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In This InfoBrief

With intelligence becoming the primary source of value creation, we are on the verge of the "Intelligence Revolution," in which artificial intelligence (AI) and automation-oriented technology will be the main accelerators of business change. In the realm of AI everywhere, generative AI (GenAI) emerges as a transformative force, potentially revolutionizing the future.

According to IDC's Worldwide Artificial Intelligence Systems Spending Guide (August 2023), which tracks Al software, hardware, and services across industries and use cases, enterprises worldwide are expected to invest \$166 billion on Al solutions in 2023. This spending is expected to grow to \$423 billion at a compound annual growth rate (CAGR) of 26.9% for 2022–2027. This is more than four times greater than the five-year CAGR of 5.7% for worldwide IT spending over the same period. Enterprises worldwide are expected to invest \$16 billion in generative Al solutions in 2023. GenAl spending is expected to exceed \$140 billion at a CAGR of 70%+ for 2023–2027. This is approximately three times greater than overall Al IT spending and almost 13 times greater than the CAGR for worldwide IT spending over the same period.

IDC conducted a global study of over 2,100 business leaders and decision makers from around the world who are responsible for bringing AI transformation to life within their organizations.

IDC also interviewed eight large enterprises about their Al strategy and use of Al within their businesses. This research provides unique insights into the business value of Al.

Source: IDC's FutureScape: Worldwide Generative Artificial Intelligence 2024 Predictions



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Key Findings

71% of respondents say their companies are already using Al.

92% of Al deployments are taking 12 months or less.

Organizations are realizing a return on their AI investments within 14 months.

For every \$1 a company invests in AI, it realizes an average return of \$3.50.

52% report that a lack of skilled workers is their biggest barrier to implementing and scaling Al.

Source: IDC's Business Value of Al Survey, September 2023



The Age of Al Is Upon Us

Al is everywhere across industries and business functions.



Life sciences
Accelerated drug discovery



Retail Supply chain management



Media and entertainment Digital avatar animation



Energy Smart grids | Demand resource management



Manufacturing
Digital twins | Simulations



Automated customer service agents



Hyper-personalized recommendations



Automated code generation



Copywriting and content analysis

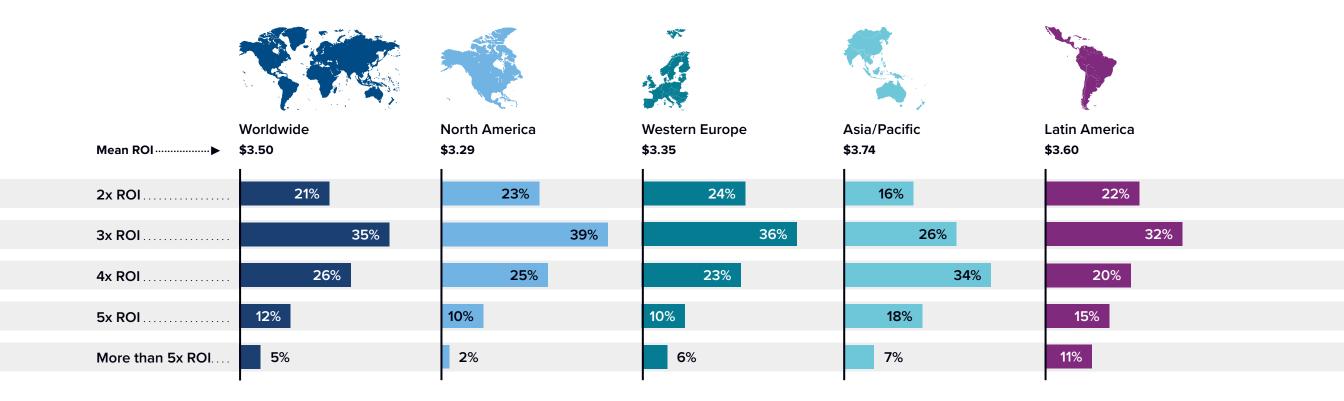


Investigative analysis and threat detection

Al Impacts Both the Top and Bottom Lines

On a worldwide basis, organizations are deriving significant value from their AI investments, with 5% of organizations realizing an average of \$8 return for every \$1 invested.

