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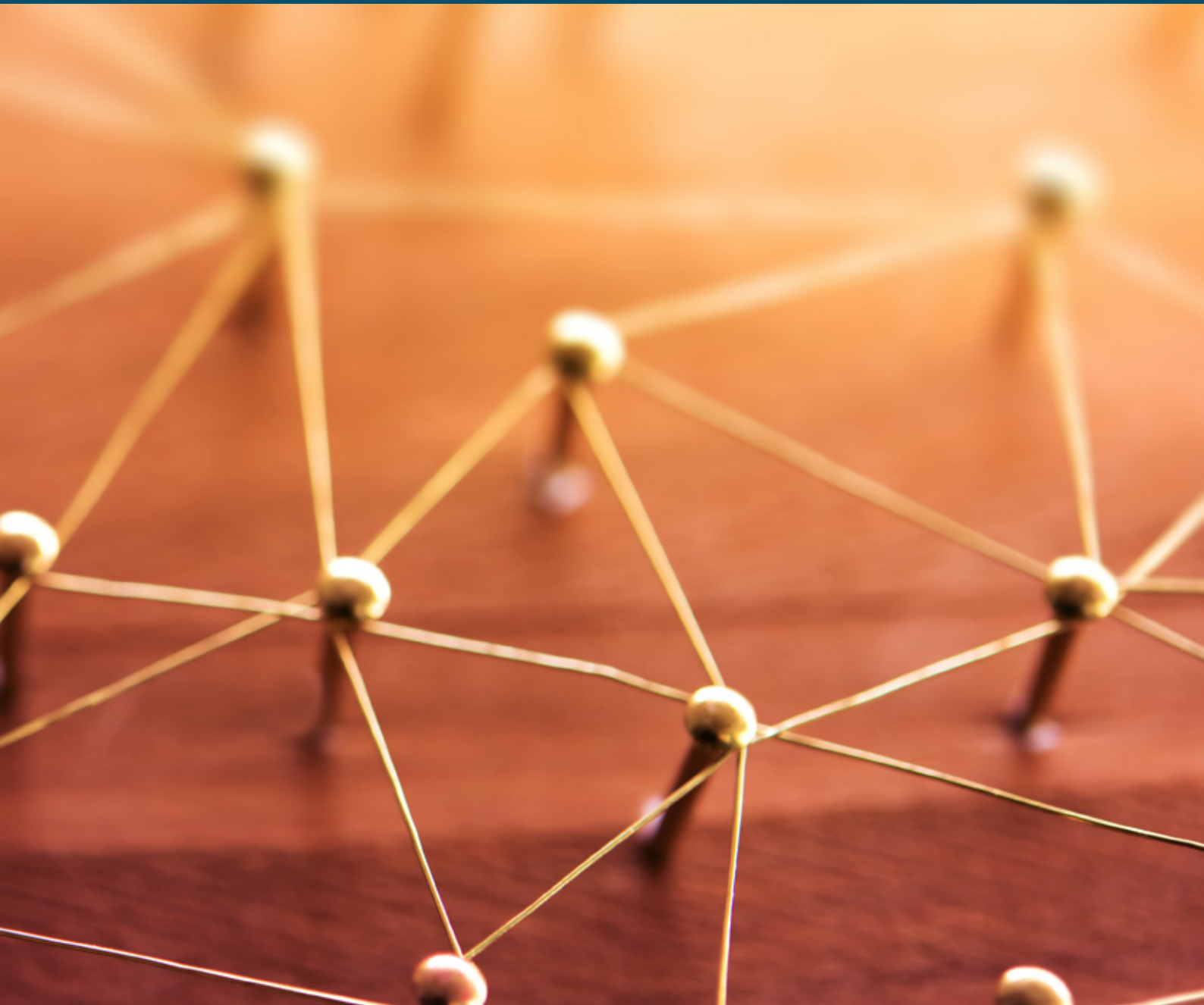
BEYOND TECHNOLOGY: HOW CAN ORGANISATIONS DRIVE SUSTAINABLE VALUE FROM THEIR DATA INVESTMENTS?

The organisations that will succeed in a data-driven world are those that understand how to manage and integrate data into their operating model to unlock business value from their data assets. Those that still see it as a technology problem will be left behind.

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EXECUTIVE SUMMARY ⊙

The good news from our 2020 CIO and IT leadership survey is that most large organisations have the right ambitions and a healthy understanding of the need to be data-driven: with 74% of respondents stating that data is a key priority or core to the business model.

However, it seems that not all organisations yet understand the right way to realise those ambitions. It is notable that the CIO is most commonly cited as being accountable for data strategy when the majority of the challenges highlighted in the survey are business-related: governance and ownership (24%); the lack of a data operating model (19%) and regulatory compliance issues (19%). Instead, they demand a change of mindset and approach across the business; a much more complex challenge than simply collecting data and making it available.

50% of respondents stated they are widely using data warehousing and BI tools, which is not surprising since these are technology-led. However, only 10% are using advanced analytics such as machine learning or big data

> *The vast bulk of all companies today will fail if they can't get a handle on what they are doing with the data within their organizations.*
>
> Forbes.com *'Why Most Digital Transformations Will Fail'*

capabilities in production environments as these are more business-led. Organisations are still mainly focusing on getting the basics right; understanding approaches to the data that they have, and how to make the best use of it.

Ambition does exist to innovate, with over 32% of businesses trialling ML, AI, natural language processing (NLP), and/or automation capabilities, which is higher than the percentage of respondents who are merely collecting data in a data warehouse or data lake.

Whilst there are some organisations out there mining the maximum value from their data, including customer data, this is not yet the norm. There remains a potential disconnect with understanding the full benefits of a data-led strategy, which makes good use of opportunities such as advanced analytics. Too much emphasis is being placed on speed, cost, and competition, with too little consideration of data's underlying value, the insights it offers, or decision-makers' ability to develop new products and services from those learnings. Just 21% cited improved customer insights, 18% mentioned identifying new business models, and 14% opportunities for new products and services.

It is perhaps surprising that only 16% of respondents state that a lack of expertise and skills is a major obstacle. Today, organisations rely strongly on a range of expertise sources, and this will still be the case over the next few years. Whilst we are seeing companies investing in foundational skills and looking to move these skills in-house and introduce new roles, third parties and external contractors will play a key role in enabling and supplementing these organisations too.

Overall, it is clear that organisations are missing opportunities to be empowered by great use of data. Quantitative product development, predictive customer insights, intelligent automation and a singular focus on value-added activities are some of the prizes for the data-focused analytic organisation, but they are not registering on the priority lists.

