



Creating the autonomous business

Inside the minds of business leaders

ORACLE



Data everywhere

**Generated everywhere in
your organisation, data is now
dominating the boardroom
and strategic planning.**

**There has been a shift from
“how do we store data?”,
through “how do we secure
data?”, to “how do we use
data to gain a competitive
advantage?”**

The key to that last question, is to perfect the first two; take accountability for how you use, store, manage and secure data – and then you have the building blocks to evolve how you drive your data, so that your data can drive your business.

This research will explore the idea of data leaders and data laggards. Data leaders are ‘winning’ in the age of data proliferation by laying the foundations to exploit their data for insights which they use for innovation and in turn for business growth. The laggards fall behind, overwhelmed and inhibited by data instead of seeing it as the catalyst for success.

Our evidence shows that organisations classed as data leaders experience better outcomes, and this aligns to wider business growth. More importantly – this report tells you what they are doing – and therefore what you could do to get there.

Data will be at the core of all future innovation and internal disruption, and those that are data leaders will become innovation pioneers and put themselves in the best position for success. Data leaders are far more likely to be excelling at innovation, experiencing a much-needed boost to customer satisfaction, and enjoying significant market growth.

Is this all down to better use of data? Maybe, maybe not. But you’ve told us that it is an essential in helping organisations excel.

Which brings us onto the topic of autonomous technology – systems that automatically sort and prioritise data, that can immediately act on data insights, and take steps to secure itself. Not everyone is buying into this concept as a technology, some even label it as ‘overhyped’.

Others understand that the benefits autonomous capabilities offer positively affect the whole business, not simply the IT department (i.e. impacts such as accelerated innovation, better understanding of customers, empowered workforces, and improved decision-making). With that in mind, it’s imperative not just to automate, but to become hyperconnected too.

How?

Read on to find out more.

Key findings

- 1 Three quarters of IT data leaders are **highly confident** that their organisation is generating meaningful insights with their data, **compared to one in ten data laggards**
- 2 Nearly **eight in ten IT data leaders** report that they have the strategies in place to **extract insights relevant to their job**, compared to **a third of data laggards**
- 3 **It starts with getting data in order** – IT data leaders are ten times more likely to feel **confident in managing systems data** than data laggards
- 4 Most IT heads are **only just getting started on transformation strategies**, risking being left behind in delivering the agile organisation
- 5 Other departments see themselves as **less accountable than IT** for sharing data responsibly
- 6 While most IT respondents say that **connecting systems is a priority** for their organisation, **less than half have completed innovations** in this area
- 7 While most IT respondents say that **intelligent automation is a priority** for their organisation, **only a third have completed innovations** in this area
- 8 **If you want to improve growth, don't ignore automation**; organisations who have seen **significant growth are twice as likely to have completed intelligent automation initiatives** than those with marginal growth
- 9 While the **majority of those in IT departments see the value of autonomous capabilities**, this drops closer to half among other departments
- 10 **Organisations that implement agile technology are growing faster** – over half of those with significant growth have completed connected systems initiatives, compared to a third of those with marginal growth

10x

Data leaders are ten times more likely to be confident in **managing systems data**

2x

Organisations that have experienced significant growth are twice as likely to **have completed intelligent automation initiatives**

46%

Connecting systems is a priority – but **less than half have completed innovations** in this area

Methodology

The results presented in this report are based on three separate mobile-only, 23-question global surveys conducted between September 2018 and January 2019. These surveys targeted manager, director, vice-president or C-Level executives with influence in the decision-making process of cloud solutions, platforms, and infrastructure or department-specific software. Respondents worked within organisations generating revenues between less than £1 million to more than £500 million, with 100 to 50,000 employees.

Maturity model methodology

Each respondent was scored based on the maturity of their answers to three questions on the topics of internal protocols around data use, teaching people to use data responsibly, and the methods they use to share critical data.

Higher scores were given to the answers that are closest to best practice. This resulted in a spread of responses across the scale. The top 10% of the total respondents are classified as 'data leaders' and the bottom 10% are 'data laggards'. The IT department is over-represented in the leaders group, whereas other departments are under-represented.

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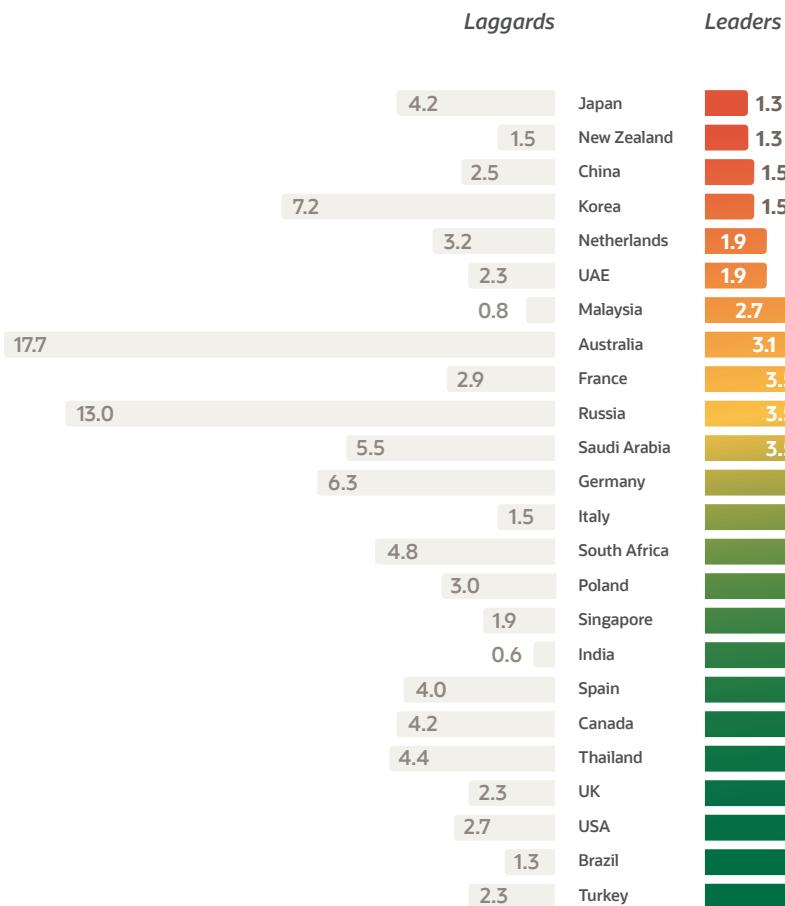
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A global view of data leaders

The Americas lead the way as data leaders, followed by much of Europe. APAC and Africa are still catching up, and can learn from what leaders do differently.