What would you estimate your organization's return on investment (ROI) is for every \$1 spent on AI projects or initiatives?

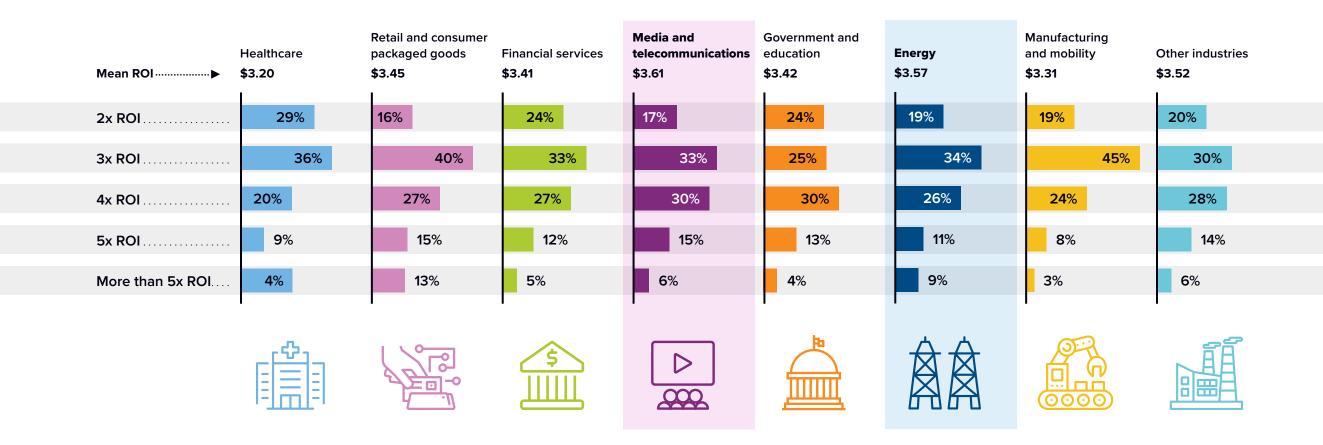


Note: Responses for "No return on investment" and "Not sure" were each under 1% and not displayed on the graph. n = 1,686 (worldwide), n = 513 (North America), n = 398 (Western Europe), n = 547 (Asia/Pacific), n = 228 (Latin America); Source: IDC's Business Value of Al Survey, September 2023 | For an accessible version of the data on this page, see Supplemental Data in the Appendix.



ROI of AI in Media and Telecommunications and Energy Exceeds Other Industries

What would you estimate your organization's return on investment (ROI) is for every \$1 spent on AI projects or initiatives?



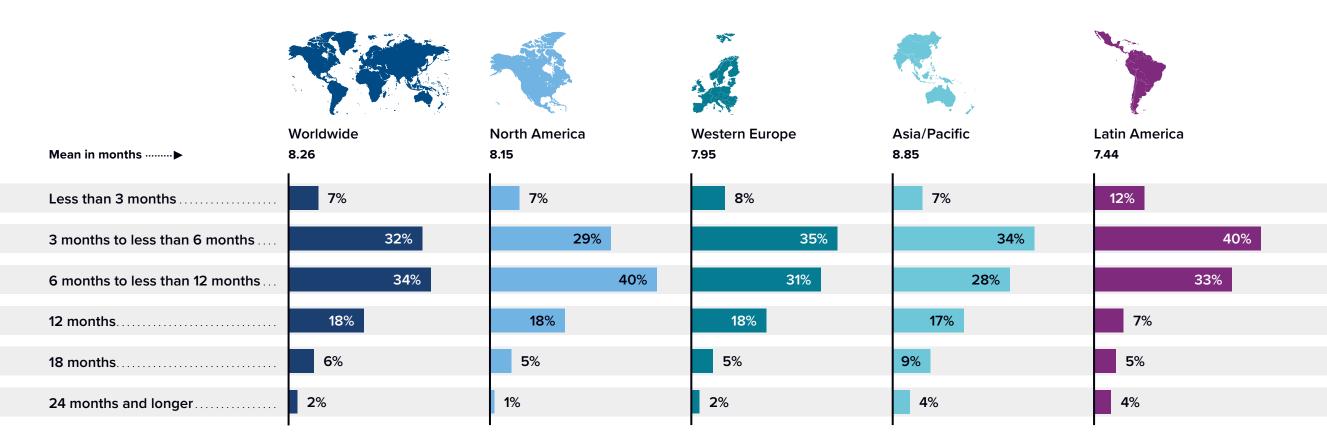
Note: Responses for "No return on investment" and "Not sure" are not displayed in the graph. n = 1,686 (all sectors), n = 187 (healthcare), n = 253 (retail and consumer packaged goods), n = 262 (financial service), n = 179 (media and telecommunications), n = 151 (government and education), n = 168 (energy), n = 157 (manufacturing and mobility), n = 318 (other industries); Source: IDC's *Business Value of Al Survey*, September 2023 | For an accessible version of the data on this page, see Supplemental Data in the Appendix.