This shows that the research published by DATAVLT*, published over a year ago, is still valid. "Only 1% of the data companies collect and store is ever analyzed. This… will cause as much as 96% that exist today to fail in 10 years." We give our recommendations on how to avoid this fate.

*DATAVLT, 'Datavlt research shows that 96% of today's companies won't be here in 10 years'

FOREWORD ⊙

By **Hanna Hennig**, Global CIO, Siemens

> In the digital world there is increasing pressure on IT leaders to add value to business operations, customer experience and product development through the use of technology and data.

For IT leaders to be successful doing this there needs to be a balance of ownership and accountability across the Management Board and a recognition that bigger success will come from collaboration. It is important that the technology and data strategy for moving towards being an Intelligent Enterprise is an integral part of the broader business strategy and is communicated and adopted at all levels.

Within IT we also need to address the approach taken to manage data alongside the investments being made in big data, machine learning, automation and AI. Excellence in the basics of data management and change management is critical for ensuring improvements in data quality and data literacy to meet business aspirations.

The ability for leaders of a business to implement sustainable data management capabilities across the organisation, and fully exploit investments in advanced analytics in a controlled and cost-effective way, will be a key differentiator.

INTRODUCTION ⊙

The use of data and analytics as an enabler for driving value across business is the basis for many of the controls and decisions made in most organisations. However, through technological advances such as machine learning, AI. and natural language processing, the focus on data and analytics as a competitive differentiator is greater than ever.

Digital transformation, social and mobile technology innovation, and the changing expectations of customers when accessing products and services through multiple channels are further underlining the importance of the use of data and data services. Data joins together the processes and applications a business uses to deliver an integrated and simple customer experience that addresses these expectations.

The response across industry has been a shift in IT budget allocation to invest in emerging technologies and capabilities and find ways to deploy them to take advantage of the vast volumes of data now readily available. Quite often the approach has been to employ a Chief Data Officer, create a data organisation with data scientists and investment in advanced analytic capabilities.

The ambition to use data and analytics is the right one to have and, for those that have managed to invest and deliver these capabilities robustly, the benefits are clear to see. However, for many the journey so far has been very different and the return on the investment is not as great as anticipated. Looking into the reasons for this there are some common trends that need to be addressed.

It's important to view data as a valuable asset, invest in it the same way you would other assets and innovate with the use of data where there is a clear commercial benefit for doing so. Many investments in data and analytics have been started from a technology perspective with little or no alignment to business value or desired outcomes that can be measured against a defined business strategy.

Furthermore, due to the technology-led nature of these investments, there is often little consideration as to how the use of analytics will be sustained as an integral part of a changing operating model or updated set of business processes. The lessons learned from years of technology transformation need to be applied and equal focus needs to be given to skilling the business to use the output from advanced analytics, improving data literacy and thinking about the data lifecycle in a similar way to other tangible assets.

This survey has been designed to provide some insight into the current thinking around how businesses are approaching the challenge of exploiting and monetising data for business value and also provides some guidance on how to approach building a sustainable data and analytics capability.

COEUS ADVICE

DEFINING THE VALUE OF DATA

Gartner defines data monetisation as "using data for quantifiable economic benefit". They go on to state, amongst other things, that this includes "measurable business performance improvements, information bartering, information-based product offerings or selling data outright".

This is a great definition as it simply explains the things we already use data for in the day to day running of our businesses. We create economic benefit by increasing our revenues, optimising our costs, improving time to market for new products. We plan, forecast, produce performance analysis and management reporting to deliver business and shareholder expectations.

Data monetisation is not a new concept; it's a necessity for a successful business.

What is new however, is that in the age of the digital consumer and the connected world, getting it right or wrong can have far bigger benefits or consequences.

View the Coeus Playbook *'Are you charting the right course to monetise your data?'*

DON'T BELIEVE THE HYPE ⊙

From our survey it is clear most organisations have a healthy understanding of the criticality of data, but fewer organisations are investing resources into driving data discovery, proving use cases for advanced analytics and organising themselves to take advantage of data and analytics for commercial benefit. There is increasing awareness of the power and importance of data with 74% of respondents stating that data is a key priority or core to the business model. This is not surprising due to the trend towards digital and personal business and the changing expectations of customers through digital channels.

For those organisations investing in data assets the benefits are beginning to be realised. Over one third of respondents stated they have a seamless view of the enterprise data estate, which is encouraging. Furthermore, nearly half of the respondents have enterprise level visibility and controls in place, which indicates a co-ordinated approach to data management and a considered approach to unlocking value.
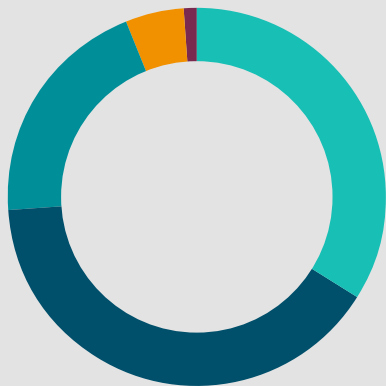
Fig. 2: How well do you think your organisation understands the data that it holds?

- **34%** - We have a centralised and seamless view of our entire enterprise data estate
- **48%** - We have departmental data silos but have enterprise level visibility and controls
- **13%** - We have departmental data silos with no enterprise level visibility or controls
- **5%** - Our data is extremely fragmented with widespread duplication and no unified view or controls

Fig. 1: Which statement best reflects your organisation's attitude to data?

- **34%** - It's core to our business model
- **40%** - Our data is a key priority
- **20%** - Our data is important, but not critical to our overall business strategy
- **5%** - Our data falls a long way down on our list of business priorities
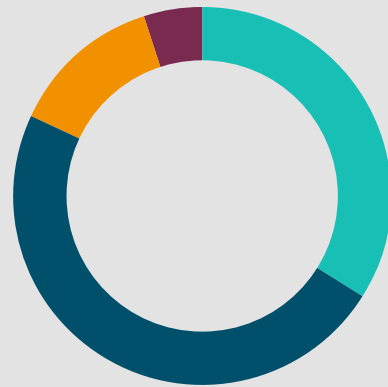- **1%** - Data isn't even on our radar

When considering over 50% of respondents stated they are widely using data warehousing and BI tools yet only around 10% of respondents are using advanced analytics such as machine learning or big data capabilities, this makes sense as organisations are still trying to understand their data and how to make the best use of it.

This maturity can be further underlined by how organisations are approaching data management. There still seems to be a traditional IT-centric approach being employed with one-third of businesses – the biggest grouping – having the IT director or overall head of IT in charge of data strategy, with a further 26% of respondents citing the Chief Technology Officer. This may suggest a greater focus on data management and supporting infrastructures than on unlocking business value – unless the IT leader has the right strategic business and support outlook.

