18%	28%	19%	18%	20%	17%
Talent	20%	20%	19%	14%	21%	22%	22%	20%	21%
Consulting services	19%	15%	16%	17%	24%	20%	21%	22%	16%
Asset management solutions	19%	19%	21%	15%	24%	21%	17%	17%	18%
Autonomous vehicles or drones	16%	14%	16%	15%	22%	16%	14%	16%	15%
None of the above	0%	0%	0%	0%	0%	0%	0%	0%	0%

APPENDIX: TECH INVESTMENTS

Specific technology investments – by industry

What type of technologies does your company plan to invest in over the next two years? Please select all that apply [% Selected]

	Financial Services	*Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Social Work	Professional Services	Manufacturing	Transportation
Sample size	261	98	639	167	768	175	143	230	683	133
5G	39%	36%	38%	43%	38%	35%	52%	53%	33%	47%
Cybersecurity solutions	36%	18%	31%	41%	37%	36%	32%	48%	36%	46%
Internet of Things (IoT) solutions	36%	28%	30%	43%	37%	34%	44%	43%	33%	38%
Artificial intelligence (machine learning) solutions	33%	20%	26%	41%	35%	26%	30%	42%	36%	26%
Cloud computing (public/private/hybrid)	35%	24%	27%	47%	34%	27%	38%	38%	32%	32%
Green IT solutions	27%	26%	29%	28%	32%	29%	31%	36%	27%	31%
Supply chain solutions	27%	20%	24%	35%	26%	23%	29%	37%	30%	26%
Augmented, virtual, extended reality (AR, VR, XR)	27%	16%	24%	31%	29%	25%	20%	30%	25%	29%
Edge computing	27%	20%	23%	34%	21%	22%	27%	35%	28%	23%
Hardware (e.g. servers, specialized AI chips)	23%	18%	20%	25%	29%	23%	27%	31%	26%	29%
Automation solutions	26%	18%	19%	34%	23%	26%	24%	29%	28%	20%
Robotics	26%	13%	19%	26%	24%	21%	17%	32%	24%	19%
Blockchains and distributed ledgers	22%	15%	19%	27%	22%	25%	19%	26%	20%	22%
Quantum computing	20%	20%	18%	23%	20%	21%	23%	33%	21%	21%
Natural language processing, voice technologies, chatbots	24%	16%	18%	22%	22%	15%	23%	23%	16%	23%
Talent	21%	12%	21%	16%	21%	27%	16%	23%	17%	16%
Consulting services	21%	14%	19%	19%	19%	22%	17%	23%	19%	15%
Asset management solutions	25%	20%	15%	23%	18%	21%	16%	22%	21%	18%
Autonomous vehicles or drones	18%	17%	16%	16%	18%	18%	16%	12%	12%	17%
None of the above	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

APPENDIX: TECH INVESTMENTS

Tech investments motivated by profit – by market

Is your business investing in these technologies because you think they will make your company more profitable over the long term or due to demands by your customers? [% Selected “I think it will make my company more profitable in the long term” among those who selected each technology]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size – Range	573-1407	64-175	69-168	66-158	102-245	69-148	60-151	74-173	69-189
5G	78%	76%	74%	69%	82%	79%	81%	82%	79%
Cybersecurity solutions	77%	80%	70%	73%	76%	78%	81%	82%	78%
Internet of Things (IoT) solutions	79%	81%	77%	76%	81%	78%	82%	80%	76%
Artificial intelligence (machine learning) solutions	80%	83%	77%	79%	86%	71%	78%	80%	84%
Cloud computing (public/private/hybrid)	80%	81%	81%	79%	86%	81%	74%	80%	79%
Green IT solutions	73%	79%	76%	70%	77%	73%	65%	72%	69%
Supply chain solutions	76%	75%	79%	74%	77%	80%	78%	75%	72%
Augmented, virtual, extended reality (AR, VR, XR)	74%	76%	73%	72%	74%	72%	74%	75%	76%
Edge computing	77%	78%	77%	69%	79%	78%	77%	77%	77%
Hardware (e.g. servers, specialized AI chips)	74%	78%	77%	72%	72%	74%	73%	73%	78%
Automation solutions	76%	84%	82%	73%	75%	72%	79%	74%	67%
Robotics	77%	82%	79%	64%	78%	76%	77%	86%	73%
Blockchains and distributed ledgers	77%	85%	81%	71%	75%	76%	79%	71%	76%
Quantum computing	74%	74%	71%	70%	81%	75%	63%	74%	80%
Natural language processing, voice technologies, chatbots	73%	73%	74%	71%	75%	79%	69%	73%	70%
Talent	74%	66%	79%	77%	74%	70%	76%	74%	77%
Consulting services	72%	70%	69%	68%	77%	69%	67%	76%	75%
Asset management solutions	76%	78%	71%	82%	78%	79%	71%	74%	76%
Autonomous vehicles or drones	71%	77%	61%	67%	73%	70%	80%	74%	68%