Al Can Be Implemented Quickly

92% of AI deployments take 12 months or less. Average implementation time is eight months. 40% of organizations had implementation times of less than six months.

What is the typical timeline your organization has experienced in implementing AI solutions?



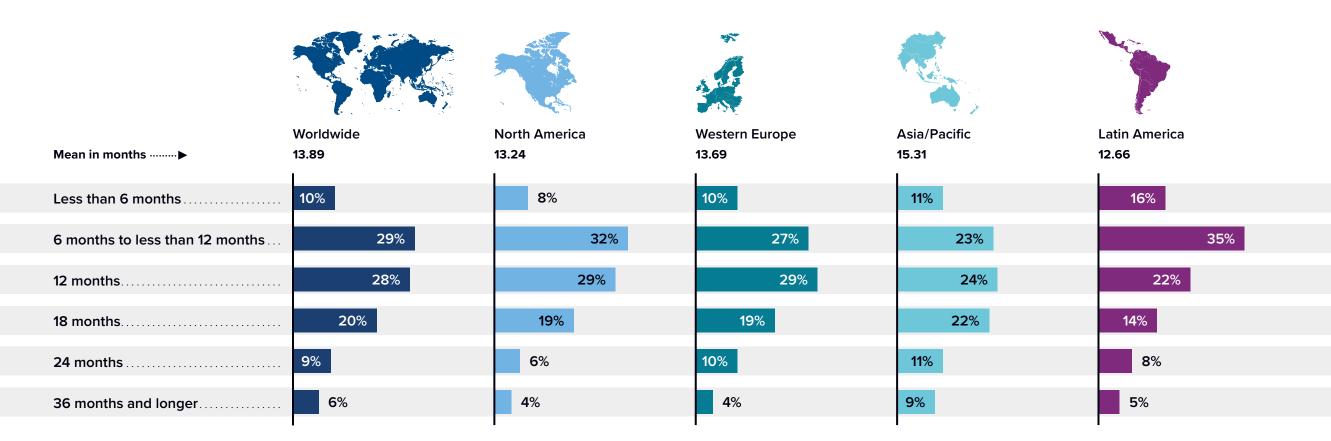
n = 1,686 (worldwide), n = 513 (North America), n = 598 (Western Europe), n = 547 (Asia/Pacific), n = 228 (Latin America); Source: IDC's Business Value of Al Survey, September 2023 | For an accessible version of the data on this page, see Supplemental Data in the Appendix.



Al Projects Can Also Deliver Value Quickly

Organizations are realizing a return on their AI investment within an average of 14 months of deployment.

What is the typical timeline your organization has experienced before seeing a return on investment (ROI) from AI projects or initiatives?



n = 1,682 (worldwide), n = 513 (North America), n = 395 (Western Europe), n = 546 (Asia/Pacific), n = 228 (Latin America); Source: IDC's Business Value of Al Survey, September 2023 | For an accessible version of the data on this page, see Supplemental Data in the Appendix.



What Organizations Are Saying About Business Outcomes



"Through the power of cloud and AI technologies, we are able to harness the potential of our vast array of data sources and extensive historical video archive. This has enabled us to create more personalized fan experiences tailored to the preferences of the fans, helping drive a 50% growth in NBA League Pass subscribers and tripling NBA App content video views from the previous season."