Fig. 3: Who has overall accountability for your organisation's data strategy?

IT Director/Overall Head of IT	33%
Chief Information Officer	30%
Chief Data Officer/Senior Data Leader	27%
Chief Technology Officer	26%
Chief Executive Officer	20%
Data architect/engineer	20%
Chief Operating Officer	19%
Head of Digital/Innovation	16%
Chief Marketing Officer	15%
Head of Business Unit	9%
Don't know	7%
No one	4%
Other	2%

[Please tick all that apply]
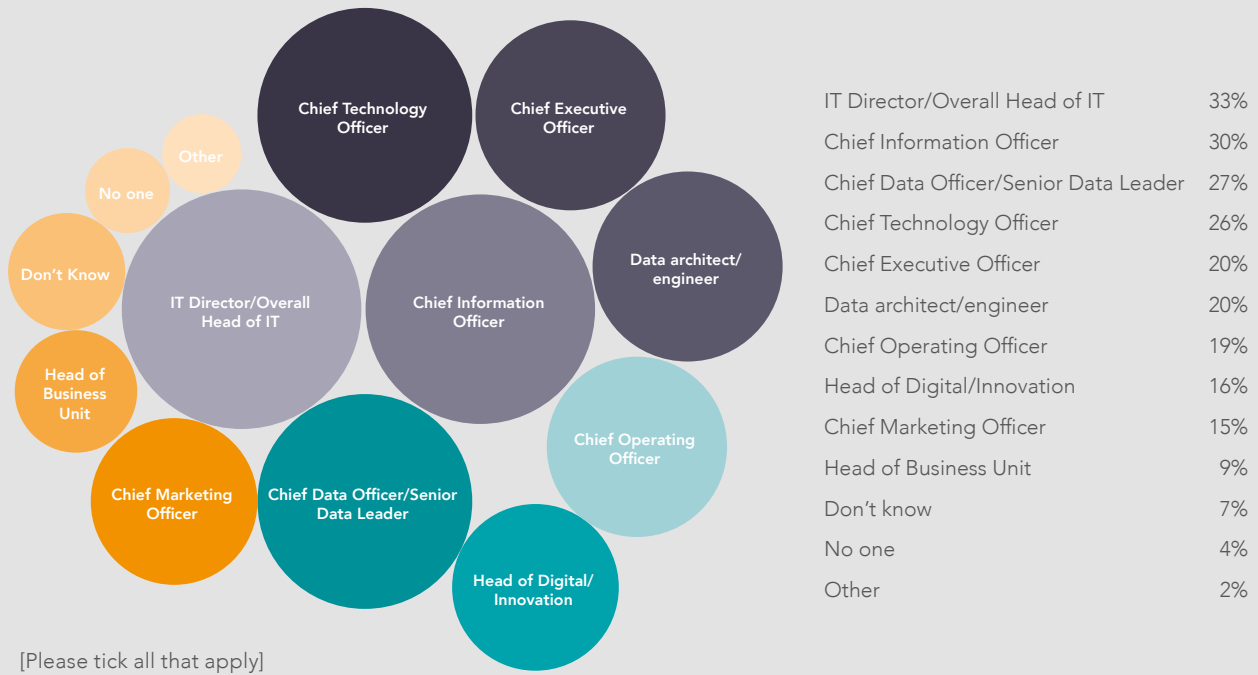
Organisations clearly recognise data as an important differentiator, but it is often viewed as an IT challenge at the most senior level. Therefore, there is a risk traditional thinking is still being applied to monetising data or the use cases for exploiting data are not being defined well enough; alignment to business imperatives and outcomes may be missing.

COEUS ADVICE

INCLUDE DATA AS AN INTEGRAL PART OF YOUR BUSINESS STRATEGY AND OPERATING MODEL

The ability to seamlessly integrate data and analytics into standard business and IT operations will be a key differentiator in unlocking the value in your data and information. In order to do this, it is important to create a data strategy that aligns to your business strategy, positions data as a strategic asset, and makes use of the resources available to integrate data management and analytics effectively.

To succeed there needs to be a clearly defined governance model, integration to existing processes used for the development of products, services and technologies and, more importantly, key responsibilities assigned to the appropriate roles at the senior levels of the organisation to drive the activity across the organisation to deliver return on the investment.

THE RIGHT AMBITIONS ❯

Fig. 4: To what extent do you use the following as a part of your data strategy?

	Widely used now	Rolling out	Incubating/trialling	In plan	No plan
Office Tools	5%	15%	19%	29%	32%
Data Warehouse	8%	22%	17%	24%	30%
Business Intelligence	6%	14%	18%	36%	26%
Development & Scripts	7%	20%	23%	27%	24%
Data Visualisation	9%	19%	24%	27%	21%
Open Source Tools	18%	19%	23%	24%	15%
Big Data Tools	14%	19%	31%	23%	12%
Machine Learning & Natural Language Processing	21%	23%	33%	13%	11%
Data Lakes	22%	24%	22%	23%	9%
Elastic Search Tools	27%	22%	27%	16%	9%
AI & Automation	13%	24%	33%	22%	8%

● Widely used now ● Rolling out ● Incubating/trialling ● In plan ● No plan

It is clear from the survey results that most organisations are beginning to organise to exploit data and analytics. There is a growing trend to incubate and deploy advanced analytics, perhaps driven by the perception that most businesses are already using these capabilities in anger.

Over 32% of businesses are actively developing ML, AI, natural language processing (NLP), and/or automation capabilities, which is higher than the percentage of respondents who are merely collecting data in a data warehouse or data lake. Those looking to invest in advanced analytics would be wise to ensure strong foundational capabilities in more traditional technologies too.

Furthermore, when looking at the future ambition and where the most investment will be made in the next

3 years, the results show a mix between established capabilities such as BI and Data Visualisation and advanced capabilities such as Machine Learning and AI. It is interesting to see that methods to contextualise and access data, such as building a data warehouse or data lake come much lower down the ranking, suggesting that a lot of organisations have either completed these activities or are not placing enough importance on them.

This seems contradictory to the results from the previous table where it seems that just over 50% of respondents are rolling out or have a data warehouse and only 31% a data lake. This poses some interesting questions that need to be asked around the motivations for this type of investment pattern. It seems as if there is a desire to deploy newer technologies and capabilities, but it is unclear whether or not the ambition to do this matches

the reality of being able to support and sustain such an approach. A possible conclusion for this could be the perception mentioned earlier that most organisations are more advanced than they really are and that everybody is playing catch-up to varying degrees.

