

# 11 Insights for Getting — and Staying — Ahead in the Digital Economy

Our recent study shows companies are already separating from the pack based on how they deploy advanced technologies and business models. Using research-based insights, decision makers can move fast with strategies and tactics that will yield the best results. Here's an overview of our findings; for the full report, please see "The End of the Beginning" at [cognizant.com/digital-transformation-report](https://cognizant.com/digital-transformation-report).

**As we move beyond the early days of the digital economy, crucial questions arise about how to keep moving forward. This study aims to answer them.**

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# The end of the beginning



We're 20% of the way through the 21<sup>st</sup> century. If your company is still around, congratulations, because many aren't.

As we move beyond the early days of the digital economy, however, crucial questions arise about how to keep moving forward: what's working, what's not, where investments are paying off, optimal next steps, what separates leaders from followers.

To find the answers, we surveyed 2,491 business and technology leaders from multiple industries globally that collectively account for about \$21.6 trillion in annual revenue. We also interviewed senior executives who are knowledgeable about advanced technology initiatives within their companies.

Using our findings, we distinguished leaders from laggards to better understand what organizations look like at any point on the digital maturity curve and what it takes to make progress on that journey. Our research reveals how much businesses should be investing in advanced technologies as a percent of revenue today and in the near future, the investments that are yielding the greatest returns, the next best areas to focus on, the returns they can expect at various points of the maturity curve and more.

We invite you to read our ebook or visit us at [cognizant.com/digital-transformation-report](https://cognizant.com/digital-transformation-report) to read the full report.

# Finding Your Place on the Maturity Curve

A man and a woman in business attire are looking at a tablet together. The man is pointing at the screen while the woman smiles. The background is dark with colorful bokeh lights.

# Where to go next depends on where you are now

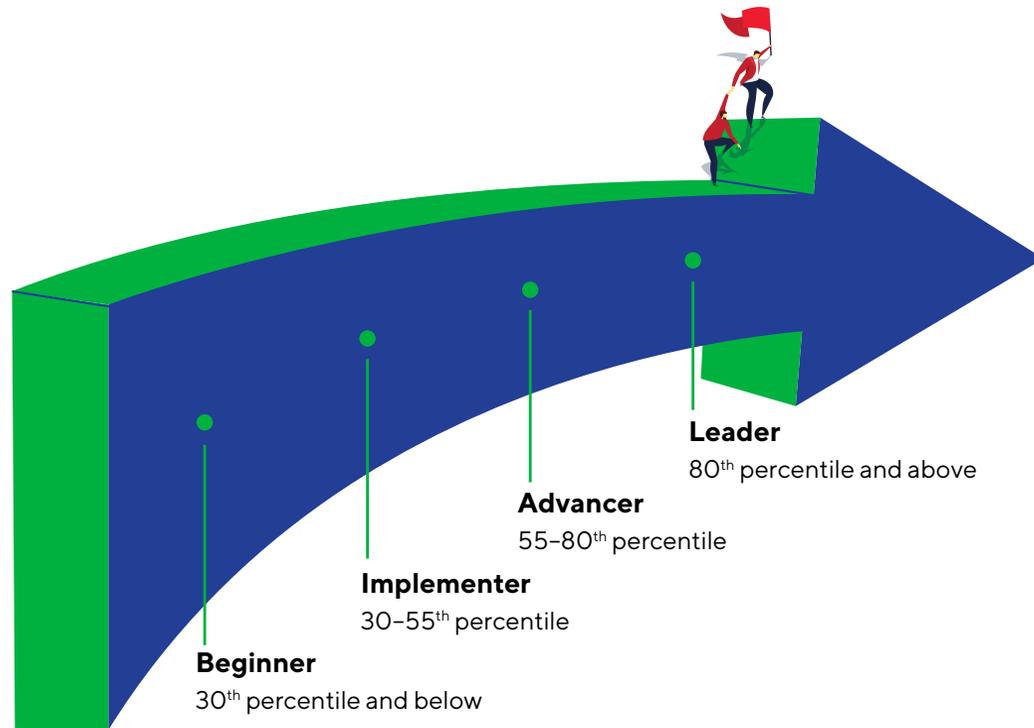


Figure 1

Unsurprisingly, some companies are doing much better with adapting to modern-economy realities than others. To better understand what a leader looks like, we devised a framework to calculate a maturity score. The score is based on three criteria:

- I Ranking on a digital transformation framework:** We scored companies across 13 key aspects of business and technology change (see page 7 for the full list).
- I Ability to influence revenue through digital methods.** Drawing on self-reported data, we analyzed the level of revenue influenced directly or indirectly by digital channels.
- I Benefits generated from digital.** This included operational benefits, such as speed to market and improving cost efficiencies, and more strategic ones, such as greater shareholder value and market share.

We created a maturity score for each respondent and assigned each to one of four categories: “beginner,” “implementer,” “advancer” and “leader.” We then distilled our findings into easily digestible lessons that business and technology leaders can absorb and apply immediately.

# Illuminating the Path Ahead: 11 Key Insights

A blurred photograph of people walking through a modern, brightly lit tunnel or hallway. The walls and ceiling are illuminated with a warm, golden light, creating a sense of depth and movement. The people are in motion, their figures slightly out of focus, suggesting a fast-paced environment. The overall atmosphere is one of forward momentum and progress.