Melissa Brenner

NBA Executive Vice President, Digital Media



"When it comes to cost savings in our engineering department, we have seen a 10% to 30% boost in productivity with Al. At an enterprise scale, if you compound all that productivity across all the different engineers globally, that literally can quickly add up to \$100 million+ in savings. It also accelerates our time to market. The revenue lift is in the range of 3% to 15%."

U.S. ecommerce company



"Al has been a game-changer for Marks & Spencer, delivering exceptional value across our enterprise and personalization initiatives. We have seen a tenfold return on our enterprise investments, generating seven figures in savings and efficiencies. On the personalization side, we have unlocked eight figures in incremental revenue thanks to Al-powered recommendations and offers, which has exceeded our expectations on the impact Al can have on our business."

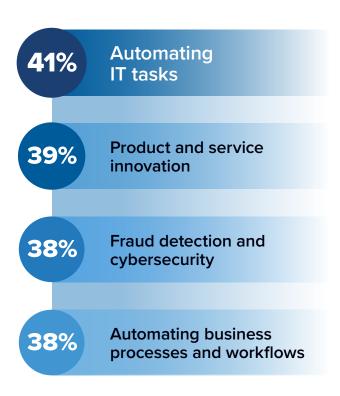
Russell Johnson

Chief Data Scientist, Marks & Spencer



Primary Al Use Cases

Al tasks and use cases organizations are currently monetizing:



Al tasks and use cases organizations are monetizing within 24 months:



Where are you investing in AI?

"Marketing is one of them. Sales is the second one. The third one is customer service. The fourth one is software development. The fifth one would be analytics, like product analytics, predictive analytics, so on and so forth."

U.S. ecommerce company

"Automotive design, development, manufacturing, and commercialization in the area for sales and marketing."

European automotive manufacturer

Source: IDC's *Business Value of Al Survey*, September 2023. **Left data graph**: Base = respondents indicated organization currently monetizing or using selected Al tasks/use cases to boost revenue. n = 1,187 (automating business process), n = 1,216 (fraud detection), n = 1,157 (product and service innovation), n = 1,363 (automating IT tasks). **Right data graph**: Base = respondents indicated organization planning to monetize or use selected Al tasks/use cases to boost revenue within 24 months. n = 1,187 (automating business process), n = 1,079 (copywriting), n = 1,133 (personalized customer engagement), n = 1,108 (running simulations)

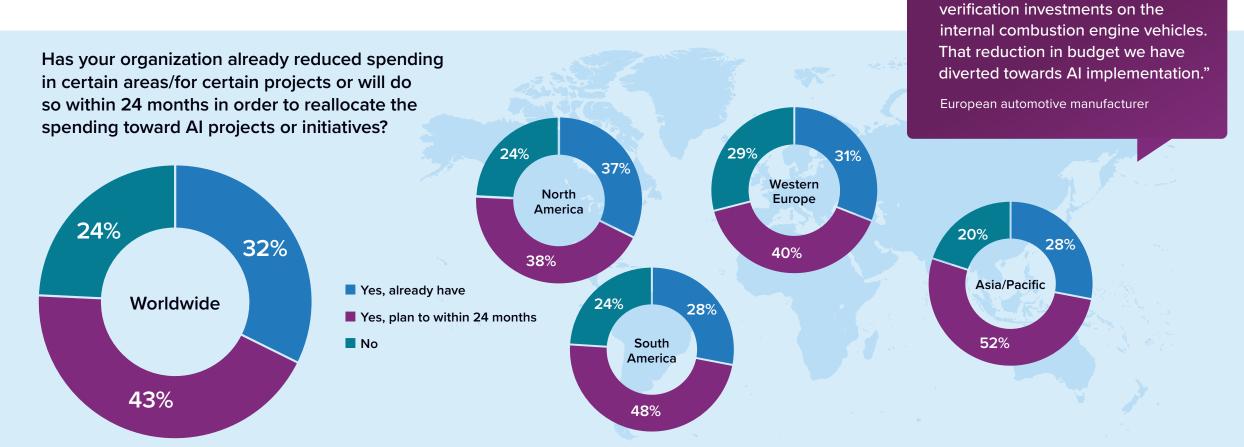
"We reduced the budget in R&D

investment and testing and

Organizations Are Prioritizing Al

43% of organizations plan to reduce spending in certain areas to reallocate spending towards AI within 24 months.