If we take a look at some of the motivations behind the investment patterns it is also clear that there is still a traditional mindset when it comes to building the investment case. Organisations want to streamline data analysis, possibly putting it in front of more individuals within the business, using advanced analytics insights to make data intelligence more accessible.

The survey reveals the emphasis may be being placed on speed, cost, and competition in many organisations, with too little consideration of data's underlying value, the insights it offers, or decision-makers' ability to develop new products and services from those learnings. Just 21% cited improved customer insights, 18% mentioned identifying new business models, and 14% opportunities for new products and services – with the latter being significantly fewer than the number who selected 'approach to risk' (19%), 'technology upgrades' (16%), and 'improved working environment' (16%).

1 Business Intelligence	4 Data Visualisation	7 Office Tools	8 Data Warehouse
2 AI & Automation	5 Development & Scripts	9 Open Source Tools	11 Elastic Search Tools
3 Machine Learning & Natural Language Processing	6 Big Data Tools	10 Data Lakes	

Fig.5: Where will you be investing most over the next 3 years? [Rank your top 5]

COEUS ADVICE

FOCUS ON GETTING FOUNDATIONAL DATA MANAGEMENT CAPABILITIES ESTABLISHED

Getting the basics of data management in place and operating effectively will support data and information innovation and improve speed to market for these services. Coeus have a Data Capability framework and maturity assessment based on the best elements of industry standards such as DAMA-DMBOK and CMMI-DCMM to help benchmark and plan for getting the core data management capabilities established that will support unlocking value and data monetisation.

It's important to remember that the approach and methods an organisation uses is equally important as the capabilities and organisation, but often these are not given the priority they need.

This poses some interesting questions that need to be asked around the motivations for this type of investment pattern. It seems as if there is a desire to deploy newer technologies and capabilities, but it is unclear whether or not the ambition to do this matches the reality of being able to support and sustain such an approach. A possible conclusion for this could be the perception mentioned earlier that most organisations are more advanced than they really are and that everybody is playing catch-up to varying degrees.

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Just 21% cited improved customer insights, 18% mentioned identifying new business models, and 14% opportunities for new products and services – with the latter being significantly fewer than the number who selected 'approach to risk' (19%), 'technology upgrades' (16%), and 'improved working environment' (16%). Just 12% identified attracting new customers as a core motivation – the least favoured option on the list, and yet surely one of the most important in markets that are becoming hyper-competitive. Nearly every type of business is being disrupted by new players and a lack of customer loyalty, especially on new digital channels, so investing in customer insights and

COEUS ADVICE
FOCUS ON UNDERSTANDING YOUR DATA VALUE POTENTIAL AS EARLY AS YOU CAN

A 2-speed approach is key to ensuring the valuable information and insights are discovered and used in the right context for customer engagement, revenue growth, margin growth, product development and market disruption. Use the approach whilst setting up the operating model and data management basics up to ensure that the investment and approach taken is sustainable and delivers the expected returns.

Done properly and in an appropriate sequence, the benefits of getting advanced analytics initiatives in training can be significant in helping define the approach and structure of the entire data strategy and capability framework.

new product development ought to be a higher strategic priority than simply consolidating a market position.

The results suggest that many organisations are falling into the trap of limiting themselves to using data to improve existing business models and processes, stopping short of looking to what new territory advanced data analytics can open up. This can be further supported by the fact that in nearly three-quarters of cases (72%), data analysts work within departmental teams, while only 54% report data analysts working in a centralised team (respondents could select more than one option).

Fig. 6: What are your main motivations when it comes to shaping your organisation's data strategy?

| Motivation	%
Speed/confidence of decision making	32%
Competitive advantage	30%
Reduced cost through efficency/automation	28%
Company reputation	28%
Customer insights	21%
Revenue and profits	19%
Approach to risk	19%
New business models	18%
Technology upgrades	16%
Improved working environment	16%
New products	14%
We felt we needed one	14%
Attracting talent	11%
Attracting new customers	11%
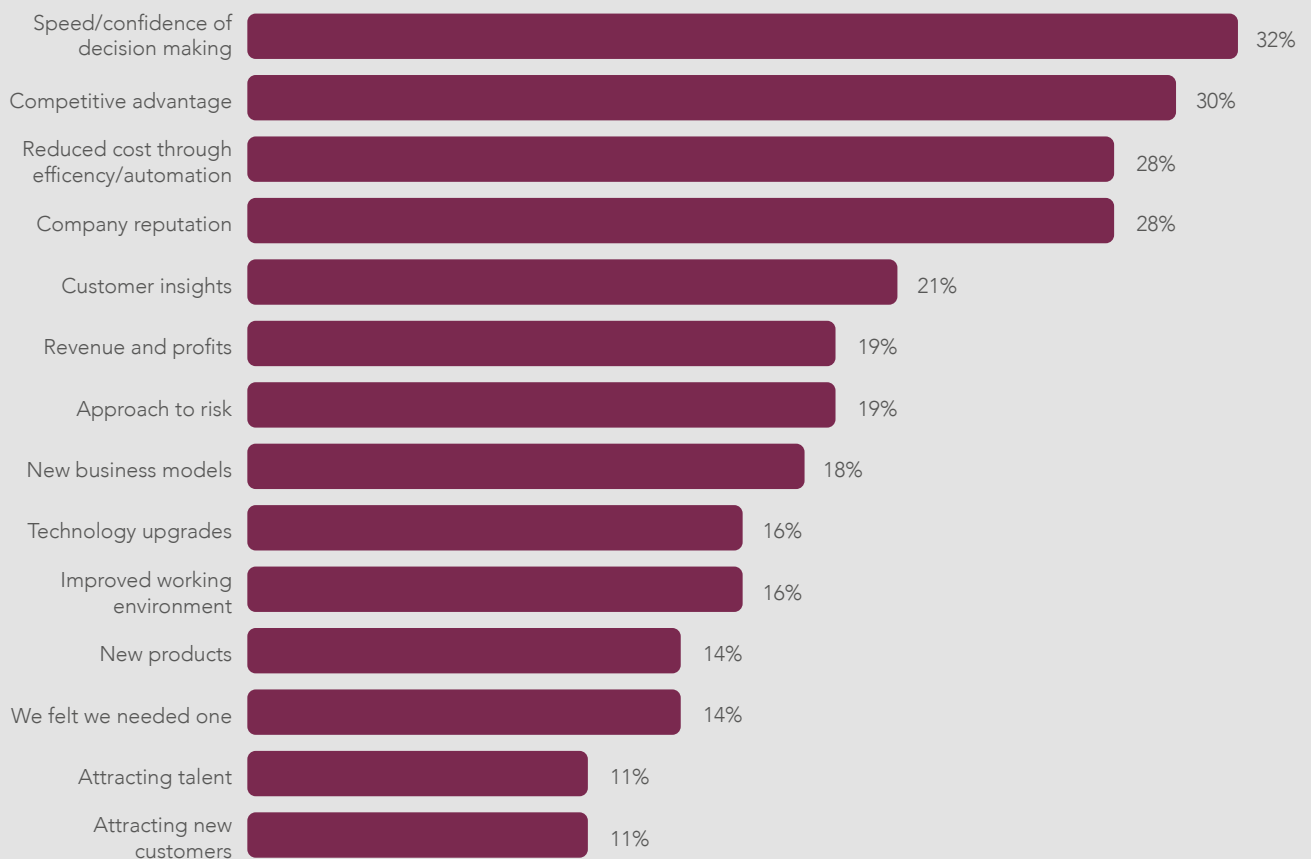
IT MAY BE WISE TO NOT START BUILDING A DEDICATED DATA ORGANISATION