Analysis showing the percentage of leaders that fell within each country

All respondents: Base 5539



Europe



Africa



North, Central and South America



Asia, Japan and Pacific

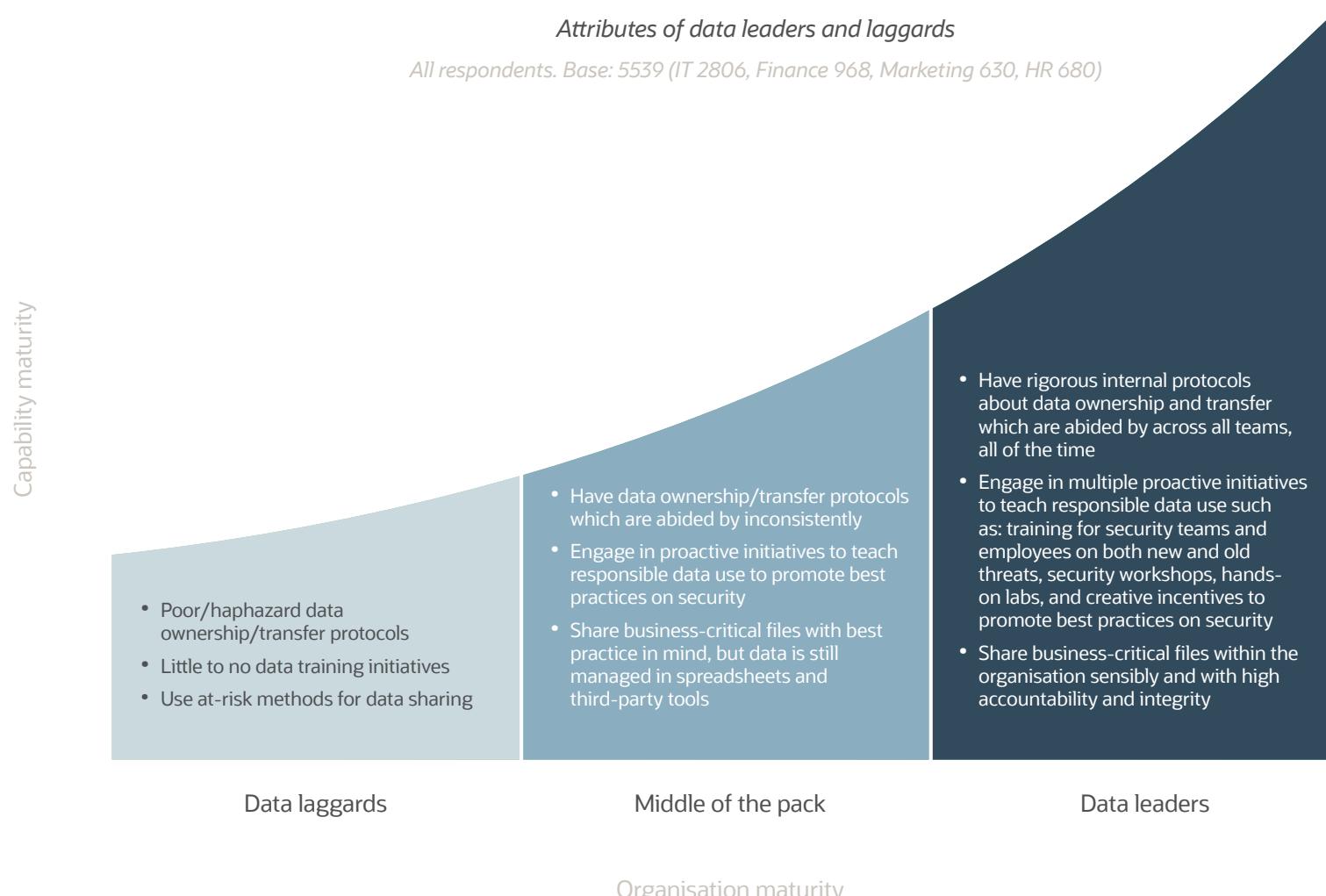


It pays to be a data leader

Managing the detail to reap the value

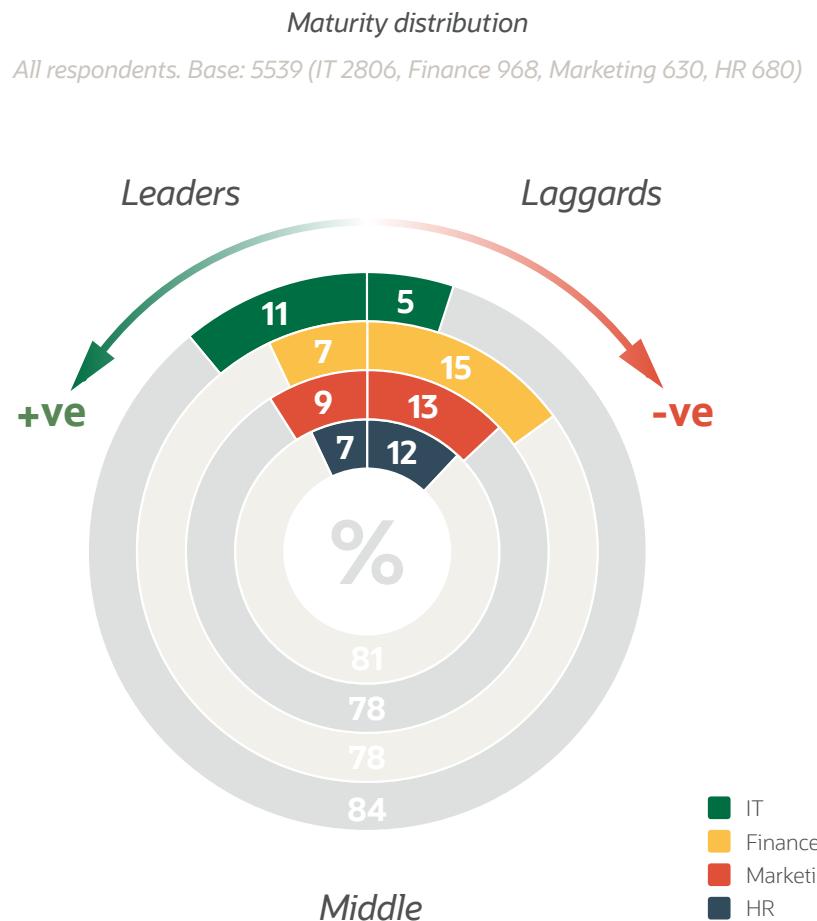
It pays to be a data leader – What makes a data leader?

There are organisations far ahead of the rest when it comes to data management. Being a leader requires effort, but it's worth it in many ways. Better data means better decision-making, and better decision-making means top and bottom line benefits to a business. **It pays to be a data leader.**



It pays to be a data leader – How did we define data leaders and data laggards?

IT departments lead the way in terms of operating as data leaders, and are notable by their absence in the data laggards group. By contrast finance departments are behind as leaders, and significantly over-represented in the laggards.



So what makes a data leader?

Data leaders are respondents who are putting the effort into building best processes around data. They:

- work at organisations that have rigorous internal protocols about data ownership and transfer which are abided by across all teams.
- engage in multiple proactive initiatives to teach responsible data use such as: security workshops mixing together people from different lines of business, hands-on labs on secure usage of devices and connections, and creative incentives to promote best practices on security.
- share business critical files within the organisation sensibly and with high accountability and integrity – more often using methods like secure on-premises database access, and less likely to use email or flash drives.

Data laggards, on the other hand, are far less likely to engage in the above, and are almost certainly not doing all three.

It pays to be a data leader – What is the incentive?

The business benefits of data leadership are clear – with **significant uplift in performance across critical areas** such as data strategy, reputation management and both customer and employee experiences. But there are other benefits to being out in front when it comes to data management.