# 1 We're through the first inning of the Fourth Industrial Revolution

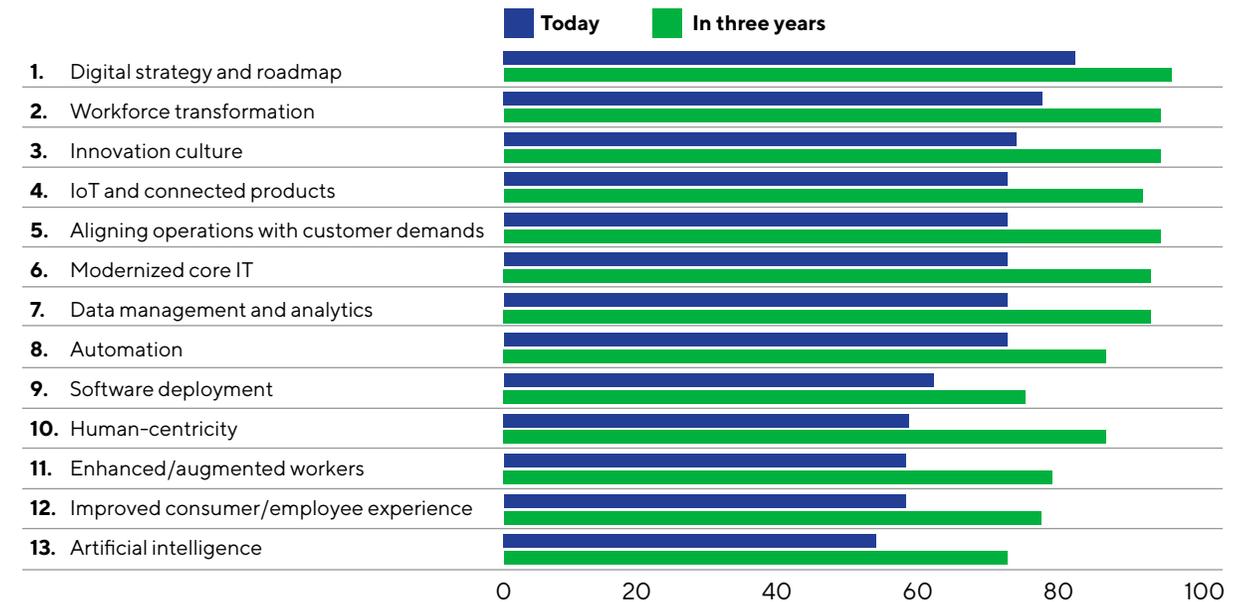
With more than half of all respondents at an intermediate or even advanced state in nearly every area of our framework, we're well into what the World Economic Forum calls the Fourth Industrial Revolution.<sup>1</sup>

But experienced executives have outsized expectations to move even faster, more aggressively, over the next 36 months. So amid the groundswell of progress, there's a clear warning: If you're not moving fast already, you're falling farther behind.



## Key components of the modern enterprise

Percent of respondents in the implementation, maturing or advanced stage of each area of the digital maturity framework.



Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 2

# 2 Four guidelines to assess your digital maturity

Although each industry and company is different, and regional differences abound, our study offers guidelines for self-diagnosis:

## 1. Investment

Are you investing 9.8% of revenue into new technology and business models? Are you ready to increase that to 15.7% in three years? That's the average investment level across respondents.

## 2. Direct and indirect revenue from technology

Is digital influencing 21.3% of your revenues (i.e., marketing, digitally-enabled products and services)? Is 14.3% of revenue coming through digital channels? These are the cross-industry averages in our study.

### Return on revenue from tech investments

	Direct Revenue	Total Influenced Revenue
<b>All respondents</b>	<b>14.3%</b>	<b>21.3%</b>
Leader	22.0%	30.5%
Advancer	15.8%	25.3%
Implementer	11.9%	19.2%
Beginner	9.7%	13.6%

Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 3

### 3. Margin improvement

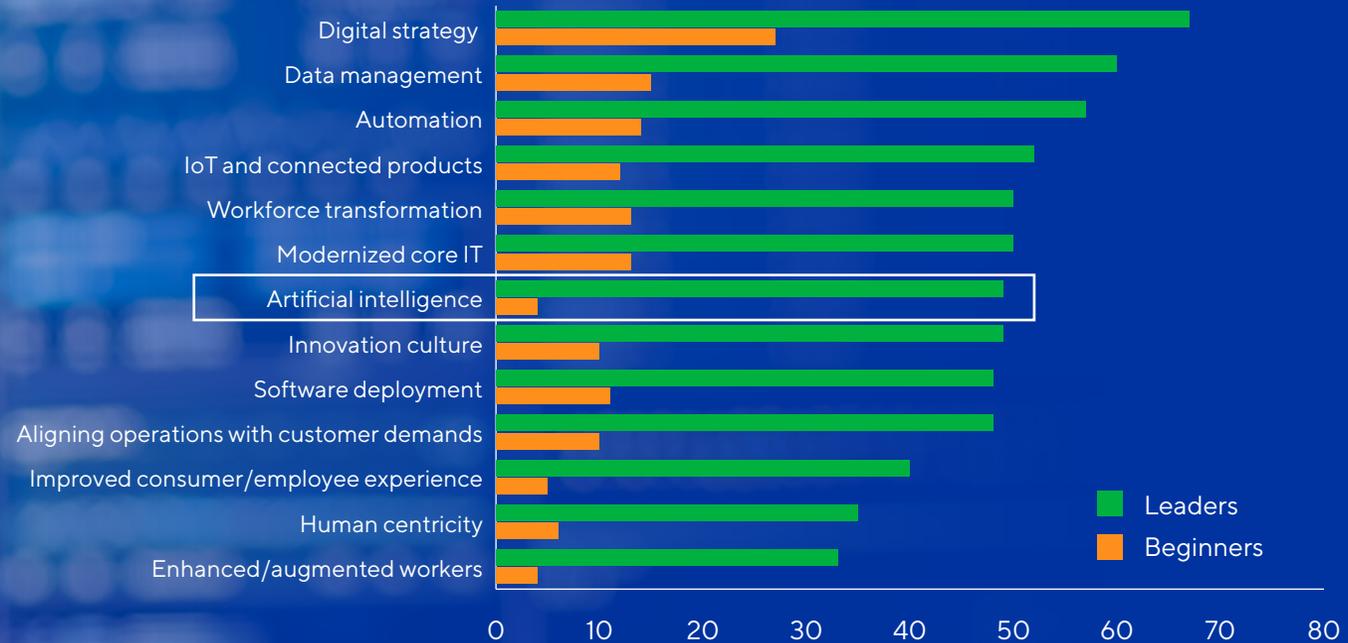
Have your modern-economy initiatives helped cut costs by at least 2.3% over the past year? If not, it's below the average of all companies that we studied.