Data should be considered as an integral part of the business target operating model but you need to think very carefully as to whether there needs to be a separate function to control and develop the capabilities. If you have an opportunity to embed it across the organisation with appropriate responsibilities being undertaken you potentially deliver value quicker.

There also needs to be consideration given to the sourcing strategy for data and analytics skills and capabilities that are required. The hype cycle for advanced analytics is having a material impact in today's marketplace and driving up the cost of core and advanced skills which can be a major contributor to success or failure of data related programs.

Fig. 7: Who analyses your organisation's data?
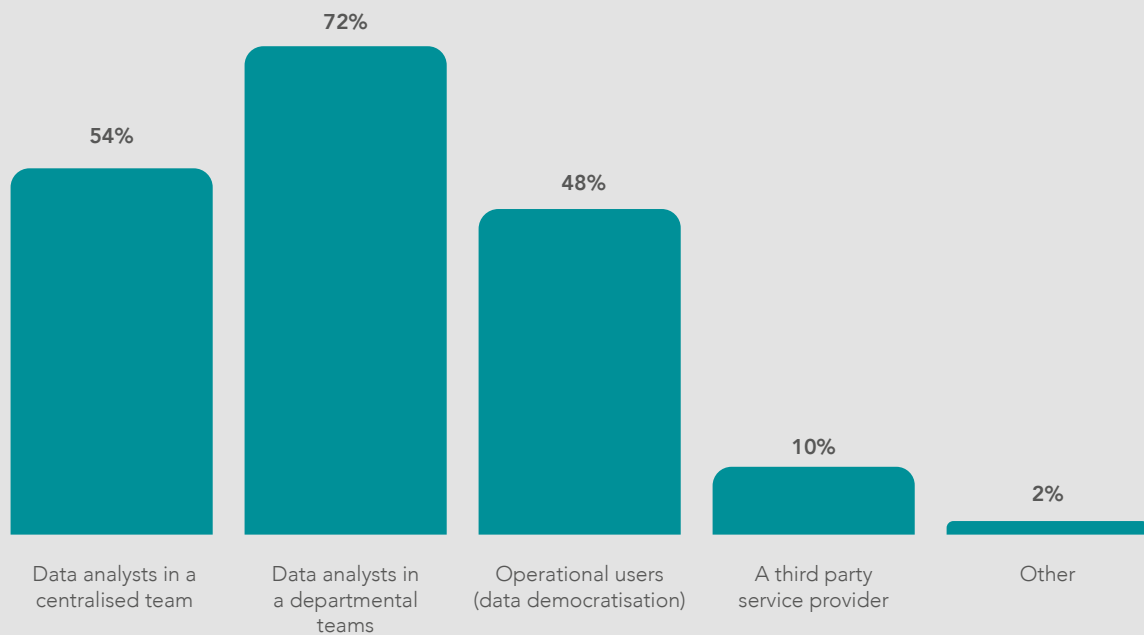
One of the major benefits of investing properly in data management capabilities is the ability to look across an entire organisation using contextually correct data, join processes and parts of the organisation together and create an enterprise view of performance and operations but in 48% of enterprises data democratisation is king, with analysis taking place among operational users. Meanwhile, 10% of those surveyed push analysis outside of the organisation completely to a third-party service provider.

This suggests a lack of consistency and consensus in how to integrate data capabilities into the operating model, also evidenced by uncertainty in who should lead, and where teams should sit.

Some organisations are taking a hybrid approach of one kind or another. We expect this to increase over the next few years, as organisations' data strategies mature.

THE GAP TO ACHIEVING

Fig. 8: Where are you seeing the most benefit out of your data initiatives?

Category	%
Improved customer insights	43%
Improved ability to take productive, predictive decisions	41%
Improved reporting	41%
Improved management of risk/regulatory compliance	37%
Improved performance tracking	29%
Improved ability to meet customer needs	24%
Better able to spot future business oppertunities	20%
Sale of data assets	14%
Increased sales	12%
Don't know	2%
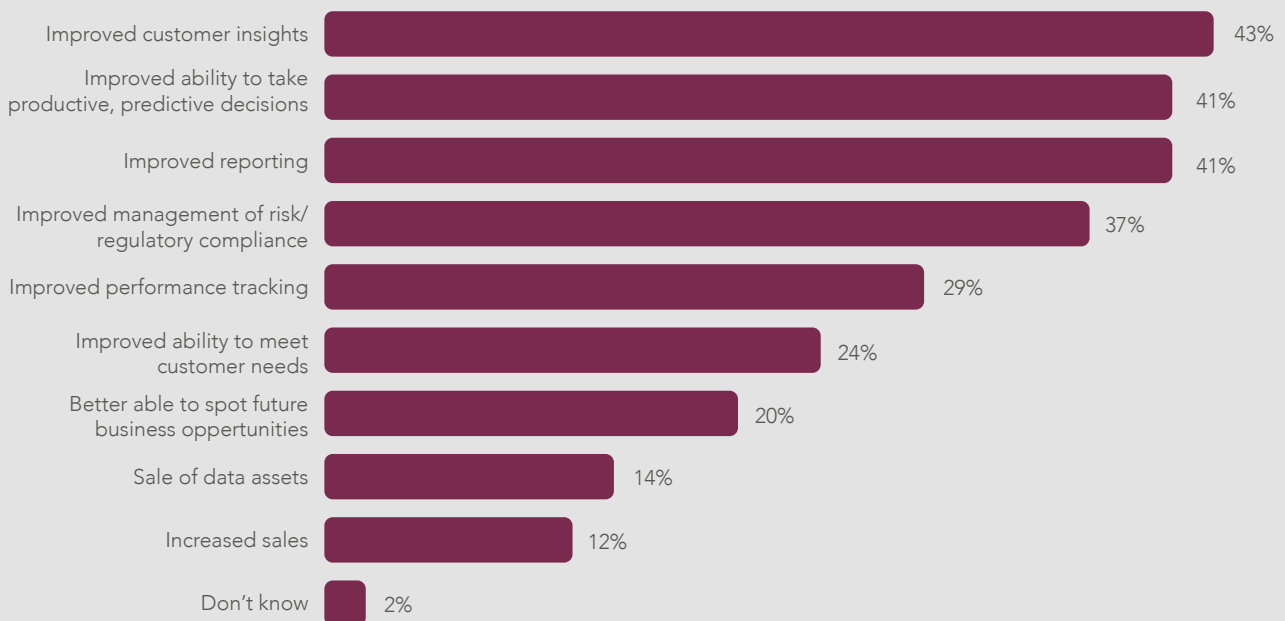
Despite the ambition from most organisations to exploit value and insights from data, there are still some barriers that need to be broken down and capabilities that need to be built in order for most to achieve their data objectives. Key challenges are being recognised as scale and complexity of data, lack of alignment between business and data strategy, regulatory and compliance concerns following the introduction of legislation such as GDPR and the talent pool required. It's notable that these challenges are not really about the technologies, but point to an ability to get approaches right.