APPENDIX: TECH INVESTMENTS

Tech investments motivated by profit – by industry

Is your business investing in these technologies because you think they will make your company more profitable over the long term or due to demands by your customers? [% Selected “I think it will make my company more profitable in the long term” among those who selected each technology]

	Financial Services	*Telecomm, Media, Entertainment	Retail	*Energy, Environment, Utility	Technology, Software, Information	*Construction	*Healthcare and Social Work	Professional Services	Manufacturing	*Transportation
Sample size - Range	48-103	14-35	94-246	26-72	141-293	31-63	23-74	27-122	84-248	20-63
5G	70%	60%	80%	74%	84%	69%	78%	76%	83%	78%
Cybersecurity solutions	72%	83%	76%	84%	79%	76%	72%	74%	76%	79%
Internet of Things (IoT) solutions	74%	89%	76%	76%	81%	68%	84%	81%	83%	78%
Artificial intelligence (machine learning) solutions	79%	90%	76%	84%	84%	80%	79%	84%	78%	74%
Cloud computing (public/private/hybrid)	82%	71%	77%	80%	86%	74%	78%	76%	79%	83%
Green IT solutions	68%	68%	69%	74%	79%	65%	66%	71%	77%	68%
Supply chain solutions	70%	60%	71%	81%	81%	62%	85%	69%	82%	76%
Augmented, virtual, extended reality (AR, VR, XR)	75%	69%	75%	81%	75%	70%	76%	68%	75%	71%
Edge computing	77%	60%	75%	81%	79%	71%	85%	70%	77%	84%
Hardware (e.g. servers, specialized AI chips)	75%	78%	71%	76%	79%	65%	50%	80%	77%	76%
Automation solutions	69%	56%	74%	80%	81%	78%	68%	72%	80%	62%
Robotics	67%	62%	74%	72%	80%	89%	83%	72%	86%	64%
Blockchains and distributed ledgers	77%	87%	75%	80%	79%	68%	93%	65%	78%	72%
Quantum computing	59%	70%	75%	71%	81%	69%	67%	75%	78%	64%
Natural language processing, voice technologies, chatbots	71%	75%	74%	73%	70%	77%	76%	69%	76%	74%
Talent	69%	92%	65%	74%	76%	81%	91%	77%	74%	62%
Consulting services	69%	50%	66%	62%	76%	85%	67%	65%	75%	75%
Asset management solutions	70%	65%	69%	79%	78%	83%	83%	72%	78%	88%
Autonomous vehicles or drones	69%	71%	71%	77%	74%	61%	74%	70%	65%	83%

APPENDIX: TECH INVESTMENTS

Tech investments motivated by customer demand – by market

Is your business investing in these technologies because you think they will make your company more profitable over the long term or due to demands by your customers? [% Selected “I think our customers want us to make this investment” among those who selected each technology]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size – Range	573-1407	64-175	69-168	66-158	102-245	69-148	60-151	74-173	69-189
5G	58%	61%	58%	62%	62%	57%	50%	60%	52%
Cybersecurity solutions	52%	47%	51%	52%	55%	52%	52%	52%	51%
Internet of Things (IoT) solutions	54%	50%	48%	50%	60%	52%	54%	53%	63%
Artificial intelligence (machine learning) solutions	53%	47%	54%	46%	52%	65%	50%	58%	52%
Cloud computing (public/private/hybrid)	46%	50%	44%	45%	47%	40%	45%	52%	47%
Green IT solutions	55%	54%	58%	54%	59%	49%	54%	52%	61%
Supply chain solutions	54%	53%	52%	57%	50%	49%	59%	54%	61%
Augmented, virtual, extended reality (AR, VR, XR)	57%	60%	57%	48%	62%	53%	61%	62%	48%
Edge computing	52%	51%	41%	57%	55%	52%	51%	55%	49%
Hardware (e.g. servers, specialized AI chips)	52%	51%	46%	54%	57%	51%	57%	50%	53%
Automation solutions	49%	39%	50%	35%	57%	58%	47%	50%	55%
Robotics	49%	44%	48%	57%	59%	48%	53%	34%	50%
Blockchains and distributed ledgers	49%	43%	46%	42%	48%	43%	50%	59%	56%
Quantum computing	51%	52%	54%	45%	49%	43%	66%	53%	50%
Natural language processing, voice technologies, chatbots	58%	59%	54%	57%	57%	52%	53%	64%	66%
Talent	52%	52%	48%	50%	53%	54%	51%	52%	57%
Consulting services	53%	58%	44%	49%	54%	46%	61%	53%	58%
Asset management solutions	48%	44%	40%	48%	59%	38%	59%	42%	51%
Autonomous vehicles or drones	53%	62%	43%	48%	58%	51%	57%	42%	58%