32% of organizations have reduced an average of 11% of spending on certain business areas to fund Al projects.



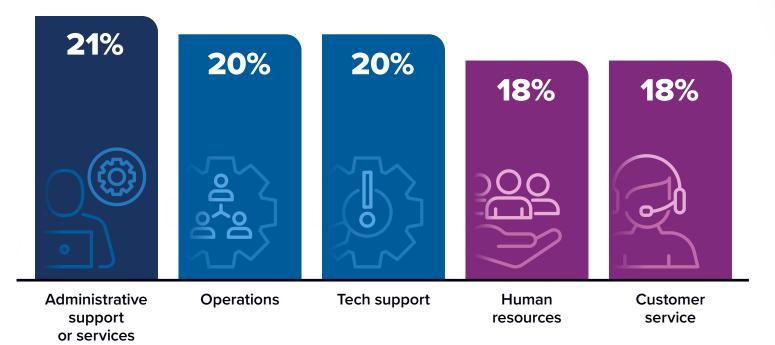
n = 2,109 (worldwide), n = 600 (North America), n = 501 (Western Europe), n = 708 (Asia/Pacific), n = 300 (Latin America); Source: IDC's Business Value of Al Survey, September 2023 | For an accessible version of the data on this page, see Supplemental Data in the Appendix.



Where Is Spending Being Reduced to Prioritize AI?

Funding for IT/tech infrastructure and cybersecurity are being redirected to prioritize AI.

Beyond IT/tech infrastructure and cybersecurity, funding is coming from:



"If the ROI of something new that we are investing in is better than what we had previously thought about, then it makes a strong business justification for us to go down this path."

U.S. ecommerce company

"We put a haircut to the rest of the organization to ensure we have enough [budget for Al projects]."

Asian telecommunications firm

n = 2,109; Source: IDC Business Value of Al Survey, September 2023



Al Leadership Offers Tangible Benefits

- An Al leader is one whose enterprisewide Al strategy is aligned to business goals and whose reimagined business models repeatedly create business value.
- Al leaders maximize organizational efficiency with an emphasis on data and skills readiness, Al governance, and optimized technology usage.
- On a worldwide level, 23% of the respondents have been classified as leaders.
- Leaders have rules, policies, and processes to enforce responsible Al principles.
- Leaders have better reduction in business risk, improvement in customer satisfaction, and higher revenue growth.
- The majority of leaders have already reduced spending in certain areas to reallocate spending toward Al projects or initiatives.
- Among leaders, security breaches and exposure of customer data are top concerns, and their responsible Al policies are intended to protect against these risks.



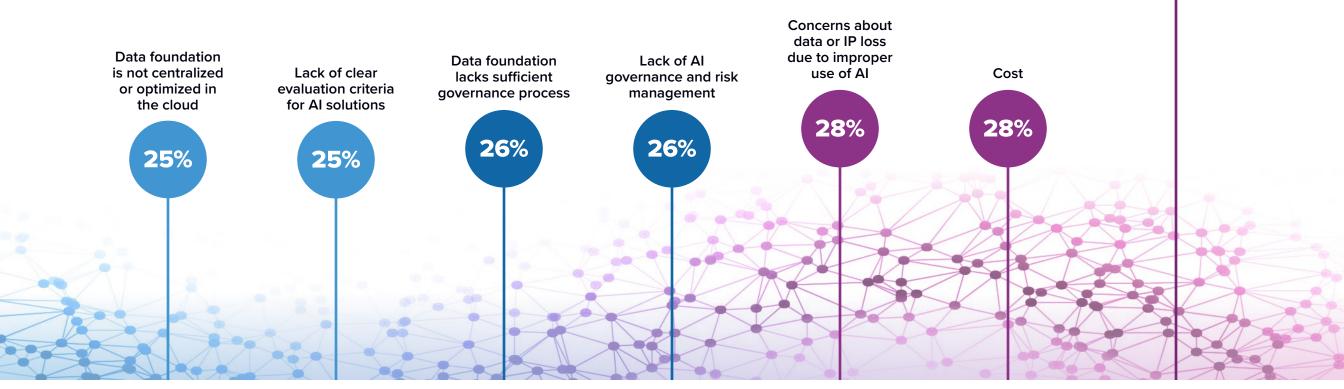
Lack of skilled workers

52%

What Holds Organizations Back?