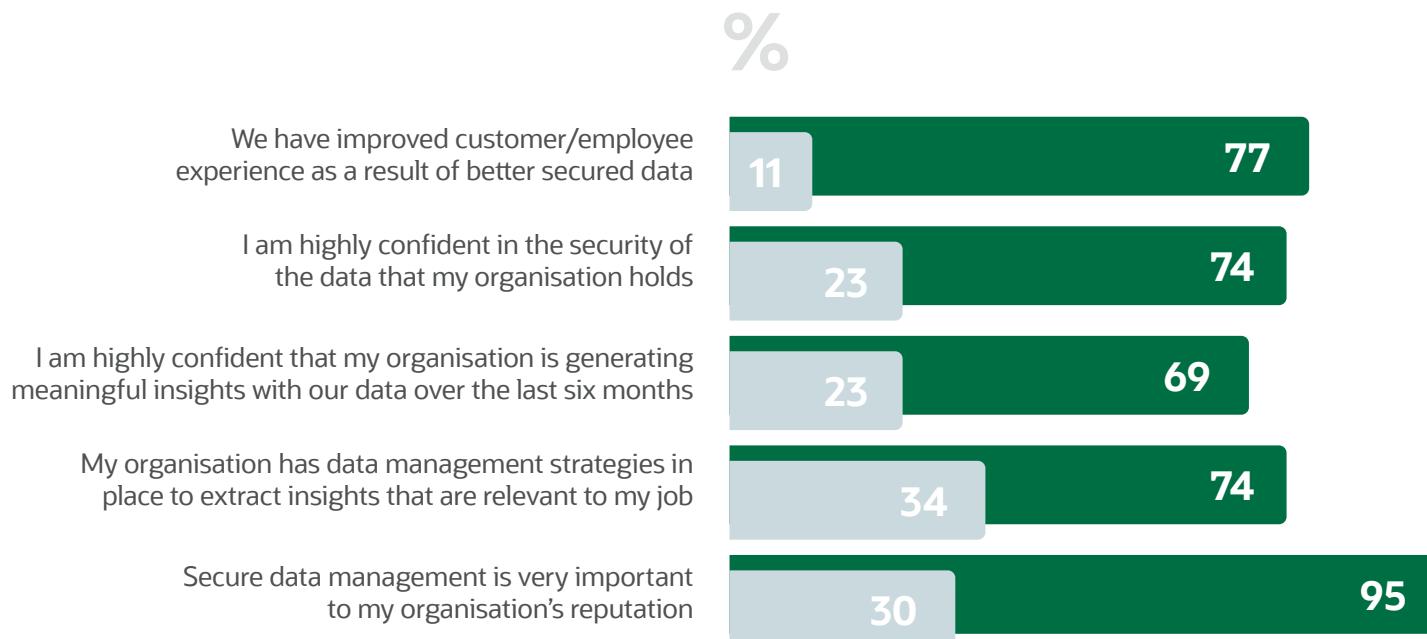
As eluded to, leaders have higher confidence in the security of the data and also in the ability to use it to generate meaningful insight, which is key to business decision-making in this day and age.

The output of all this hard work is being confident in your data.

*Showing responses to five critical factors of data management,
split by data leaders and data laggards*

All respondents. Base: 5539

■ Data leaders
■ Data laggards



It pays to be a data leader – The confidence index

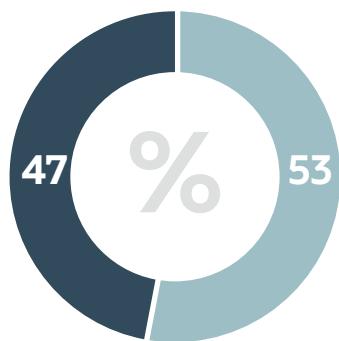
Those that get their data under control have **greater confidence** in key areas such as security, ethics and insights.

But not many are there yet. While a significant proportion of respondents in the IT department said that they are highly confident in each of the following, only 33% of respondents are highly confident in ALL of these critical areas:

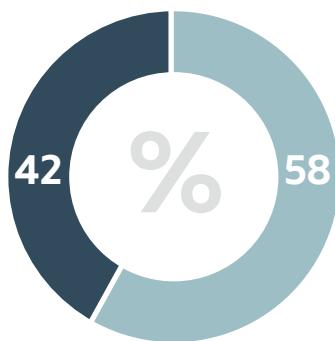
- the security of the data your organisation holds
- that your organisation is managing the deluge of data to generate meaningful insights, based on the last six months
- that your organisation's use of data is ethical, based on the last six months

This low confidence in data across the business as a whole should concern organisations – but perhaps it's down to the sheer amount of data that they now hold?

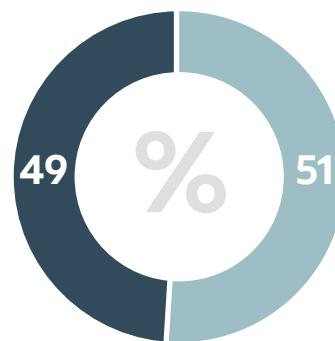
Autonomous capabilities could be the solution here. Once set up they run in the background – and business leaders can use them to achieve meaningful insights, ensure security and monitor ethical use. These databases can also be leveraged to create deeper, predictive intelligence by combining realtime data sets, automating insights and even improving routine processes.



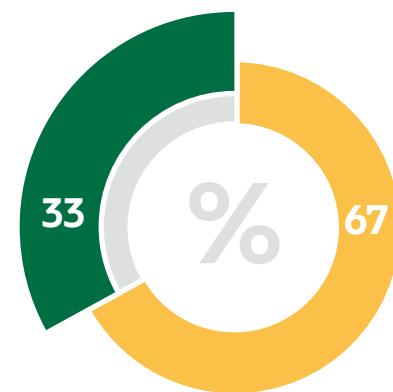
How confident are you in the security of the data your organisation holds?



How confident are you that your organisation is managing the deluge of data to generate meaningful insights, based on the last six months?



How confident are you that your organisation's use of data is ethical, based on the last six months?



Highly confident/Not highly confident in all three



Data is still an issue

Getting to the root of the issue

Data is still an issue – Leaders can better cope with the deluge of data

While leaders are navigating the treacherous waters of big data with ease, laggards will struggle to keep their heads above water with the **exponential growth in data** across the business.