### 4. Areas of maturity

Are you at an advanced stage with digital strategy, data management, process automation and Internet of Things (IoT)? That's where leaders excel. The biggest gap between leaders and beginners is in AI.

#### Top areas of maturity

Percent of respondents who said they were advanced or maturing in the following areas.



Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 4

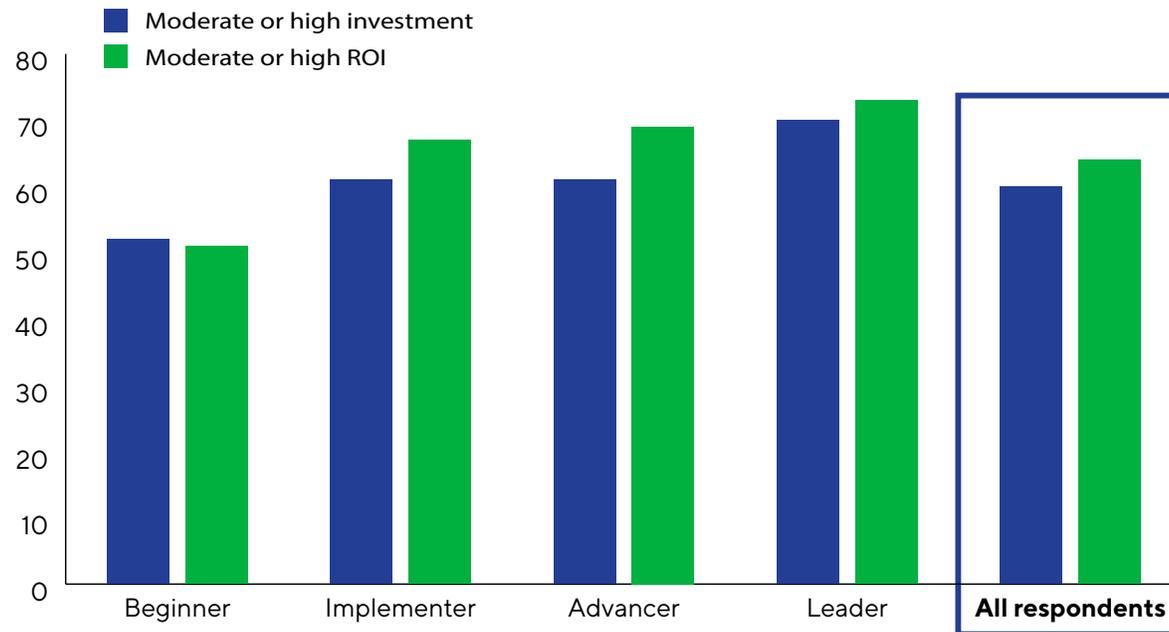
# 3 Modernizing data is a no-regret step

The same percent of respondents whose organizations have made moderate or substantial investments in data management (60%) have realized moderate to high returns. Quite simply, data – and associated analytics – leads to both revenue growth and cost savings.

Data is a hidden advantage that legacy companies have against digital-native competitors. Finding, mining, managing and using that data – in an ethical and transparent way – is paramount to success.

## Data management investments yield high returns

Leaders realize higher ROI from data management.



Response base: 2,491 business and technology leaders

Source: Cognizant

Figure 5



The same percent of respondents whose organizations have made moderate or substantial investments in data management (60%) have realized moderate to high returns.

# 4 If you're investing <10% of revenue on advanced technologies, best of luck!

## Tech investment is growing across industries

Respondents are investing almost 10% of revenue on advanced technologies, on average, with plans to boost that to almost 16%.

	Utilities	Industrial	Consumer goods	Financial services	Retail	Healthcare payer	Life sciences	Healthcare provider	Telecom	Media	Insurance	Technology	Average across industries
Today	7%	8%	10%	10%	9%	11%	11%	10%	10%	11%	11%	11%	10%
In three years	12%	14%	16%	16%	15%	17%	17%	17%	16%	17%	17%	15%	16%
Growth	88%	73%	62%	62%	61%	59%	58%	55%	55%	55%	52%	35%	60%

Respondents across industries reported a surprisingly consistent level of technology spending, at an average of 10% of revenue, and plan to increase that to almost 16% over the next three years.