APPENDIX: TECH INVESTMENTS

Tech investments motivated by customer demand – by industry

Is your business investing in these technologies because you think they will make your company more profitable over the long term or due to demands by your customers? [% Selected “I think our customers want us to make this investment” among those who selected each technology]

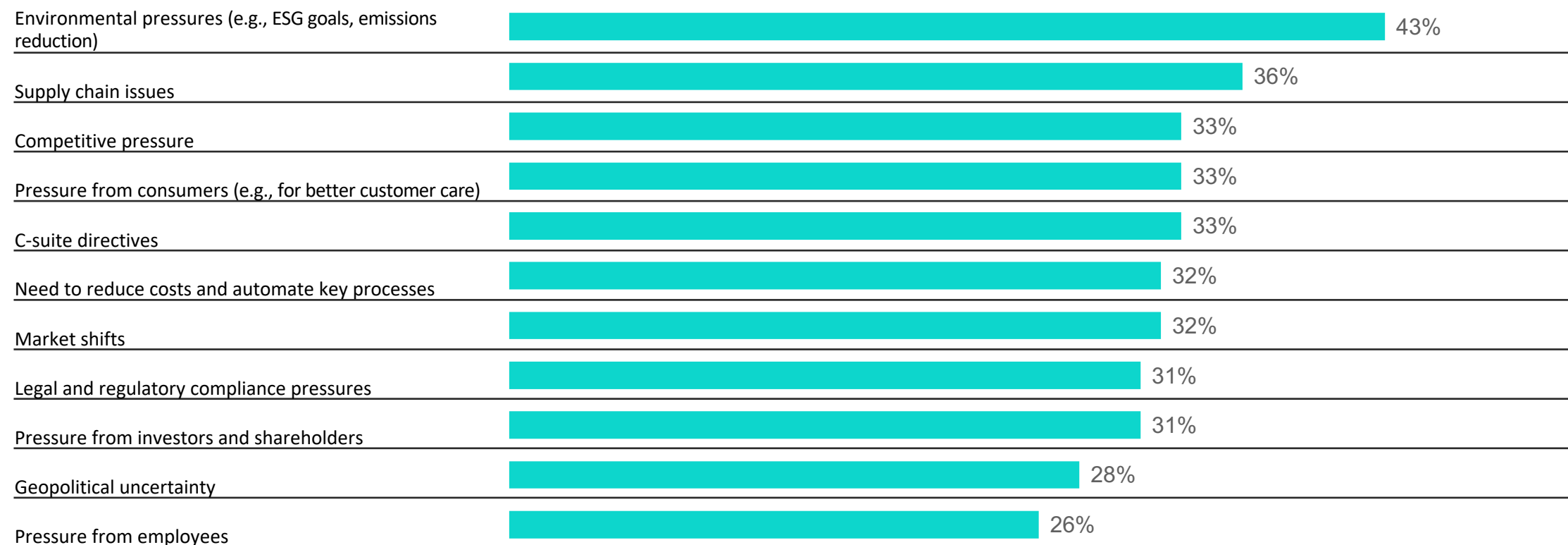
	Financial Services	*Telecomm, Media, Entertainment	Retail	*Energy, Environment, Utility	Technology, Software, Information	*Construction	*Healthcare and Social Work	Professional Services	Manufacturing	*Transportation
Sample size - Range	48-103	14-35	94-246	26-72	141-293	31-63	23-74	27-122	84-248	20-63
5G	59%	60%	59%	56%	60%	53%	58%	61%	55%	51%
Cybersecurity solutions	47%	50%	53%	41%	50%	56%	50%	59%	55%	44%
Internet of Things (IoT) solutions	55%	37%	59%	49%	55%	54%	44%	56%	51%	62%
Artificial intelligence (machine learning) solutions	42%	55%	58%	51%	54%	49%	51%	45%	55%	51%
Cloud computing (public/private/hybrid)	42%	50%	51%	35%	44%	45%	44%	51%	48%	55%
Green IT solutions	51%	60%	55%	70%	56%	61%	50%	58%	50%	56%
Supply chain solutions	53%	50%	61%	41%	52%	65%	46%	60%	53%	41%
Augmented, virtual, extended reality (AR, VR, XR)	52%	50%	58%	54%	64%	53%	66%	43%	56%	58%
Edge computing	52%	55%	55%	44%	59%	61%	41%	52%	46%	45%
Hardware (e.g. servers, specialized AI chips)	40%	44%	59%	50%	49%	60%	74%	46%	50%	55%
Automation solutions	46%	44%	46%	50%	51%	41%	50%	49%	53%	62%
Robotics	54%	54%	52%	51%	55%	36%	25%	46%	42%	56%
Blockchains and distributed ledgers	49%	33%	57%	33%	45%	59%	37%	58%	46%	48%
Quantum computing	61%	50%	52%	63%	52%	50%	55%	41%	53%	39%
Natural language processing, voice technologies, chatbots	45%	75%	65%	49%	59%	46%	61%	59%	60%	52%
Talent	45%	17%	61%	44%	54%	49%	52%	54%	51%	48%
Consulting services	47%	50%	64%	56%	49%	41%	58%	65%	49%	40%
Asset management solutions	34%	50%	59%	37%	54%	42%	39%	58%	43%	33%
Autonomous vehicles or drones	40%	35%	57%	50%	52%	61%	39%	52%	63%	43%