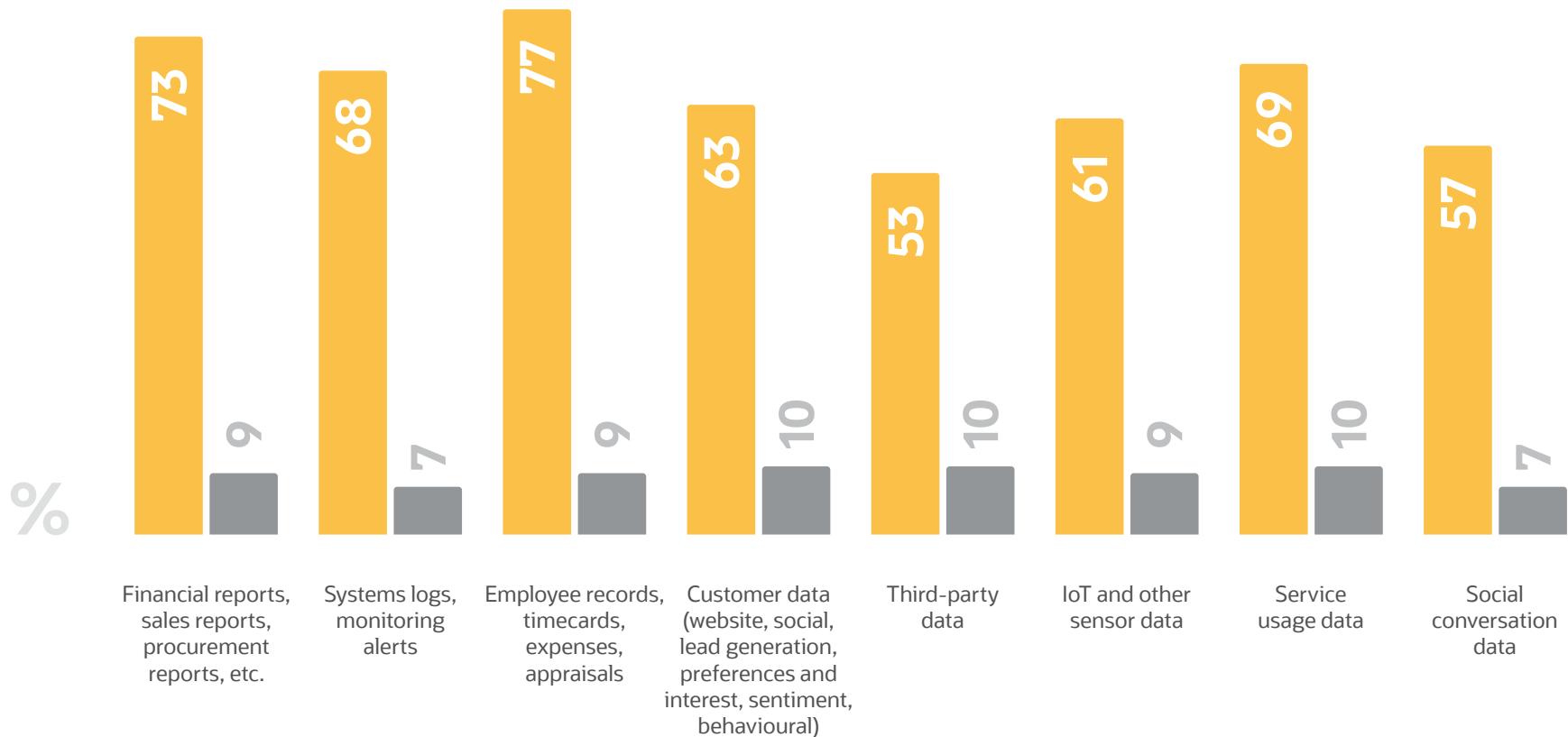
It's important to note that all organisations and departments are struggling with the amount of data in key areas such as customer data and third-party data. If they are struggling with the amount of data now, then in three years' time this will only get worse as volumes of data to process constantly increase.

It stands to reason that if a business cannot master the foundations of data management, they cannot master data management that will enable decision-making that will drive innovation – the structures and processes simply will not support it.

*Looking ahead, how manageable do you think the amount of data generated by the following will be in the **next three years**? – Completely manageable*

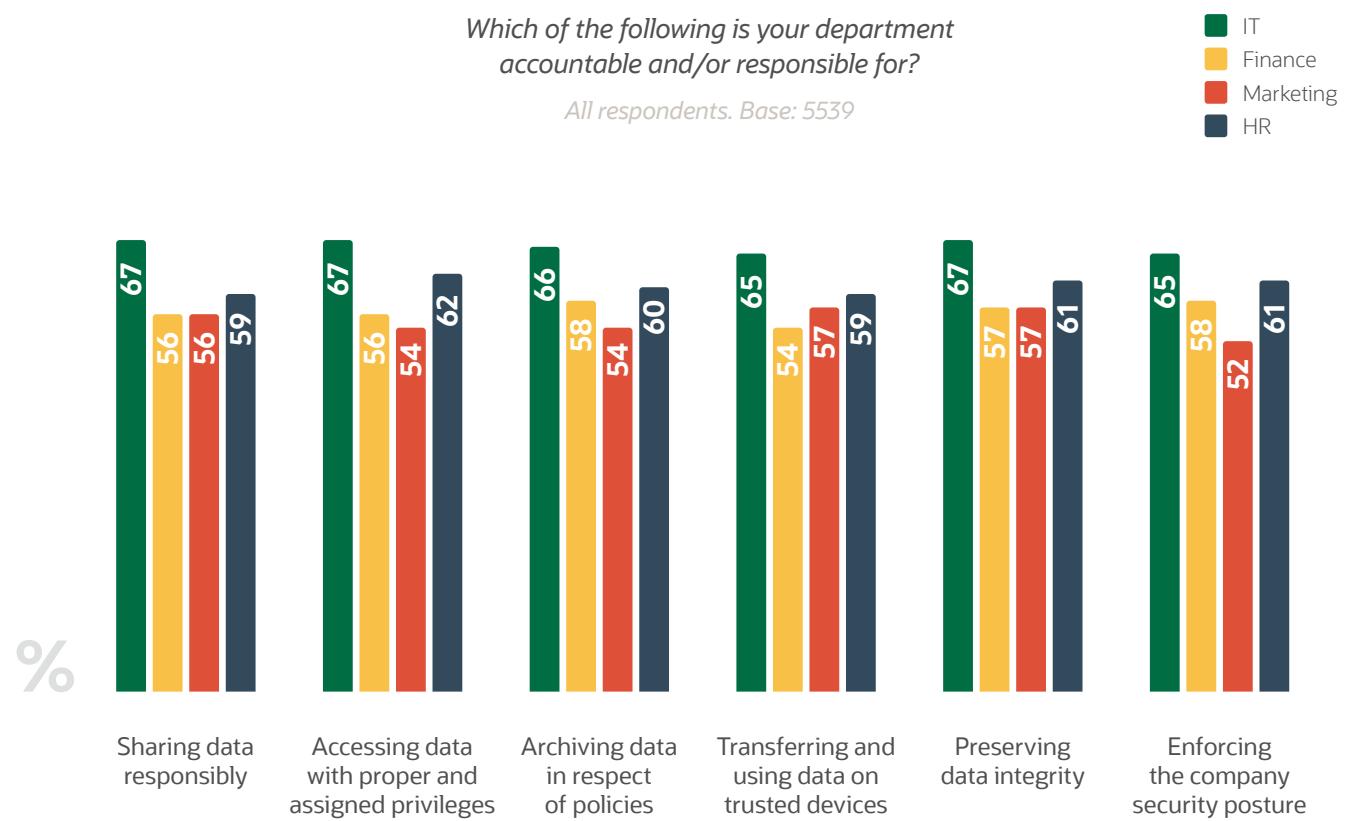
All respondents. Base: 5539

■ Leaders
■ Laggards



Data is still an issue – Taking accountability for data is key

While the IT department has historically been seen as responsible for an organisation's data, the rise of **shadow IT across the business** means most departments have their own data, **often in siloed systems**, but not all department heads yet see their function as being ultimately accountable for data management.



It comes down to the establishment of processes and responsibilities between departments. IT needs to own the framework and have oversight of the implementation, but each department needs to adhere and be accountable for their piece of the jigsaw. The end goal is consistent processes and a single source of truth for data.

It is clear that once appropriate accountability for data has been taken, all organisations can benefit from a solution that not only ensures that they can manage their data and become data leaders, but also go on to be confident enough to then turn that data into insight.

But business leaders are currently struggling in areas where data analytics and insight are required... they are not getting the investment into the tools that they need for this, and as a result, priorities are not being completed.

In order to remain competitive in the future and not drown in data, the solution should be to embrace predictive analytical capabilities to enable faster and more accurate decision-making, creating a hyperconnected business – a true competitor in 2020.