When asked where organisations are seeing the biggest benefits from their data initiatives, 43% of respondents said they are in 'improved customer insights', while 41% identified an improved ability to take proactive, predictive decisions.

'Improved reporting' also scored highly, along with better management of risk and regulatory compliance (37%). However, only 24% cited an increased ability to meet customer needs, with 20% citing a greater ability to spot future business opportunities.

Contrast this with where the real business benefits are being seen – such as customer insights, business model opportunities, proactive decision making and improved customer engagement and personalisation – and the implication is that many businesses are not being ambitious enough or are failing to see the strategic value of their data assets upfront. This suggests a missed opportunity, a fact that is also supported by respondents stating the key drivers to invest in data management are speed of decision-making, competitive advantage, cost reductions, or efficiency and automation. Customer insight, business model change and product development have half the level of responses.

Some of this could also be due to the fact that as stated earlier, analytic skills are often siloed whereas true value opportunities, for the most part, spans departments processes across an entire organisation.

This lack of ambition could also be linked to the perception that working with the large and complex data sets and implementing advanced analytics is too much effort, too costly and potentially too risky if regulation such as GDPR is considered. The top five enterprise data bugbears are the scale and complexity of data sets (cited by 27% of respondents); governance and ownership (24%); the lack of a data operating model (19%); regulatory compliance issues (19%); and difficulty in integrating new technologies.

COEUS ADVICE

USE THE KNOWLEDGE YOU HAVE TO KICKSTART YOUR JOURNEY

Creating and maintaining a data lifecycle and mapping this lifecycle to the processes and capabilities used across an organisation can have a significant impact in moving a business to become data driven and intelligent. Understanding the context and outcomes of your data initiatives is just as important as building the solutions themselves, and can be achieved with existing, knowledgeable analysis resources.

Creating data journeys by using a data service blueprint over your customer journeys is a simple and effective way of mapping and understanding dependencies between the things you are doing to drive value and how your data supports and enables the value to be realised.

Fig. 9: What are the main obstacles to successfully creating and implementing your data strategy?

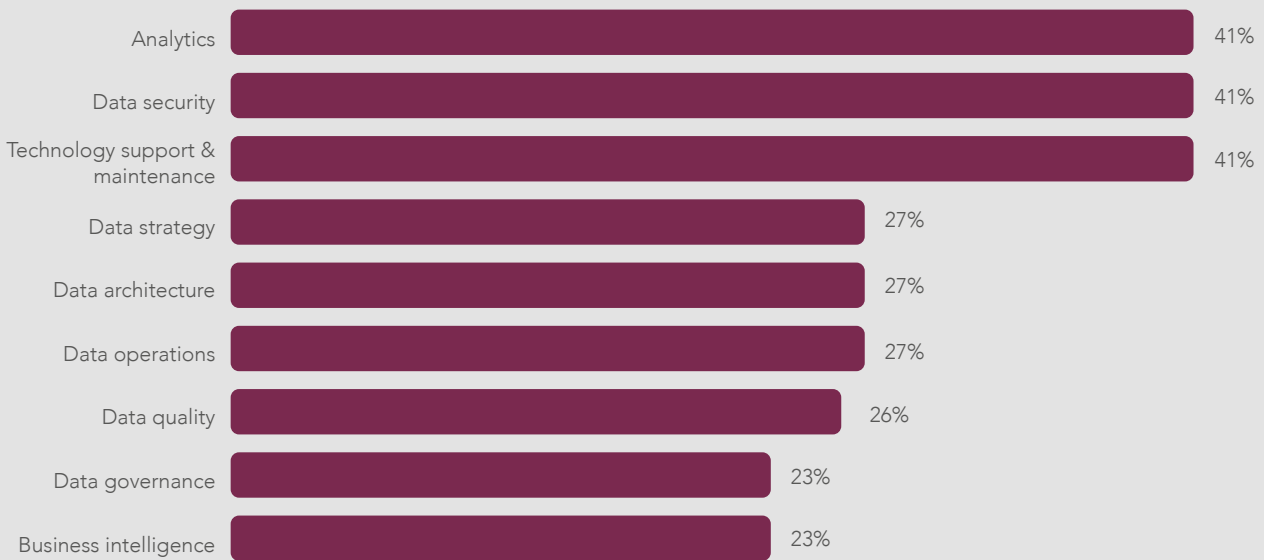| Obstacle	%
The scale and complexity of data-sets	27%
Governance and ownership	24%
Lack of data operating model	19%
Regulatory and compliance	19%
Difficulty integrating new technology	17%
Lack of expertise & skills	16%
Poor data quality	16%
Security	16%
Building a business case	14%
Cost of implementation	13%
Internal cultural resistance	12%
Scaling from proof of concept	12%
Technology falling short	12%
Public and customer perception	12%
Don't have the bandwidth	11%
Board-level resistance	10%
Poor data accessibilty	9%
Identifiying possible applications	7%
Ethics	5%
Other	3%

Despite recognition of the barriers not being technology, the challenge is too often passed to IT to solve. As we have seen from the governance and ownership responses, data is too often treated as an IT challenge with over 65% of respondents stating that IT leadership has overall data accountability when it should be seen as offering C-level business insights. This may suggest that many organisations are looking at data tactically rather than strategically which leads to a focus on the technology enablement rather than the value proposition. This needs urgent redress if those organisations are to unlock real business advantage from their data, with a review and challenge of traditional operating models.