SUSTAINABILITY INVESTMENTS

Meeting ESG goals and overcoming supply chain issues are the top drivers of sustainability investments. Pressure from employees is the lowest of the measured drivers

What external factors, if any, are driving investments in sustainability at your organization? Please select all that apply. [% Selected]

Driving sustainability Investments



APPENDIX: SUSTAINABILITY INVESTMENTS

External factors driving sustainability investments – by market

What external factors, if any, are driving investments in sustainability at your organization? Please select all that apply. [% Selected]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size	3068	387	395	375	450	348	365	378	370
Environmental pressures (e.g., ESG goals, emissions reduction)	43%	43%	54%	38%	53%	44%	33%	37%	35%
Supply chain issues	36%	27%	35%	37%	41%	36%	36%	42%	36%
Competitive pressure	33%	25%	35%	27%	37%	33%	36%	35%	34%
Pressure from consumers (e.g., for better customer care)	33%	27%	38%	30%	43%	30%	30%	34%	30%
C-suite directives	33%	32%	30%	29%	44%	30%	32%	31%	33%
Need to reduce costs and automate key processes	32%	31%	39%	32%	36%	29%	28%	31%	31%
Market shifts	32%	37%	41%	29%	30%	32%	26%	30%	34%
Legal and regulatory compliance pressures	31%	32%	34%	27%	34%	28%	36%	29%	29%
Pressure from investors and shareholders	31%	28%	29%	31%	33%	29%	30%	31%	34%
Geopolitical uncertainty	28%	26%	19%	30%	33%	27%	26%	30%	35%
Pressure from employees	26%	21%	18%	29%	34%	23%	28%	25%	29%
None of the above	0%	2%	1%	0%	0%	0%	0%	0%	0%

APPENDIX: SUSTAINABILITY INVESTMENTS

External factors driving sustainability investments – by industry

What external factors, if any, are driving investments in sustainability at your organization? Please select all that apply. [% Selected]