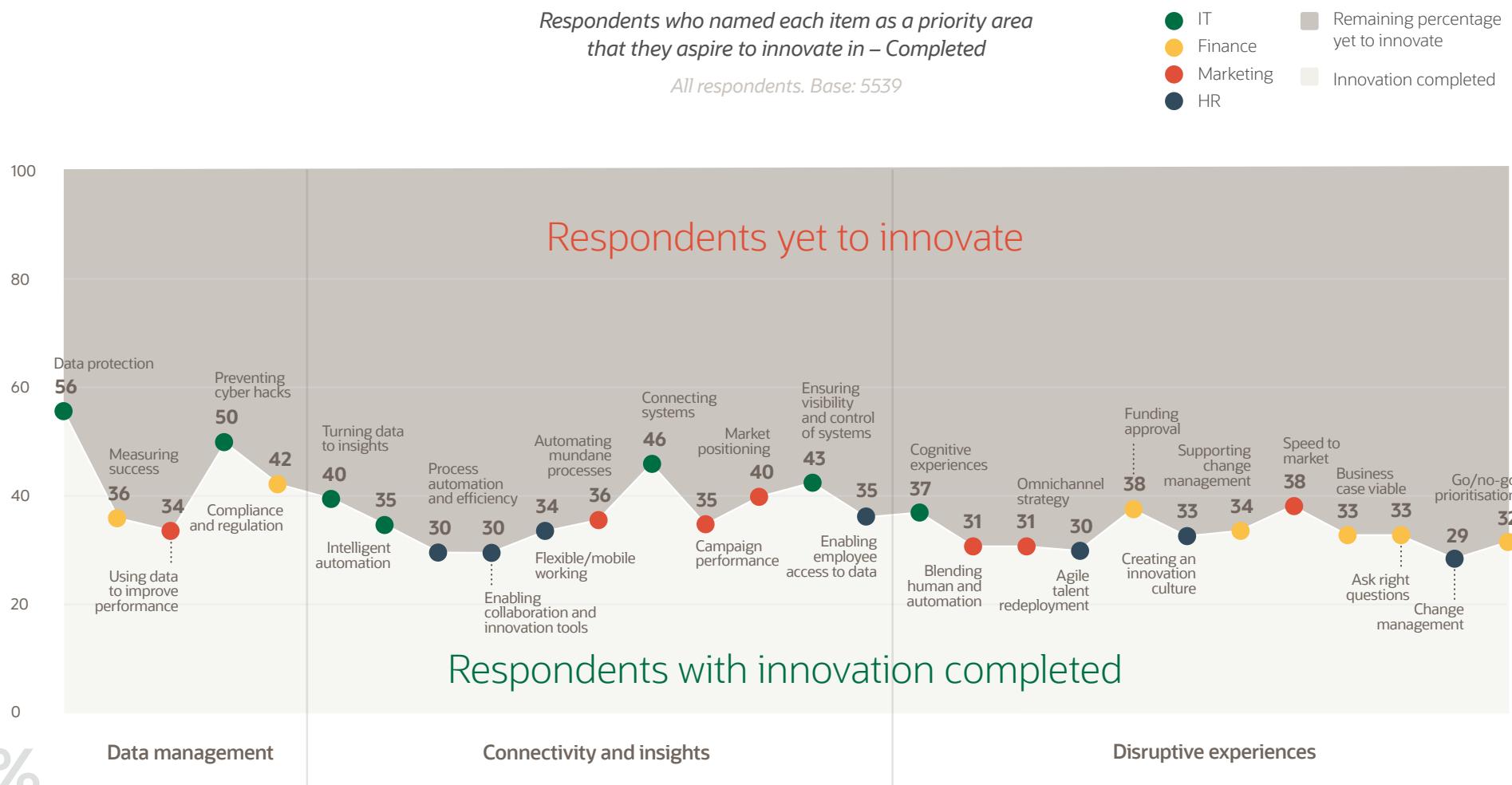
Connecting data is key to success

Turning data into insights



Connecting data is key to success – Only the minority are achieving innovation priorities

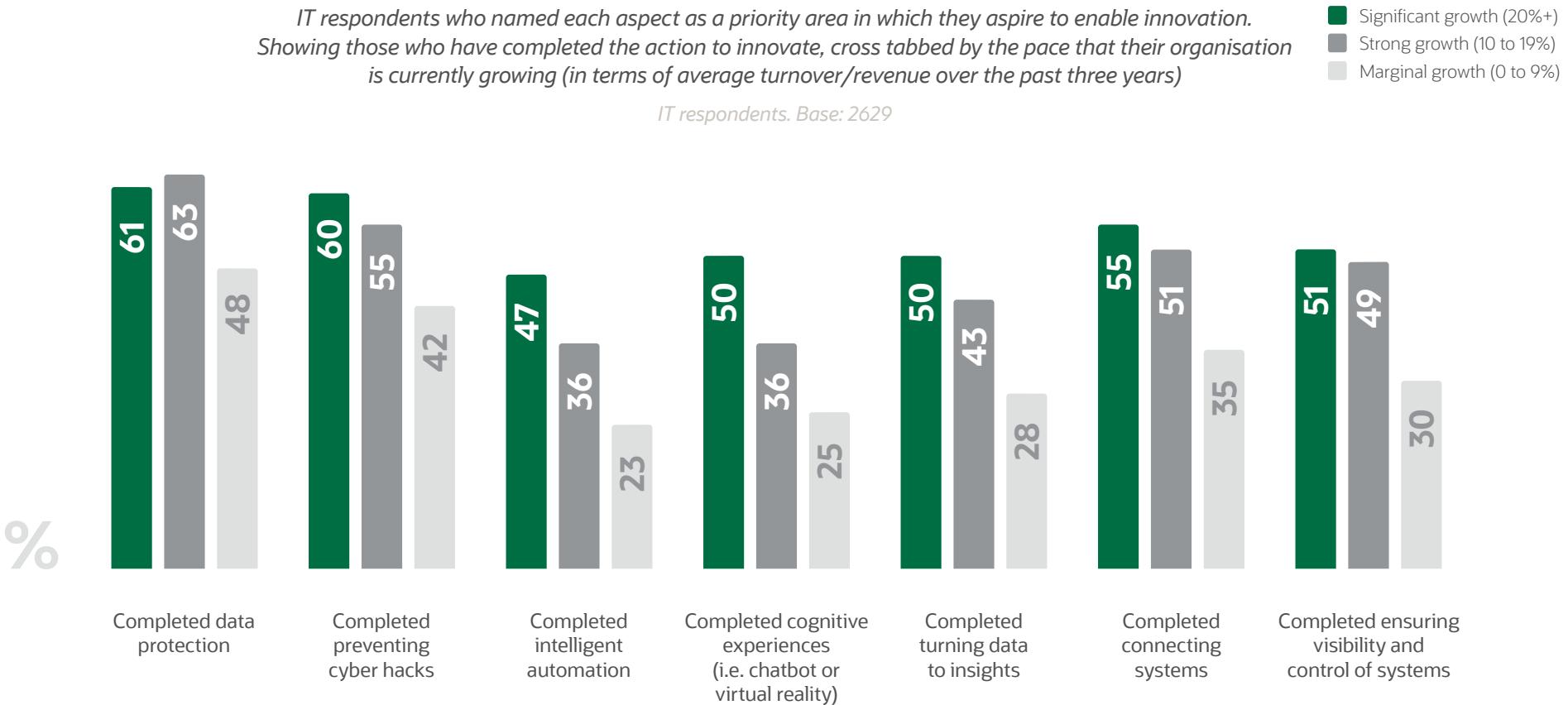
Only the minority of department leaders in most cases have gone on to complete priority areas of innovation. And several of those would have been easier to complete had there been autonomous capabilities in the background, enabling a hyperconnected environment, and **allowing businesses to be more future proof and secure**.



Connecting data is key to success – Completing the transformational journey is worth it

And for many, completing priorities – especially in the areas where autonomous capabilities can help connect data – is linked to **more substantial growth** of the business over the past three years.

Looking specifically at the responses within the **IT department**, those who are seeing higher growth in the last three years are more likely to have completed their priorities around turning data into insights, intelligent automation and connecting systems.