Even with the excitement and hope for what AI can bring, it is not easy to implement and scale AI technologies.

What challenges have you experienced or expect to experience when implementing AI technology at your organization?



Note: Respondents could select all that apply; multiple dichotomous table; totals will not sum to 100%. n = 2,109; Source: IDC's Business Value of Al Survey, September 2023



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What Organizations Are Saying About Al Challenges

Organizations are identifying impediments to AI success and engaging in practices to overcome these challenges.



"The foremost is **regulation**. **Skills and data** are also key challenges."

U.S. bank



"The key challenges are talent and data.

We need to clean and provide data that
the models find useful."

U.S. ecommerce company



"The biggest challenge was getting hands on the right data from trusted sources.

The data ecosystem itself is one of our biggest challenges."

Asian telecommunications company

Personalized Skills

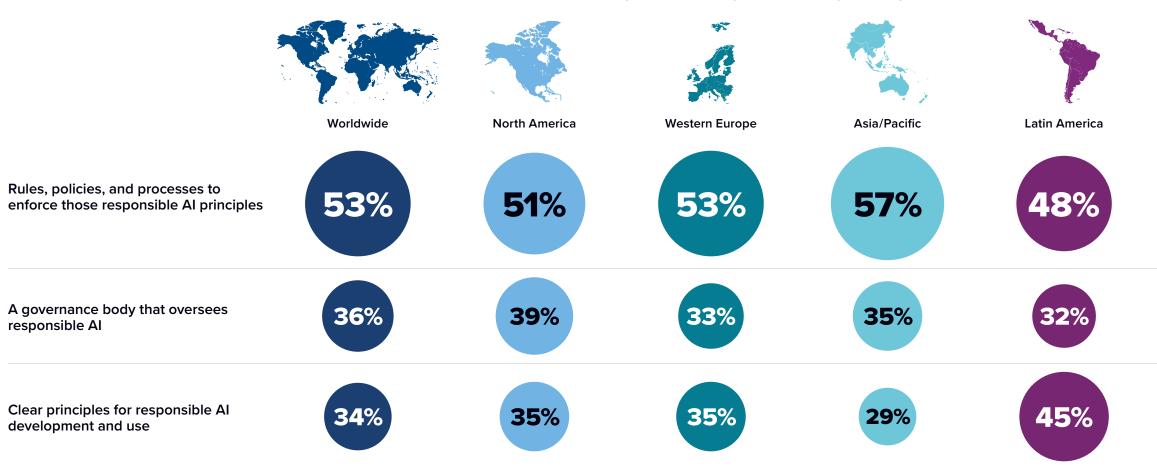
IDC predicts enterprises will leverage personalized technology skills development to drive \$1 trillion in productivity gains by 2026, enabled by GenAl and automation everywhere.

GenAl will be embedded in the tools that create employee training. Generative Al can create personalized content for IT and line-of-business professionals based on their current skills, knowledge gaps, and career goals. This tailored approach ensures that individuals receive the most relevant training, optimizing their upskilling and cross-skilling efforts as job roles evolve—including the need to program GenAl applications themselves.



Approaches to Responsible Al Vary Slightly Across Regions

Which of the following are currently in place at your organization?



n = 2,109 (worldwide), n = 600 (North America), n = 501 (Western Europe), n = 708 (Asia/Pacific), n = 300 (Latin America); Source: IDC's Business Value of Al Survey, September 2023 | For an accessible version of the data on this page, see Supplemental Data in the Appendix.



Security Breaches and Exposed Customer Data Are Top Concerns



n = 2,088; Source: IDC's Business Value of Al Survey, September 2023



How to Embrace AI to Increase Business Value



Clearly define business objectives, use cases, and measurement of value.

For each use case, assess build versus buy.