All organisations are facing a tougher regulatory environment too, both in specific industries and generally in terms of data privacy, security, and protection. Not only that, but many customers are concerned about widespread media reports of stolen data, information misuse, unethical deployments of AI, or bias in data sets leading to discrimination and exclusion. These have obvious implications for data management, analysis, and technology buying decisions – not to mention the risk of reputational and financial repercussions. Asked to express their concerns about data regulations, compliance with ethical and moral requirements was the biggest, cited by 49% of respondents.

Nearly as many are worried about the lack of a cohesive and holistic approach to compliance among different departments – potentially a by-product of fragmented systems and a lack of data insights. This seems to contradict the fact that data democratisation is common, perhaps suggesting the lack of a coordinated strategy and approach. 44% singled out the risk of fines and financial penalties. Just under 40% expressed worries about their customers, while 37% said that they 'spent too much time' keeping up with the constantly shifting regulatory landscape. 7% claimed to have no concerns at all about compliance.

Fig. 10: In which areas do you use third party suppliers to unlock the value from data?

Area	Percentage
Analytics	41%
Data security	41%
Technology support & maintenance	41%
Data strategy	27%
Data architecture	27%
Data operations	27%
Data quality	26%
Data governance	23%
Business intelligence	23%

16% of respondents state that a lack of expertise and skills is a major obstacle. Today, organisations rely strongly on a range of expertise sources, and this will still be the case over the next few years. Whilst we are seeing companies investing in foundational skills and looking to move these skills in-house and introduce new roles, third parties and external contractors will play a key role in enabling and supplementing these organisations too.

Investing in in-house expertise is looking to be a forced decision as the demand for data and analytic related skills has exploded over the last 3 years but the number of skilled resources has not grown as rapidly. Furthermore, the skills that do exist are moving into the contract market for increased compensation to take advantage of the current conditions.

Among enterprises that are bringing expert third-party suppliers onboard to help unlock the business value of their data, the big three areas are analytics, data security, and technology support and maintenance – all on 41% of responses. The next block consists of data strategy, architecture, and operations, all on 27% of respondents who said they use a third-party. Data quality, governance, and BI bring up the rear. External technology skills are most sought after here, but third-party strategy and regulatory expertise is still key for many.

COEUS ADVICE

INNOVATION ISN'T ALWAYS HARD TO ACHIEVE

Technology advances such as data virtualisation tools can be a valuable approach to discovering, modelling and unlocking potential value across data siloes. Rather than using these tools to avoid the cost of building a data warehouse or data lake, consider using them as design tools in conjunction with your data science initiatives to get ahead of the data collection, preparation and presentation activities speeding up the time to value.

COEUS ADVICE
THINK BIG. START SMALL. SCALE FAST.

Try assembling a small team with the basic skills to tackle a known, prioritised business challenge and give them the autonomy to innovate and prove where value can be taken. Develop supporting and advanced skills as you go and build this approach into the fabric of not just the skills and organisation but a documented data lifecycle.

With the right vision, strategy and guiding principles, the necessary capabilities and methods can be developed iteratively by taking advantage of existing, established processes such as embedding data and analytics controls throughout the software development lifecycle (SDLC) or by enhancing all customer journey mapping and UX design activities to include data journeys.

The survey serves as a useful primer for businesses like ours that know we have valuable data assets to exploit, but may struggle to get rapid ROI from sophisticated tooling. It is encouraging to hear that others are succeeding with pragmatic data management approaches similar to our own.

Phil Brown, Group IT Director, Amey

IT BUDGETS

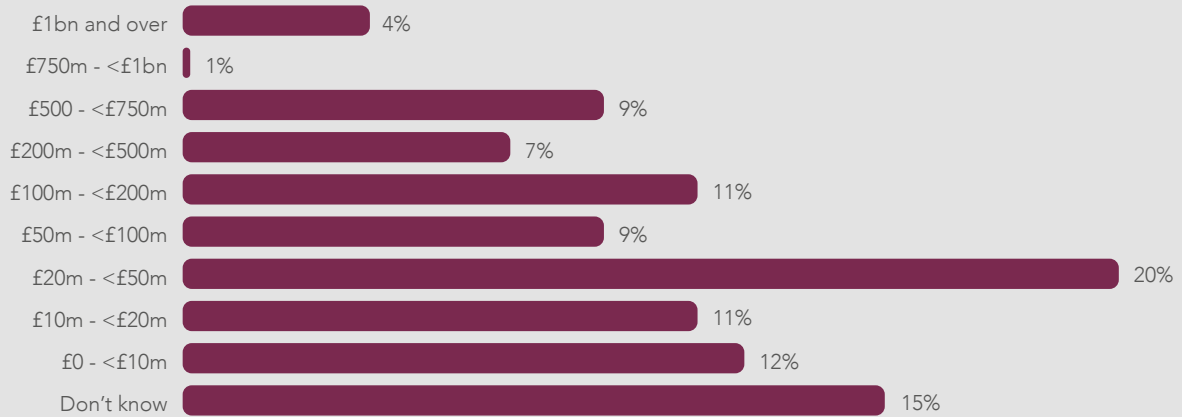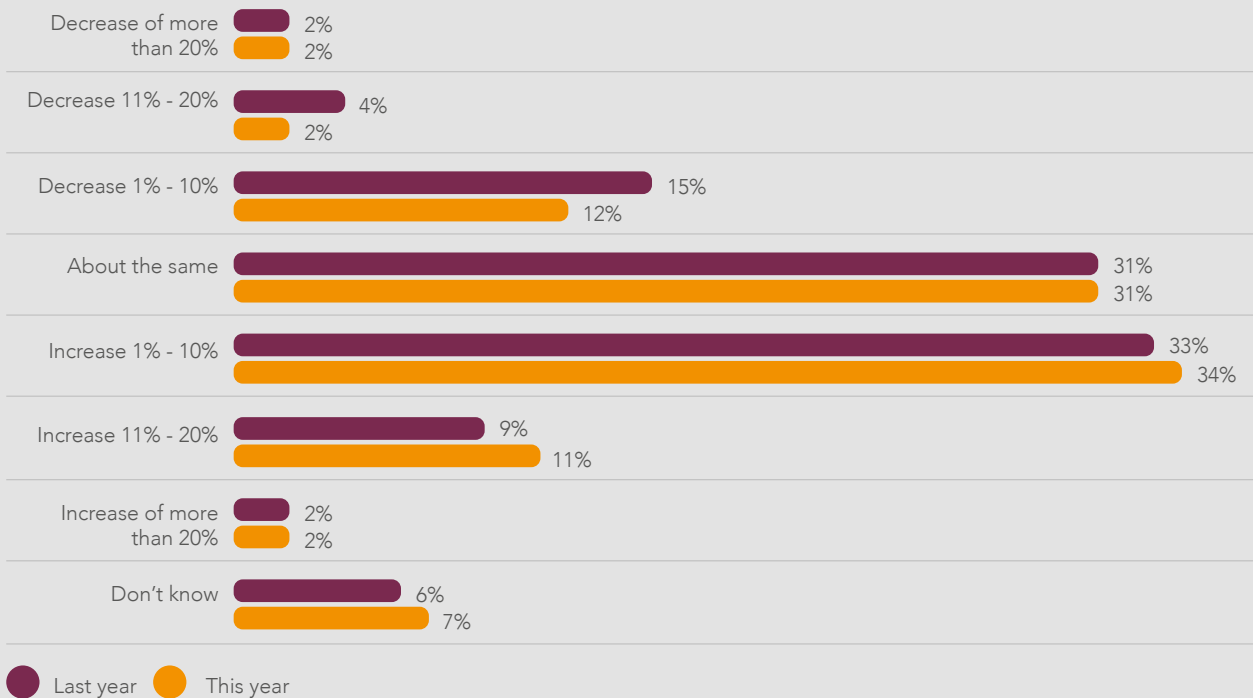**Fig. 11:** What is your organisation's IT budget?