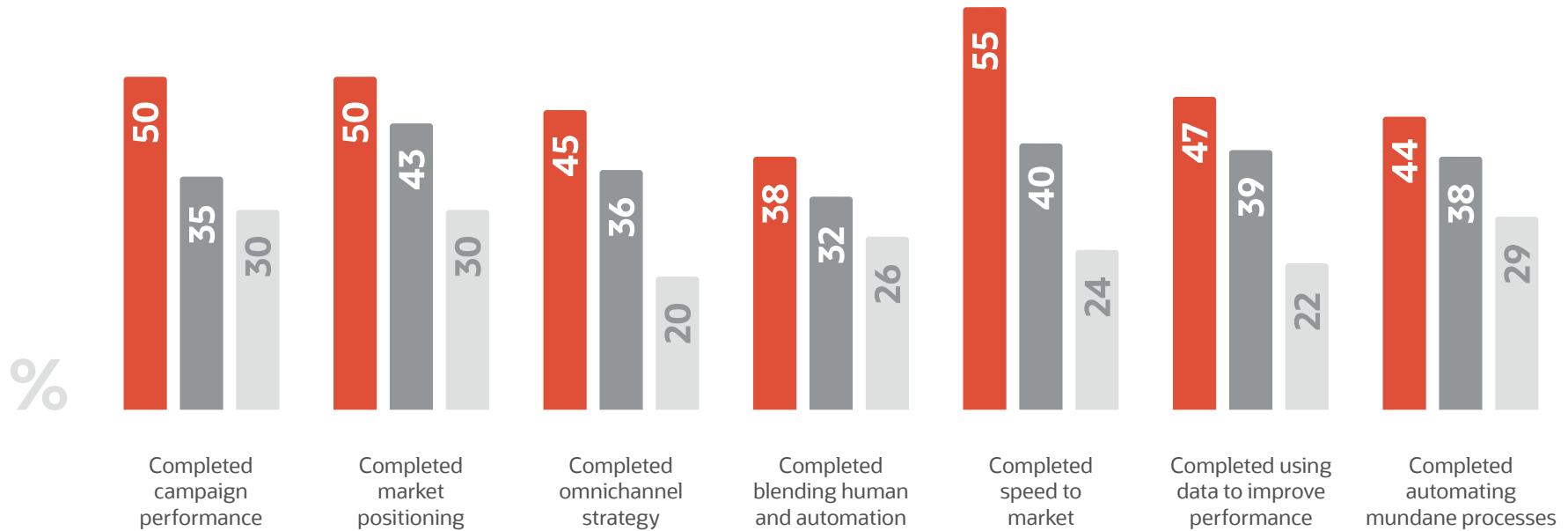
Connecting data is key to success – Completing the transformational journey is worth it

Looking at priorities within the **marketing department**, those who are more accomplished at using data to improve performance are more than twice as likely to be in organisations with significant growth than marginal growth – meaning that utilising autonomous capabilities in this area would potentially lead to some **significant positive impacts** on the business.

Marketing respondents who named each aspect as a priority area in which they aspire to enable innovation. Showing those who have completed the action to innovate, cross tabbed by the pace that their organisation is currently growing (in terms of average turnover/revenue over the past three years)

■ Significant growth (20%+)
■ Strong growth (10 to 19%)
■ Marginal growth (0 to 9%)

Marketing respondents. Base: 790



Connecting data is key to success – Completing the transformational journey is worth it

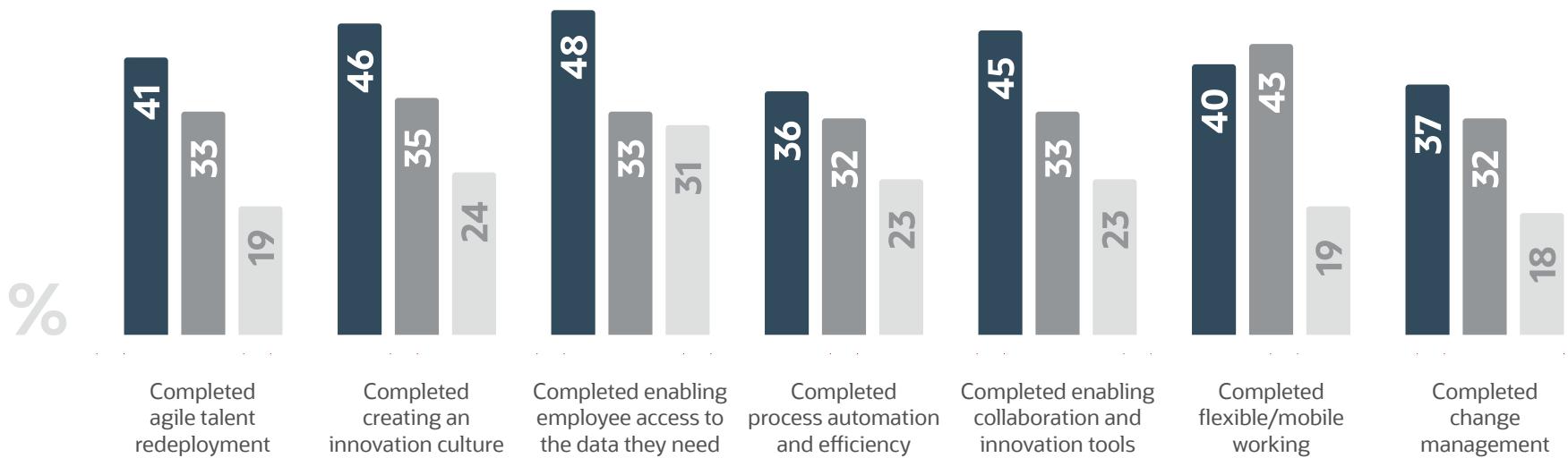
The same can be said for **HR**. HR respondents who have completed priorities around talent redeployment, data access and process automation are more likely to be seeing significant growth.

Autonomous databases could be a catalyst to support the completion of these priorities; they can support the speed, scale and robustness of routine processes and relieve the administrative burden for HR.

*HR respondents who named each aspect as a priority area in which they aspire to enable innovation.
Showing those who have completed the action to innovate, cross tabbed by the pace that their organisation
is currently growing (in terms of average turnover/revenue over the past three years)*

HR respondents. Base: 710

■ Significant growth (20%+)
■ Strong growth (10 to 19%)
■ Marginal growth (0 to 9%)



Connecting data is key to success – Completing the transformational journey is worth it