Considering the total revenue of all respondents is around \$21.6 trillion, this equates to about \$2.16 trillion in current annual technology investment, and around \$3.45 trillion in three years. The average company in our study would be spending roughly \$837 million on technology this year and raising it to \$1.3 billion in three years.

Response base: 2,491 business and technology leaders  
 Source: Cognizant  
 Figure 6

# 5 Keep building the foundation

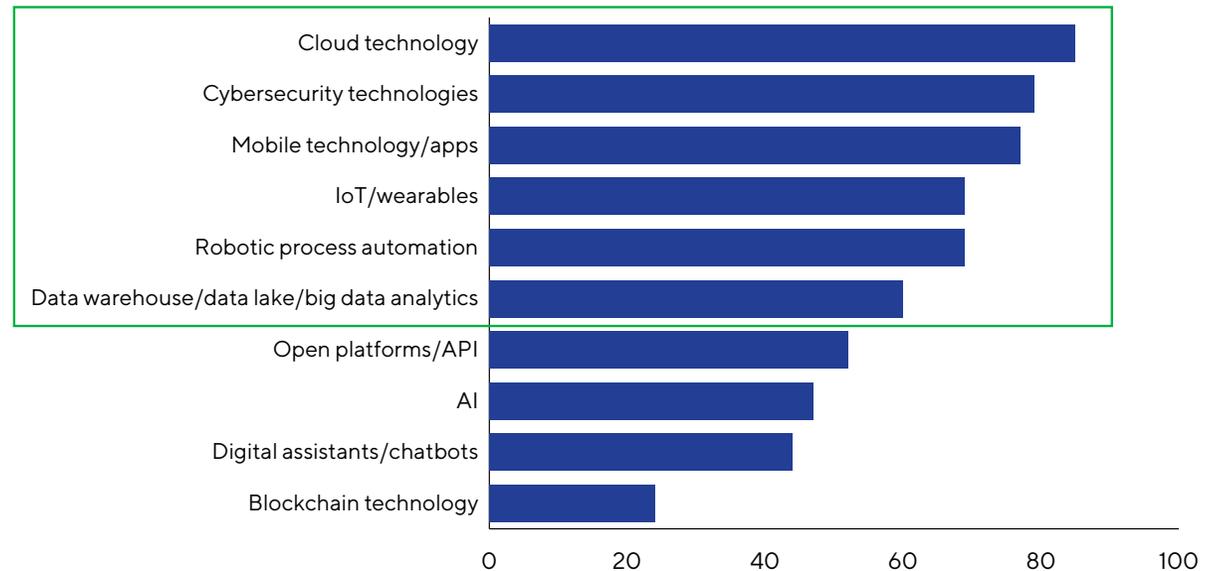
More than 77% of respondents have made significant investments – and reaped moderate or high returns – in three essential areas:

- The cloud (the true engine of the digital economy).
- Mobile (everyone is on the move).
- Cybersecurity (the new endless war).

*Future* growth (and savings) will come from continued investment in the cloud but also deployment of new technologies, particularly IoT, process automation and data management. Keep in mind that when it comes to where leaders plan to invest over the next three years, the biggest gaps between their plans and beginners' is in data management, AI, cybersecurity and strategy setting.

## Technology investment highs and low

Percent of respondents who've made a significant investment in each area in the past two years.



Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 7

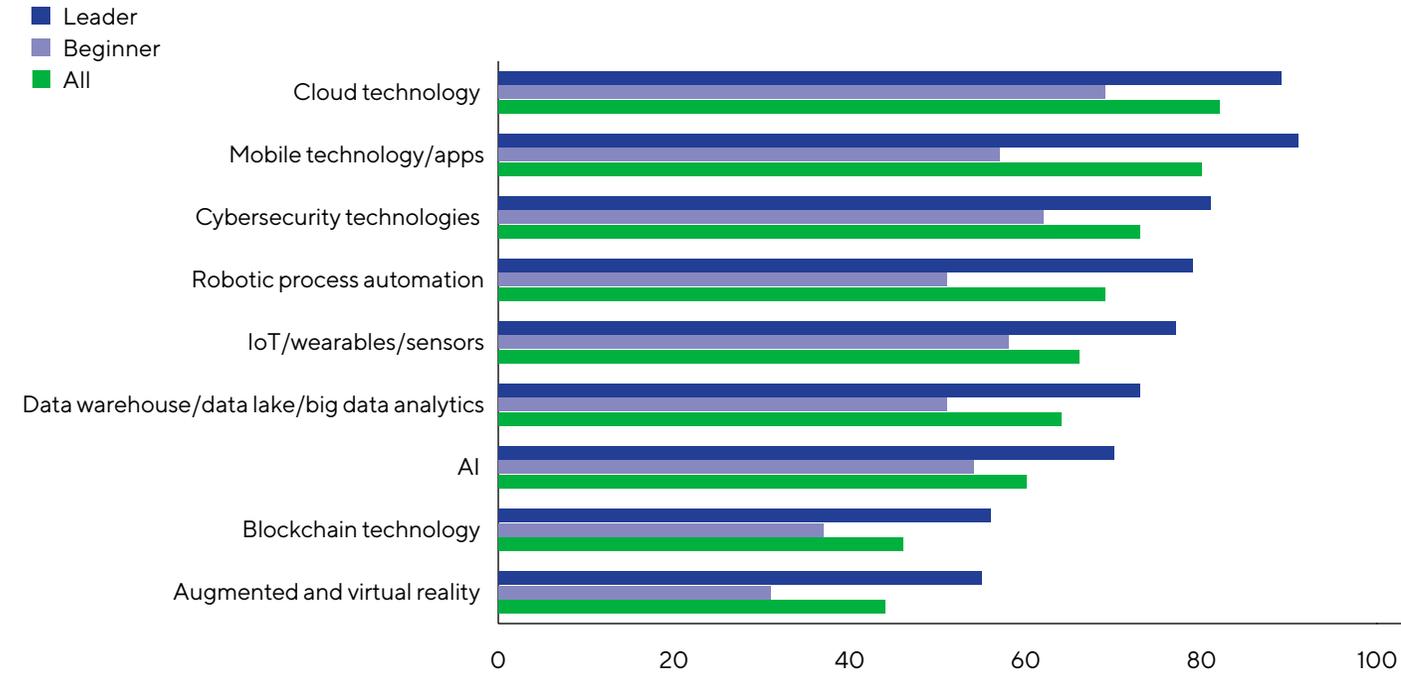
When it comes to where leaders plan to invest over the next three years, the biggest gaps between their plans and beginners' is in **data management, AI, cybersecurity** and **strategy setting**.