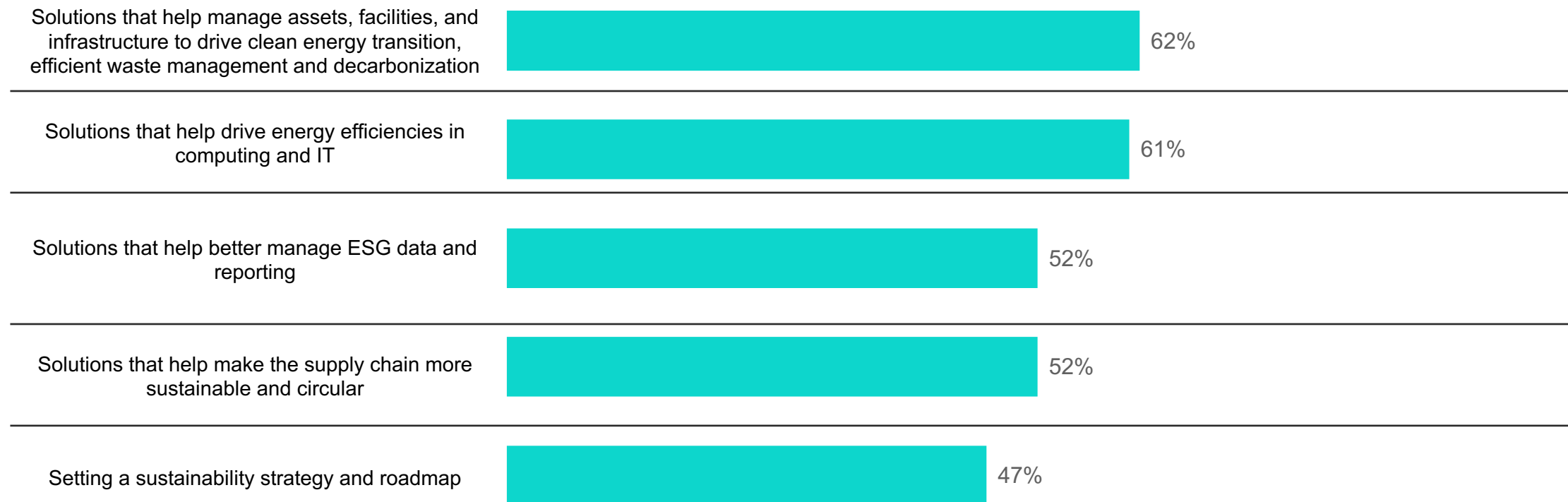
	Financial Services	*Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Social Work	Professional Services	Manufacturing	Transportation
Sample size	248	83	511	161	675	150	119	189	581	116
Environmental pressures (e.g., ESG goals, emissions reduction)	39%	34%	37%	50%	47%	41%	44%	51%	41%	41%
Supply chain issues	34%	35%	39%	41%	34%	24%	32%	50%	38%	40%
Competitive pressure	33%	31%	30%	33%	35%	34%	29%	42%	31%	35%
Pressure from consumers (e.g., for better customer care)	33%	34%	31%	40%	33%	23%	31%	39%	32%	36%
C-suite directives	37%	28%	32%	25%	35%	29%	38%	40%	32%	28%
Need to reduce costs and automate key processes	29%	24%	29%	32%	33%	35%	26%	42%	33%	39%
Market shifts	33%	25%	31%	34%	37%	31%	27%	29%	30%	33%
Legal and regulatory compliance pressures	29%	27%	32%	33%	30%	34%	29%	33%	33%	23%
Pressure from investors and shareholders	29%	33%	33%	36%	26%	30%	33%	37%	33%	28%
Geopolitical uncertainty	21%	37%	29%	24%	23%	35%	28%	43%	27%	34%
Pressure from employees	25%	22%	27%	27%	27%	23%	34%	32%	21%	30%
None of the above	1%	0%	1%	0%	0%	0%	1%	0%	0%	0%

SUSTAINABILITY INVESTMENTS

Investments in more sustainable operations and more energy efficient computing are the top sustainability investments planned for the next two years

How does your company plan to invest in achieving its sustainability goals and to making the company more resilient over the next two years? [% Selected]

Sustainability Investments



APPENDIX: SUSTAINABILITY INVESTMENTS

Specific sustainability investments – by market

How does your company plan to invest in achieving its sustainability goals and to making the company more resilient over the next two years? [% Selected]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample Size	3068	387	395	375	450	348	365	378	370
Solutions that help manage assets, facilities, and infrastructure to drive clean energy transition, efficient waste management and decarbonization	62%	61%	62%	58%	73%	62%	56%	57%	60%
Solutions that help drive energy efficiencies in computing and IT	61%	61%	62%	56%	68%	56%	58%	65%	59%
Solutions that help better manage ESG data and reporting	52%	50%	66%	45%	62%	47%	44%	52%	46%
Solutions that help make the supply chain more sustainable and circular	52%	48%	66%	53%	60%	45%	48%	48%	45%
Setting a sustainability strategy and roadmap	47%	48%	63%	37%	58%	41%	44%	42%	42%