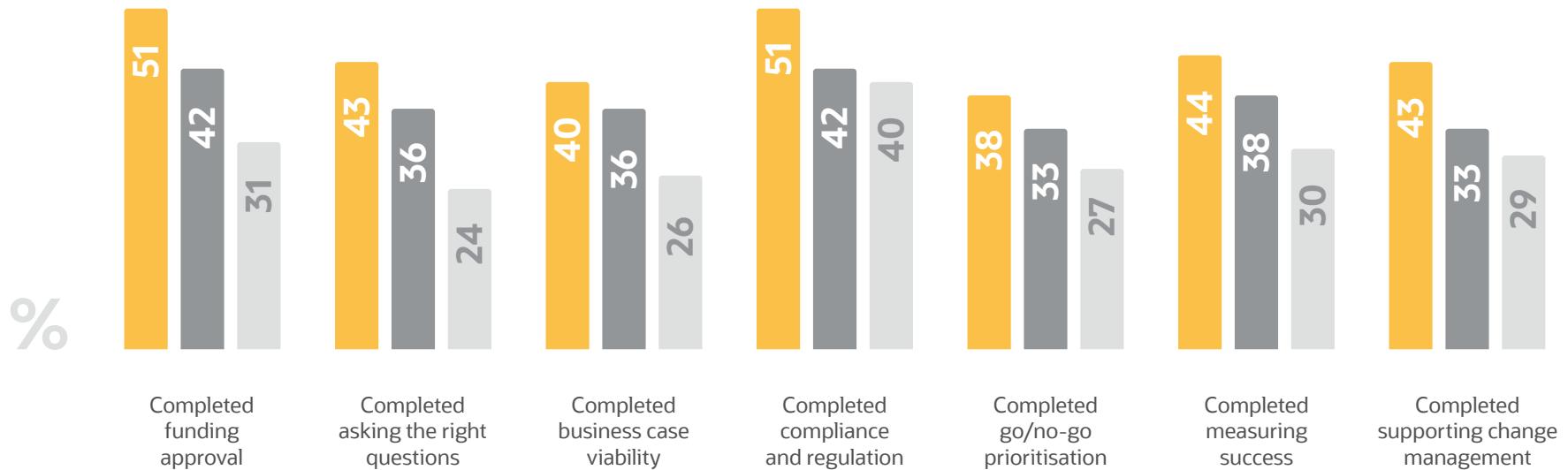
Finally in this series, we look at the responsibilities of the **finance department** and in general we see again that completion of innovation priorities around access to hyperconnected data is linked to more business growth over the last three years.

The desire for finance teams to connect data across the finance and supply chain functions to enable better forecasting, decision-making and prioritisation of investments is clear, and will reward those that deliver transformation in these areas.

Finance respondents who named each aspect as a priority area in which they aspire to enable innovation. Showing those who have completed the action to innovate, cross tabbed by the pace that their organisation is currently growing (in terms of average turnover/revenue over the past three years)

Finance respondents. Base: 845

■ Significant growth (20%+)
■ Strong growth (10 to 19%)
■ Marginal growth (0 to 9%)



Connecting data is key to success – Autonomous capabilities are key to successful transformation and hyperconnectivity

All business functions are struggling to fulfil their priorities, but doing so will result in increased growth for the business.

All departments are demanding deeper, more connected, and more predictive analytics in order to fulfil their strategic objectives – something that autonomous capabilities can help with.

These should-be-connected areas often have the biggest gaps in terms of completed priorities, further emphasising the need for autonomous databases. Autonomous systems provide insight faster, provide more accurate analysis on which to base decisions, are scaleable and have no downtime. They allow you to get the best out of your data and allow your business to grow and compete.

The advantages of autonomous databases make a strong case for everyone to adopt as it will allow you to implement and exploit technologies that you can use to disrupt your business for the better.

However, some business leaders may still require some convincing. As we will see, not everyone recognises the transformative impact, or fully appreciates the value that autonomous technology can bring.



Disrupt yourself

A change is as good as a rest

Disrupt yourself – Leaders are not recognising the transformation potential of key technologies

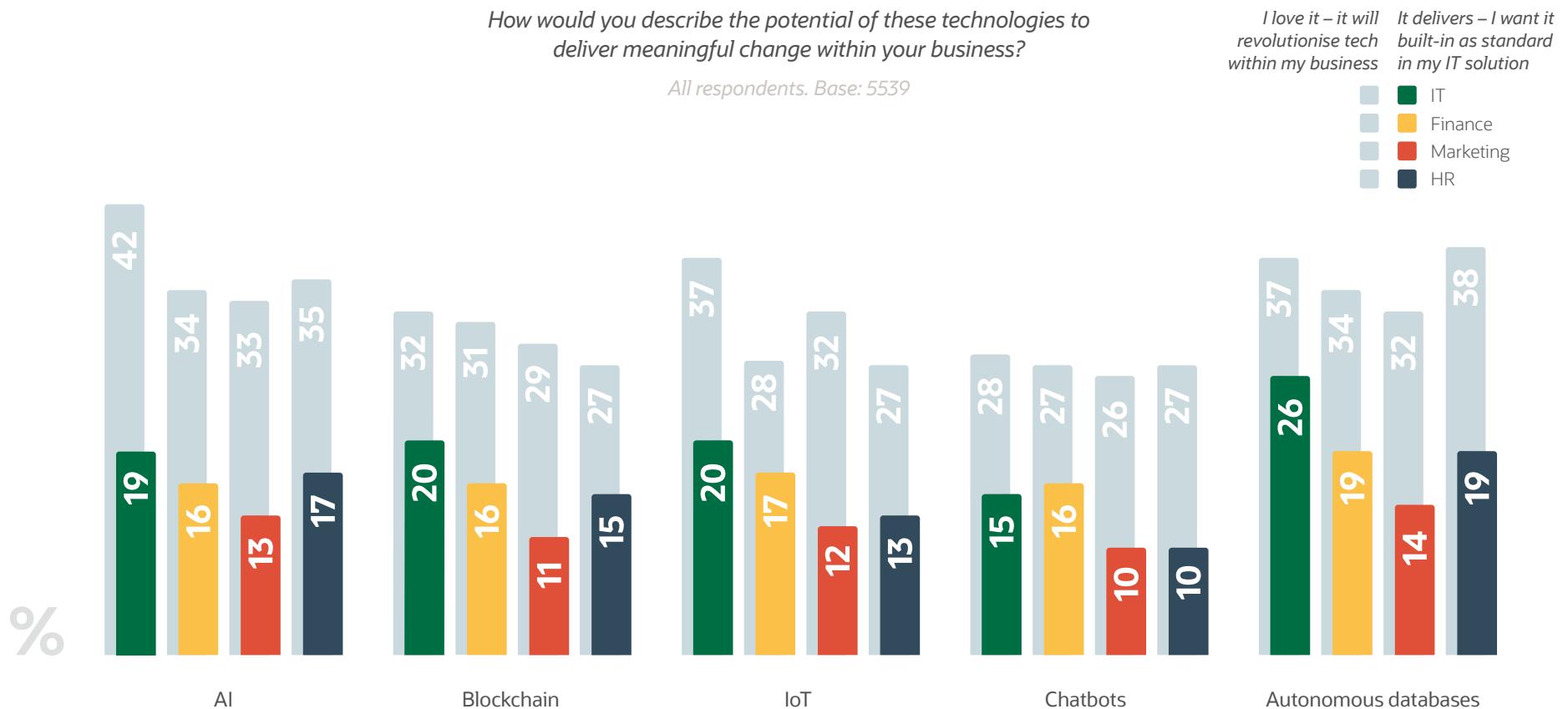
Business leaders need to disrupt their organisations through innovation, in order to remain competitive. **Technology is key to doing this**, but it seems that not everyone is aware of the benefits it offers.

It is good news for businesses that the majority of those in the IT department are generally positive, or at least pragmatic about autonomous databases, because thinking about how autonomy and predictive analytics can help the business more widely is important if the business is to succeed.

But that message isn't clear to everyone; when asked how they feel about each technology, it was a small minority in each case that answered positively... are department leaders seeing the potential?

How would you describe the potential of these technologies to deliver meaningful change within your business?

All respondents. Base: 5539



Disrupt yourself – Under-appreciate emerging technologies at your peril

The evidence suggests a low appreciation of the potential for the variety of data-enabled technologies.

The implication here is that many are not appreciating that value of having their data work for them could be transformative.