# 6 Tech bets with the highest payoff

## Calculating technology's returns

Percent of respondents who said they are getting "moderate" or "high" returns on these investments.



Response base: 2,491 business and technology leaders

Source: Cognizant

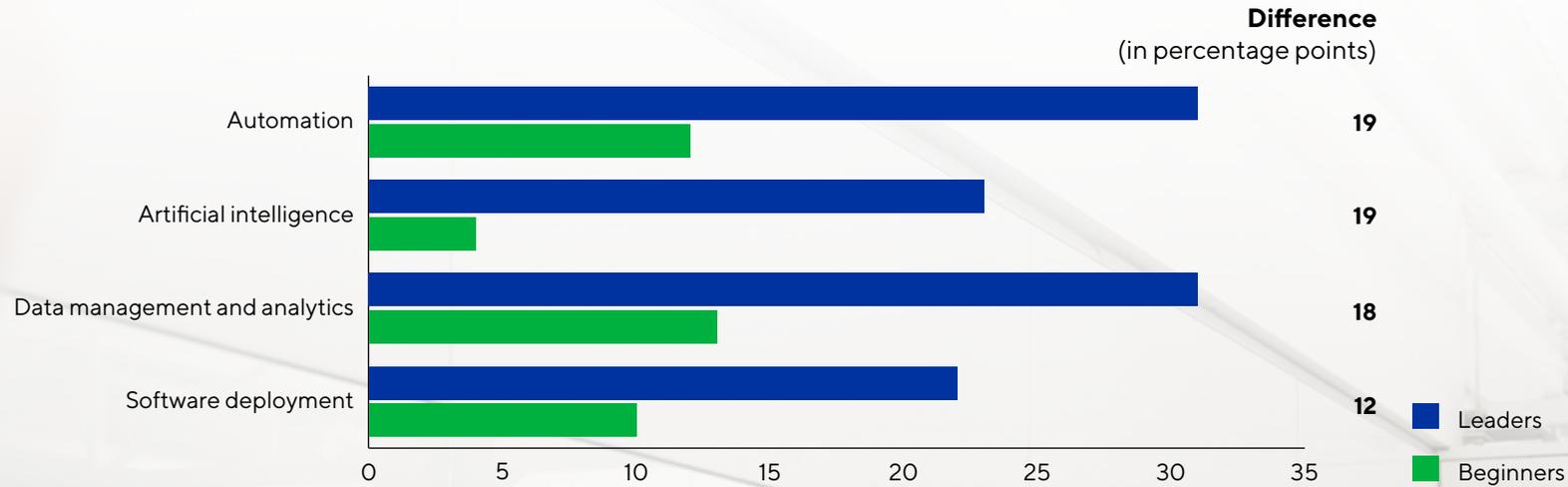
Figure 8

More than 70% of companies on average are already realizing moderate or high ROI (including cost savings, growth, valuation, etc.) on the low-risk bets of cloud, mobile technology and cybersecurity.



## Separating leaders from laggards

Percent of respondents realizing high positive impact specifically on revenue.



Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 9

When asked which aspects of digital are having the largest positive impact specifically on revenue over the last year, the difference between leaders and laggards is particularly vast in automation, AI, data management and software deployment.

# 7 Find your customized starting line

Businesses will realize different returns on any given investment depending on their digital maturity level. Here's what our findings reveal:

- I Think strategy at the start!** The most impactful time to invest in a modern-economy strategy is in the early stages. Strategy remains important as companies fine-tune their approach to meet changing objectives and market conditions.
- I Build your innovation muscle from the get-go.** Building a culture of innovation is also an early-stage winner and continues to boost performance across all stages of digital endeavors.
- I Proficient data management amps performance for more mature companies.** Managing data better – and therefore being able to derive insights, apply intelligence, drive growth and more – provides fuel for later-stage initiatives.

## Where you are defines where to start

Areas of investment where respondents are realizing highest ROI.