Partner with trusted technology solution suppliers and service providers.



Establish a clear operating model along with leadership support that empowers agile culture and experimentation.



Determine if your data application and data platform are Al-ready.

Reimagine the technology function and upgrade the enterprise technology architecture.



Establish processes, controls, and accountability structures around data privacy, security, and responsible use of Al.

Take steps to inhibit nefarious scenarios.



Engage in proactive change management to mitigate Al's impact on the workforce.

Invest in reskilling and upskilling and consider whether to hire or contract resources.



Conclusion

Artificial intelligence plays an increasingly important role in our lives and economy and is already having an impact on our world in many ways.

IDC is projecting that GenAl will add nearly \$10 trillion to global GDP over the next 10 years.

Citizens, educators, academics, technology suppliers, and governments need to continue to collaborate to help shape the development and responsible use of Al. Working together on a shared agenda for progress isn't just desirable. It's essential.

Source: IDC's Generative Artificial Intelligence: A New Chapter for Enterprise Business Applications, March 2023



Appendix: Supplemental Data

The tables in this appendix provide accessible versions of the data for the complex figures in this document. Click "Return to original figure" below the tables to get back to the original data figures.

SUPPLEMENTAL DATA FROM PAGE 6

What would you estimate your organization's return on investment (ROI) is for every \$1 spent on AI projects or initiatives?

	Mean ROI	2x ROI	3x ROI	4x ROI	5x ROI	More than 5x ROI
Worldwide	\$3.50	21%	35%	26%	12%	5%
North America	\$3.29	23%	39%	25%	10%	2%
Western Europe	\$3.35	24%	36%	23%	10%	6%
Asia/Pacific	\$3.74	16%	26%	34%	18%	7%
Latin America	\$3.60	22%	32%	20%	15%	11%

Note: Responses for "No return on investment" and "Not sure" were each under 1% and not displayed on the graph. n = 1,686 (worldwide), n = 513 (North America), n = 398 (Western Europe), n = 547 (Asia/Pacific), n = 228 (Latin America); Source: IDC's Business Value of Al Survey, September 2023 Return to original figure



SUPPLEMENTAL DATA FROM PAGE 7

What would you estimate your organization's return on investment (ROI) is for every \$1 spent on AI projects or initiatives?

	Mean ROI	2x ROI	3x ROI	4x ROI	5x ROI	More than 5x ROI
Healthcare	\$3.20	29%	36%	20%	9%	4%
Retail and consumer packaged goods	\$3.45	16%	40%	27%	15%	13%
Financial services	\$3.41	24%	33%	27%	12%	5%
Media and telecommunications	\$3.61	17%	33%	30%	15%	6%
Government and education	\$3.42	24%	25%	30%	13%	4%
Energy	\$3.57	19%	34%	26%	11%	9%
Manufacturing and mobility	\$3.31	19%	45%	24%	8%	3%
Other industries	\$3.52	20%	30%	28%	14%	6%

Note: Responses for "No return on investment" and "Not sure" are not displayed in the graph. n = 1,686 (all sectors), n = 187 (healthcare), n = 253 (retail and consumer packaged goods), n = 262 (financial service), n = 179 (media and telecommunications), n = 151 (government and education), n = 168 (energy), n = 157 (manufacturing and mobility), n = 318 (other industries); Source: IDC's *Business Value of Al Survey*, September 2023



SUPPLEMENTAL DATA FROM PAGE 8

What is the typical timeline your organization has experienced in implementing AI solutions?

	Worldwide	North America	Western Europe	Asia/Pacific	Latin America
Mean in months	8.26	8.15	7.95	8.85	7.44
Less than 3 months	7%	7%	8%	7%	12%
3 months to less than 6 months	32%	29%	35%	34%	40%
6 months to less than 12 months	34%	40%	31%	28%	33%
12 months	18%	18%	18%	17%	7%
18 months	6%	5%	5%	9%	5%
24 months	1%	1%	1%	2%	3%
Longer than 24 months	1%	1%	1%	2%	1%

n = 1,686 (worldwide), n = 513 (North America), n = 398 (Western Europe), n = 547 (Asia/Pacific), n = 228 (Latin America); Source: IDC's Business Value of Al Survey, September 2023



SUPPLEMENTAL DATA FROM PAGE 9

What is the typical timeline your organization has experienced before seeing a return on investment (ROI) from AI projects or initiatives?