APPENDIX: SUSTAINABILITY INVESTMENTS

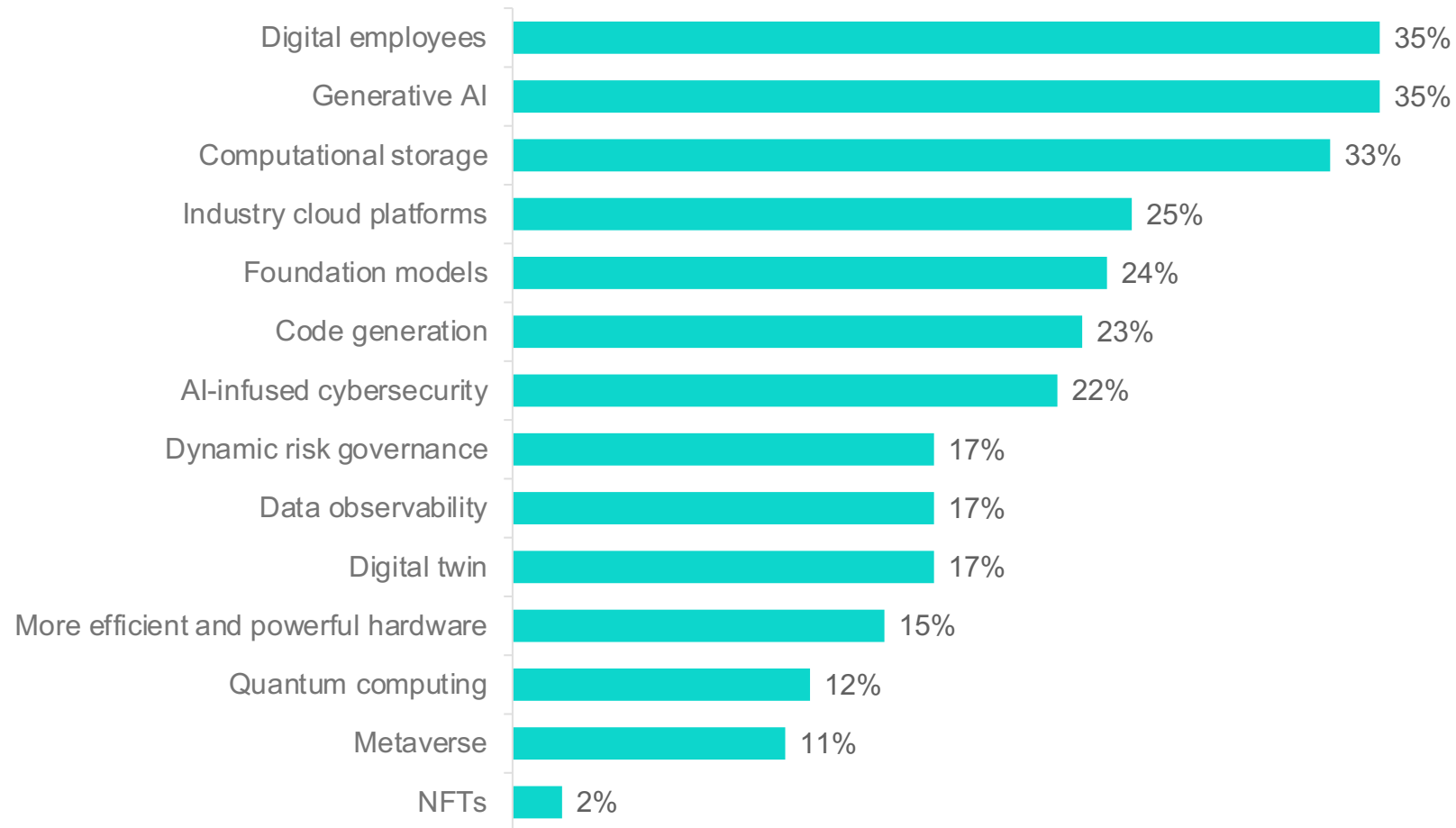
Specific sustainability investments – by industry

How does your company plan to invest in achieving its sustainability goals and to making the company more resilient over the next two years? [% Selected]