	Beginner	Implementer	Advancer	Leader
1	Digital strategy	Digital strategy	Automation	Automation
2	Innovation culture	Automation	Digital strategy	Data management
3	Align with demands	Innovation culture	Data management	Transform workforce
4	UX	Transform workforce	Transform workforce	Digital strategy
5	Modernized IT	UX	Human centrality	AI

Response base: 2,491 business and technology leaders  
 Source: Cognizant  
 Figure 10

# 8 The devil – and value – is in your back office

## Technology is reshaping work in every industry

Top three processes where respondents see impact today and expect a bigger impact in the next three years.

Industry	Impact from digital tech today	Expected impact in three years
<b>Financial services</b>	Payment processing and services (67%) Consumer lending, loan servicing, loan processing (60%) Customer enrollment and onboarding (59%)	Payment processing and services (88%) Client services and advisory (84%) Consumer lending, loan servicing, loan processing (83%) Customer enrollment and onboarding (83%)
<b>Healthcare (payers and providers)</b>	Customer enrollment and onboarding (64%) Integrated care management (56%) Revenue cycle management (52%)	Customer enrollment and onboarding (84%) Integrated care management (76%) Value-based care management (75%)

For the results of all industries included in the study, please see [our full report](#).

Response base: 2,491 business and technology leaders

Source: Cognizant

Figure 11

Our findings indicate that the best play for real-world near-term value comes from focusing on core business process improvements. To reap the highest impact, organizations should:

- I Focus on processes that directly touch customers.** These are the business processes showing the highest payoff now and in three years.
- I Stay the course in the middle and back offices.** Across industries, we saw a surprising level of consistency as to which processes were most worthy of a digital injection: most respondents don't see a big change in focus between the highest-impact processes today and the next three years.

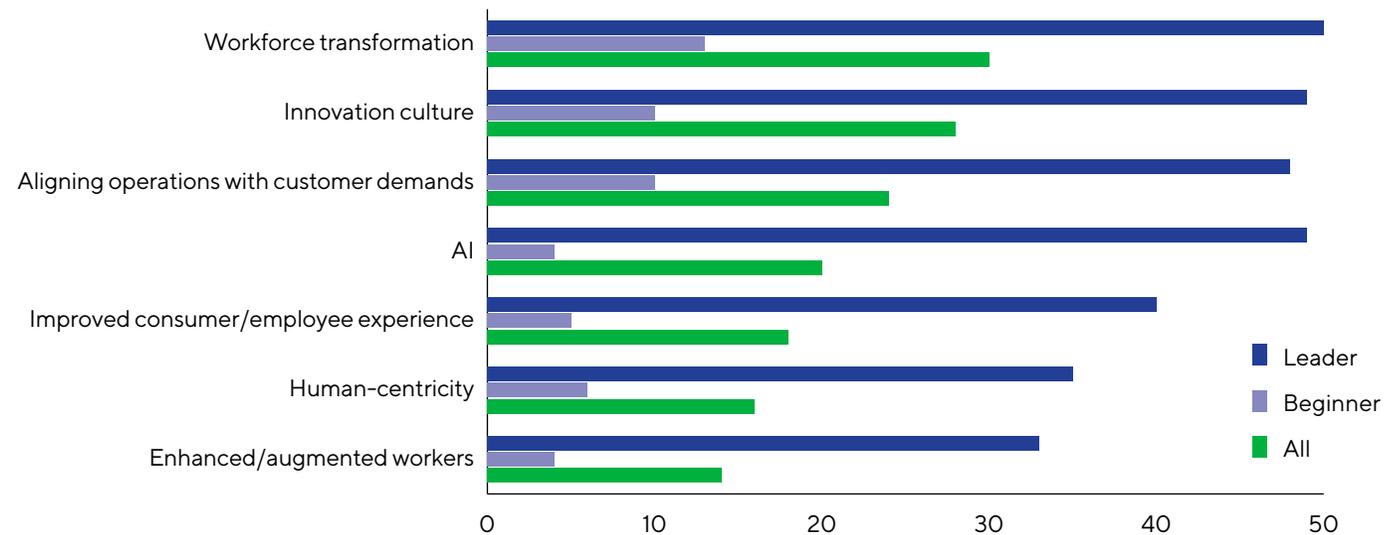
# 9 Humans are still at the center of the digital economy

When we looked at advancers and leaders in our study, 48% said a top lesson-learned was to start their initiatives with human insight. In fact, the ability to align new technologies with human requirements – workforce transformation, improving consumer and employee experiences, etc. – is a key defining point between leaders and laggards.



## Putting people ahead of technology

Percent of respondents who are “advanced” or “maturing” in each area.