	Worldwide	North America	Western Europe	Asia/Pacific	Latin America
Mean in months	13.89	13.24	13.69	15.31	12.66
Less than 6 months	10%	8%	10%	11%	16%
6 months to less than 12 months	29%	32%	27%	23%	35%
12 months	28%	29%	29%	24%	22%
18 months	20%	19%	19%	22%	14%
24 months	9%	6%	10%	11%	8%
36 months	4%	4%	3%	6%	2%
Longer than 36 months	1%	0%	1%	3%	3%

 $n=1,682 \ (worldwide), n=513 \ (North \ America), n=395 \ (Western \ Europe), n=546 \ (Asia/Pacific), n=228 \ (Latin \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); Source: IDC's \ \textit{Business Value of Al Survey}, September 2023 \ (North \ America); September 2023 \ (North \ America); September 2023 \ (North \ Ameri$



SUPPLEMENTAL DATA FROM PAGE 12

What is the typical timeline your organization has experienced before seeing a return on investment (ROI) from AI projects or initiatives?

	Worldwide	North America	Western Europe	Asia/Pacific	Latin America
Yes, already have	32%	37%	31%	28%	28%
Yes, plan to within 24 months	43%	38%	40%	52%	48%
No	24%	24%	29%	20%	24%

n = 2,109 (worldwide), n = 600 (North America), n = 501 (Western Europe), n = 708 (Asia/Pacific), n = 300 (Latin America); Source: IDC's Business Value of Al Survey, September 2023



SUPPLEMENTAL DATA FROM PAGE 18

What is the typical timeline your organization has experienced before seeing a return on investment (ROI) from AI projects or initiatives?

	Worldwide	North America	Western Europe	Asia/Pacific	Latin America
Rules, policies, and processes to enforce those responsible Al principles	53%	51%	53%	57%	48%
A governance body that oversees responsible Al	36%	39%	33%	35%	32%
Clear principles for responsible Al development and use	34%	35%	35%	29%	45%

 $n=2,109 \ (worldwide), \\ n=600 \ (North \ America), \\ n=501 \ (Western \ Europe), \\ n=708 \ (Asia/Pacific), \\ n=300 \ (Latin \ America); \\ Source: IDC's \ \textit{Business Value of Al Survey}, \\ Sourc$



About the IDC Analysts



Ritu JyotiGroup Vice President,
Worldwide Artificial Intelligence and Automation
Research Practice, Global Al Research Lead, IDC

Ritu Jyoti is Group Vice President, covering worldwide artificial intelligence and automation research with IDC's Software Market Research and Advisory practice. Ritu is responsible for leading the development of IDC's thought leadership for Al research and managing the research team. Her research focuses on the state of enterprise Al efforts and global market trends for rapidly evolving Al and machine learning innovations and ecosystem. She also leads insightful research that addresses the needs of Al technology vendors and provides actionable guidance on how to crisply articulate their value proposition, differentiate, and thrive in the digital era.

More about Ritu Jyoti



David Schubmehl
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Dave Schubmehl is Research Vice President for IDC's Conversational Artificial Intelligence (AI) and Intelligent Knowledge Discovery research. His research covers information access and artificial intelligence technologies around conversational AI technologies including speech AI and text AI, machine translation, embedded knowledge graph creation, intelligent knowledge discovery, information retrieval, unstructured information representation, knowledge representation, deep learning, machine learning, unified access to structured and unstructured information, chatbots and digital assistants, and rich media search in SaaS, cloud, and installed software environments. This research analyzes the trends and dynamics of the Text and Audio AI software markets and the costs, benefits, and workflow impact of solutions that use these technologies.

More about David Schubmehl

Message from the Sponsor



To learn more about how customers across industries are shaping their AI transformation with Microsoft, please visit the Microsoft Cloud blog which shares real-world examples of business impact being driven by AI, as well as resources and skilling opportunities you can use to build your readiness to lead the era of AI.

Learn more about the power of the Microsoft Cloud and AI technologies



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