	Financial Services	*Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Professional Social Work	Services	Manufacturing	Transportation
Sample size	248	83	511	161	675	150	119	189	581	116
Solutions that help manage assets, facilities, and infrastructure to drive clean energy transition, efficient waste management and decarbonization	65%	41%	60%	65%	65%	62%	66%	63%	58%	64%
Solutions that help drive energy efficiencies in computing and IT	60%	57%	58%	69%	61%	61%	55%	68%	59%	60%
Solutions that help better manage ESG data and reporting	48%	48%	48%	56%	56%	52%	48%	59%	53%	43%
Solutions that help make the supply chain more sustainable and circular	49%	49%	52%	59%	54%	41%	51%	61%	54%	47%
Setting a sustainability strategy and roadmap	50%	43%	41%	45%	52%	36%	41%	51%	51%	40%

The top emerging technologies that are expected to change industries are AI based: Digital employees and Generative AI

What emerging technology do you think will change your business the most in the next 3-5 years? Please select up to 3 [% Selected]



APPENDIX: EMERGING TECHNOLOGIES

Emerging technology – by market

What emerging technology do you think will change your business the most in the next 3-5 years? [% Selected]

	Global Business Leaders	Brazil	China	Germany	India	Japan	UK	US	Canada
Sample size	4001	500	500	500	500	500	500	500	501
Digital employees	35%	29%	38%	40%	39%	31%	32%	38%	37%
Generative AI	35%	29%	39%	36%	39%	30%	34%	35%	38%
Computational storage	33%	29%	29%	40%	27%	30%	37%	36%	35%
Industry cloud platforms	25%	31%	22%	22%	30%	25%	20%	30%	21%
Foundation models	24%	21%	19%	29%	24%	29%	26%	21%	26%
Code generation	23%	23%	15%	25%	18%	24%	21%	24%	34%
AI-infused cybersecurity	22%	29%	27%	16%	21%	23%	21%	20%	17%
Dynamic risk governance	17%	16%	18%	15%	17%	17%	17%	17%	17%
Data observability	17%	18%	19%	15%	16%	17%	21%	17%	17%
Digital twin	17%	13%	21%	19%	14%	15%	15%	19%	20%
More efficient and powerful hardware	15%	17%	23%	14%	11%	14%	16%	14%	10%
Quantum computing	12%	13%	9%	9%	15%	11%	12%	12%	13%
Metaverse	11%	18%	11%	6%	21%	12%	11%	5%	6%
NFTs	2%	4%	2%	1%	4%	2%	2%	2%	2%
None of the above	0%	0%	0%	0%	0%	1%	0%	0%	0%

APPENDIX: EMERGING TECHNOLOGIES

Emerging technology by industry

What emerging technology do you think will change your business the most in the next 3-5 years? Please select up to 3

	Financial Services	Telecomm, Media, Entertainment	Retail	Energy, Environment, Utility	Technology, Software, Information	Construction	Healthcare and Social Work	Professional Services	Manufacturing	Transportation
Sample Size	307	121	714	191	840	198	154	246	765	151
Digital employees	39%	36%	35%	42%	35%	29%	32%	40%	33%	39%
Generative AI	32%	30%	38%	37%	34%	27%	31%	30%	41%	30%
Computational storage	27%	35%	38%	24%	29%	32%	40%	29%	38%	30%
Industry cloud platforms	21%	23%	19%	29%	34%	24%	27%	20%	24%	19%
Foundation models	21%	26%	25%	22%	26%	24%	21%	18%	23%	25%
Code generation	26%	26%	29%	23%	20%	23%	25%	21%	19%	25%
AI-infused cybersecurity	21%	20%	21%	20%	26%	25%	16%	26%	19%	22%
Dynamic risk governance	18%	21%	16%	15%	16%	20%	17%	18%	16%	16%
Data observability	18%	19%	15%	17%	13%	23%	21%	21%	21%	21%
Digital twin	21%	17%	18%	23%	13%	20%	14%	14%	17%	17%
More efficient and powerful hardware	17%	11%	15%	15%	15%	15%	14%	16%	15%	19%
Quantum computing	12%	16%	10%	13%	10%	11%	16%	17%	12%	15%
Metaverse	13%	12%	7%	10%	16%	14%	9%	20%	7%	13%
NFTs	3%	2%	2%	2%	4%	3%	2%	2%	1%	2%
None of the above	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%