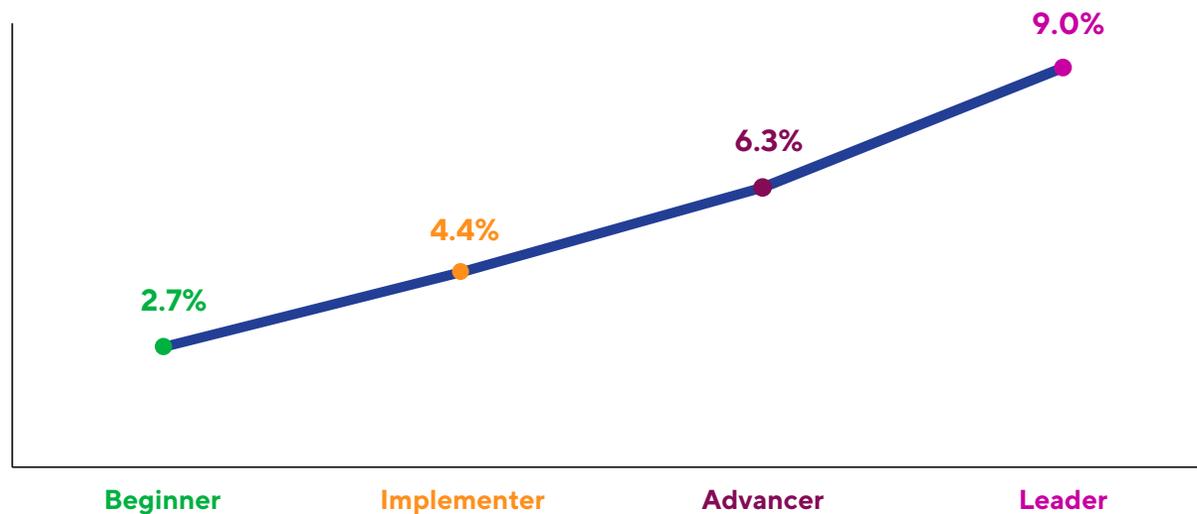


Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 12

# 10 Managing your 0s and 1s leads to more \$s and £s and €s

## The digital force multiplier

As beginners become leaders, net benefits (revenue minus cost) grow to 9% of revenue, unlocking total value of \$770 million for the average company in our study with revenues of \$8.5 billion.



Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 13

It's clear that "being digital" pays off. As companies move further along the maturity curve, the net economic impact accumulates – like the compounding effect of interest on an investment.

Specifically, beginners realize a net impact (revenue minus cost) of 2.7% of overall revenue. The net impact continues to increase as maturity increases. The trip from start to finish generates a net benefit equal to 9.0% of revenue.

Here's how that looks in dollar terms, for the average company with revenues of \$8.5 billion:

- Beginner:** \$230 million gain
- Implementer:** Additional \$140 million gain
- Advancer:** Additional \$160 million
- Leader:** Additional \$240 million gain

As companies move further along the maturity curve, the net economic impact accumulates, like compounding interest on an investment.

# 11 Rules of the road will help (and they're on the way!)

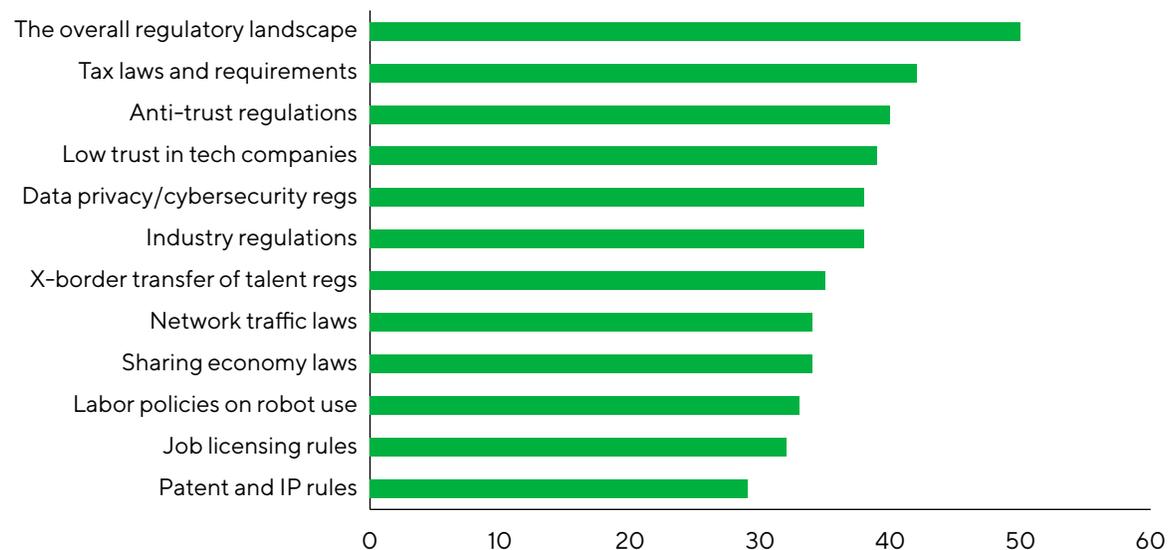
One of the more surprising findings of our study is that a majority of respondents believe that increases in regulation will actually accelerate innovation.

Like it or not, we are quietly rewiring the rules that will shape our lives for years: patent and IP rules, industry regulations, anti-trust laws, privacy rules, autonomous vehicle regulation, laws to help AI and labor exist in harmony, sharing economy regulation and much more.

The key takeaway is that these rules, in aggregate, are not stop signs on the road to progress. In fact, they are more likely green lights that help innovation move more smoothly and efficiently for those who are ready.

## Regulatory rise: innovation catalyst or crusher?

Percent of respondents who believe these areas of regulation will accelerate innovation.



Response base: 2,491 business and technology leaders  
Source: Cognizant  
Figure 14

A photograph of two women in a professional setting. One woman, wearing glasses and a striped shirt, is leaning over and pointing at a tablet held by another woman. The second woman, wearing a light blue top and large hoop earrings, is looking at the tablet with a focused expression. The background is dark with blue bokeh lights.

# Assessing and Advancing Your Digital Maturity

# Mistakes to avoid

Every company is striving to adapt to modern-economy realities. There are leaders and laggards, but most are in the middle.