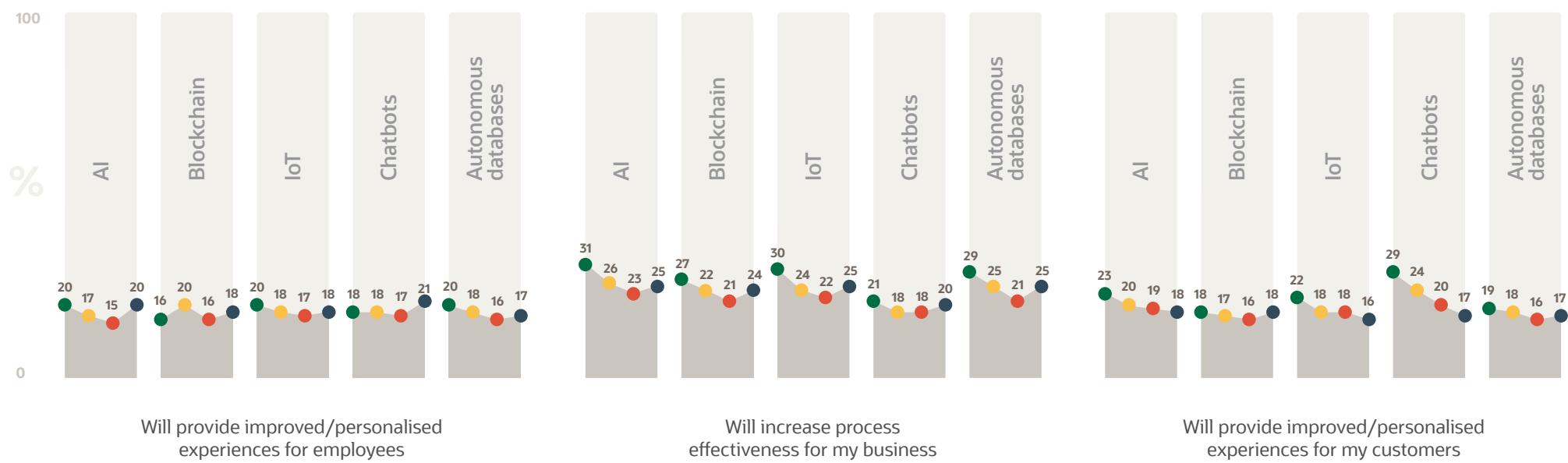
It's important for all departments to understand that innovative technologies can help not only collect data (IoT), but then make sense of it and turn it

into insight (AI and autonomous databases) and recommendations (ML). And using that insight to then accomplish their objectives (Chatbots and Blockchain can support communication and integrity respectively) will mean that the business will become hyperconnected, set itself up for success and experience more growth as a result.

How would you describe the potential of these technologies to deliver meaningful change within your business? – Select all that apply

All respondents. Base: 5539

● IT Yes
● Finance No
● Marketing
● HR



Disrupt yourself – Autonomous databases are crucial to business innovation

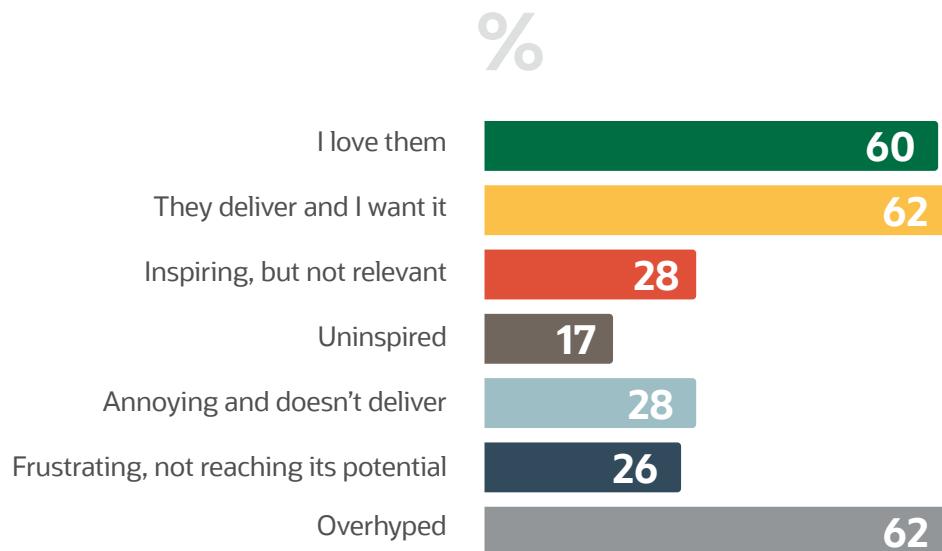
Three in five of those who love autonomous databases identify it as **very important for driving innovation** within their organisation – more so within IT than across the business as a whole.

But even those who don't share this affection can't help but acknowledge the benefits of a technology such as this. Most IT respondents who feel that autonomous databases as a technology is overhyped, still admit (grudgingly perhaps) that despite their personal opinion it is a

technology that will be very important for driving innovation in their business moving forward. In fact, this is the same percentage as those who see autonomous databases as a technology that delivers, and they want it.

Analysis of those who said that autonomous databases are very important to innovation, cross tabbed by their view of autonomous databases

IT respondents. Base: 2629



IT has widely been viewed as a cost centre of many businesses, but in reality, they should be viewed as an essential service and advisor to the wider needs of the business.

As support for things like networks and cloud will be increasingly outsourced to the providers themselves, instead of fearing that autonomy will absorb yet another part of their role, IT should see autonomous databases as something that should free up time for them to deliver real solutions with high ROI to the rest of the business.

As for the rest of the business, understanding the litany of benefits on offer via autonomous capabilities will be essential if their businesses are going to thrive – or even merely survive in the modern economy.

What business wouldn't want to:

- be more competitive?
- be more secure?
- be more future proof?

And through embedded AI and machine learning:

- simplify data management
- accelerate innovation
- understand customers
- empower workforces
- manage data in realtime
- augment and improve decision-making

Wondering how to set yourself up for success?

Follow the four steps overleaf.

Conclusions – Four steps to getting data to drive your business

1

Evolve how you drive your data – by becoming accountable for it

All departments have their own data, often in siloed systems away from IT. At the moment, other departments are not held to the same standards as IT – and that is why they are under-represented in the leaders group.

2

Follow IT's lead and become a data leader

All departments should strive to have the same processes as data leaders – IT are leading by example and should share knowledge and best practice across the rest of the business, becoming a business partner.

The key areas of focus are:

- *Nail down rigorous internal protocols about data ownership and transfer*
- *Engage in proactive initiatives to teach responsible data use*
- *Share business-critical files within the organisation sensibly and with high accountability and integrity*

This will result in confidence in your data, and increase your credibility as a business leader.

3

Connect up your data in an autonomous environment

Once accountability has been taken and the foundations of good data management have been laid, it's time to drive your data using autonomous capabilities.

Embracing autonomous capabilities gives you the power to better manage multiple data sets from various sources and bring it together to create deeper, more powerful insights across the business: from customer needs and behaviours, to financial modelling and supply chain issues, to employee sentiment and risk analysis. It's essential to being able to keep up in today's market.

4

Use autonomous capabilities to deliver insight and growth for the business

Autonomous databases augment decision-making – the benefits of which are vast, as we saw on the previous page, but the journey is simple:

- *Autonomous databases provide better insight and more accurate forecasts for the business*
- *As a result, innovation is enabled company-wide, and innovation-based priorities completed*
- *Those who complete their innovation priorities are more likely to see more growth for the business.*



To learn how these transformational technologies can help innovate your IT department, **why not try Oracle Cloud today?**

 Find out how Oracle Cloud can help