Based on our findings, client work and other research, here are six obstacles to avoid while navigating the digital maturity curve.



## 1. Assume things will get easier.

Most respondents have built a solid foundation for the modern economy, but that doesn't mean they're finished.



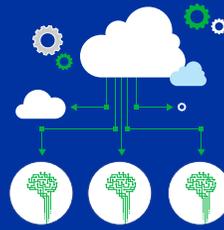
## 2. Consider software an IT problem.

In the modern economy, it's all about code, making software everyone's concern.



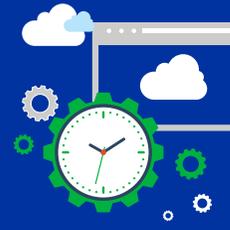
## 3. Ignore your data.

Effective data management is among the most important steps any company can take to win in the new economy.



## 4. Wait for AI to “happen.”

A dollar invested in AI today will lead to a great ROI for those willing to place their bets.



## 5. Take your time.

The longer you take to catch up, the wider the gap you have to close.



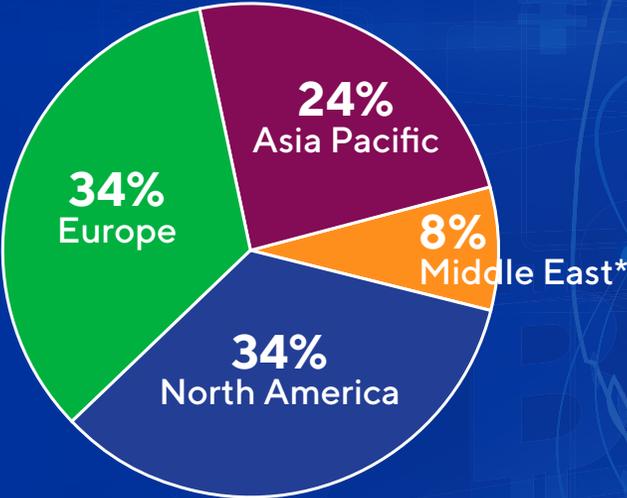
## 6. Treat this organizational change like any other project.

Adopting advanced technologies and business approaches is an ongoing secular shift, not a single IT project.

# Methodology

Working with ESI ThoughtLab, we surveyed a cross-section of C-level executives from April to May 2019 and their direct reports across regions and industries, and from a mix of functions across the enterprise. The breakdown of the survey sample is displayed in the following graphs.

## Respondents by region and country

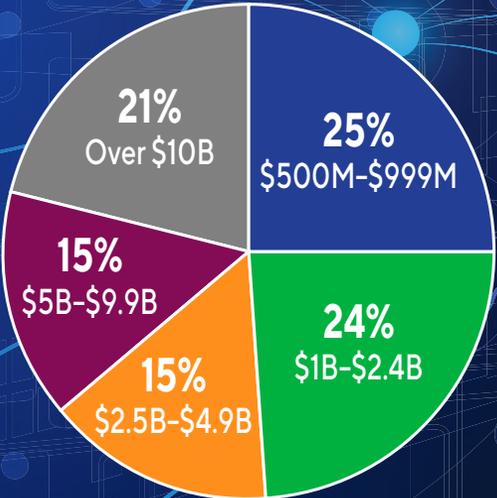


\* UAE, Saudi Arabia, Oman

## Respondents by industry

Respondents were spread evenly by industry (healthcare payers, healthcare providers, technology hardware, technology software, consumer products, financial services, industrial manufacturing, insurance, life sciences, media/entertainment/publishing, retail, telecommunications, utilities). Each of the 12 industries represented 8% to 9% of the sample, or approximately 200 respondents per industry. Hardware and software companies were combined into one of the 12 industries.

## Respondents by revenue





## Endnotes

<sup>1</sup> Klaus Schwab, “*The Fourth Industrial Revolution: What It Means, How to Respond*,” World Economic Forum, Jan. 14, 2016, <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>.

## About the author

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Paul Roehrig, Ph.D., is Head of Strategy for Cognizant Digital Business. He is the founder and former Global Managing Director of Cognizant’s Center for The Future of Work. Along with Malcolm Frank and Ben Pring, he is a co-author of *What To Do When Machines Do Everything: How to Get Ahead in a World of AI, Algorithms, Bots, and Big Data* and *Code Halos: How the Digital Lives of People, Things, and Organizations are Changing the Rules of Business*. He can be reached at [Paul.Roehrig@cognizant.com](mailto:Paul.Roehrig@cognizant.com) | [linkedin.com/in/paul-roehrig-020785](https://www.linkedin.com/in/paul-roehrig-020785).

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For more information and to find out more about Cognizant, visit [www.cognizant.com/digitalbusiness](http://www.cognizant.com/digitalbusiness).

For the full report, please visit [cognizant.com/digital-transformation-report](http://cognizant.com/digital-transformation-report).

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We help clients build digital businesses and innovate products that create new value – by using sensing, insights, software and experience to deliver on what customers demand in the digital age. Through IoT, we connect the digital and physical worlds to make smart, efficient and safe products, operations and enterprises. Leveraging data, analytics and AI, we drive intelligent decisions and anticipate where markets and customers are going next. Then we use those insights, combining design and software to deliver the experiences that consumers expect of their brands. Learn more about how we're engineering the modern enterprise at [www.cognizant.com/digitalbusiness](http://www.cognizant.com/digitalbusiness).

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