£1bn and over	4%
£750m - <£1bn	1%
£500 - <£750m	9%
£200m - <£500m	7%
£100m - <£200m	11%
£50m - <£100m	9%
£20m - <£50m	20%
£10m - <£20m	11%
£0 - <£10m	12%
Don't know	15%

Fig. 12: How is yout IT budget changing?

	Last year	This year
Decrease of more than 20%	2%	2%
Decrease 11% - 20%	4%	2%
Decrease 1% - 10%	15%	12%
About the same	31%	31%
Increase 1% - 10%	33%	34%
Increase 11% - 20%	9%	11%
Increase of more than 20%	2%	2%
Don't know	6%	7%

● Last year ● This year

As with all our previous CIO and IT Leadership Surveys, one of the trends we track is IT budgets. While, on average, organisations are seeing an annual IT budget increase of up to 10%, a significant minority of businesses (around one in five) are facing budget cuts. This is despite the rising demands, and opportunities, faced by technology teams today. Automation and other efficiencies may take up some of the slack, but companies would be wise to think about the long-term implications of making cuts in these areas. If data strategy is as central to respondents' business models as they're making out, their organisations' futures will be dependent upon healthy technology investment.

IT'S NOT ABOUT THE TECHNOLOGY!

Organisations should think big, start small, scale fast, and focus on getting strategy, governance, and repeatable approaches right. Moreover, they should leverage skills and technology that are already in place (whether internal or external) rather than pursue a tactical, technology-driven approach.

Much of the technology we associate with effective use of data is still in its infancy in a lot of organisations, either still in the planning stage, being trialled, or still be rolled out – not only things like automation and machine learning, but also foundational infrastructure and more traditional tools. The leading challenge – the scale and complexity of data-sets – is partly a technology issue, but most of the other high-ranking issues are strategy, regulatory, and people focused, so major obstacles remain. Yet, overall, it is clear that organisations are being empowered by the knowledge provided by their data initiatives. Improved reporting, improved performance tracking, improved ability to take proactive, predictive decisions, and improved customer insights: that is the big prize for the data-focused organisation.

Data complexity, data governance, operating model and regulatory compliance are the biggest barriers to implementing a data strategy, according to our research. This is backed up by softer constraints, such as an inconsistent approach or worries over ethical usage and a conservative approach to compliance slowing

data strategy implementation. Most analysis occurs in departmental or operational teams, but there is a trend of over 54% of businesses also having a central capability, suggesting the federated model is becoming the most popular. Arguably, this corresponds to desktop productivity tools (such as Office) still being the leader in the data world.

The federated use of data suggests that most businesses can extract a huge amount of value from their data – if the basics around access, context, and data literacy are resolved without having to invest too much money in the latest 'must have' or hyped technologies. At the same time, the marked trend to move skills in-house contradicts those responses which said that a lack of skills is an impediment to data strategies. Nearly 60% of respondents indicated that they will hire in next three years; clearly there is an opportunity to 'skill up' internally. Overall, there is an obvious desire to exploit data, and businesses are acknowledging its importance at a surface level. However, the basic challenges need to be overcome and there needs to be work around literacy, culture, and perception of risk. Basic data understanding and capabilities need to be developed to maximise the value from organisations' data investments. Businesses need to learn how to apply data to a business opportunity rather than from a technology perspective.

THE DATA LEADERS' STRATEGY CHECKLIST ›

1. Be obsessive about data context and identify, document and apply context to your data regardless of structure, location or origin

2. Ensure your design principles enable data to be structured in locations that support easy, shared access, processing, movement and scalability

3. Build services, processes and package data so it can be shared securely using standard rules and access policies

4. Based on value drivers move and combine data to provide a unified, cleansed, consistent and commercially viable data view – make it operationally robust

5. Establish, manage and communicate data and information policies and mechanisms for effective use, and skill consumers to exploit data value

6. Measure and monitor ROI by defining what success means to your business

› COEUS CAN HELP

Coeus Consulting empowers leaders to deliver more. We do this by standing alongside our clients to create, execute or manage tailored and strategic change, and drawing upon our truly independent and unique, hands on experience to exceed expectations.

We have developed a unique set of capabilities, approaches and diagnostics focused on identifying and exploiting value and insights from data that will help avoid the pitfalls of wasted investment, increasing operational costs and misaligned outcomes from data initiatives.

These include comprehensive operating model and data capability maturity assessments, a unique approach to mapping data journeys, and linking them to customer and colleague value journeys, a simple approach to data architecture and tool selection, and the development of data management lifecycle and capability frameworks for speed to value from your data investments.

Our value-based approach will enable sustainable, iterative development of data management capabilities and introduce practical and realistic tools to start or optimise your data journey.

Ultimately our aim will always be to facilitate business success by helping you to unlock maximum value from your data.

ABOUT THE SURVEY

This white paper was informed by a survey of 123 senior IT and data leaders, with key roles including CTO, CIO, CMO, CDO, Director or Head of: IT; IT Transformation; Innovation; Applications; Strategy; Digital; Technology Services; Infrastructure; Architecture; and other senior managers.

Roles were in enterprises operating across major UK verticals, such as manufacturing, engineering, and construction; technology, media, and communications; financial services; public services; consumer product, and retail; energy and utilities; and pharmaceuticals and healthcare.
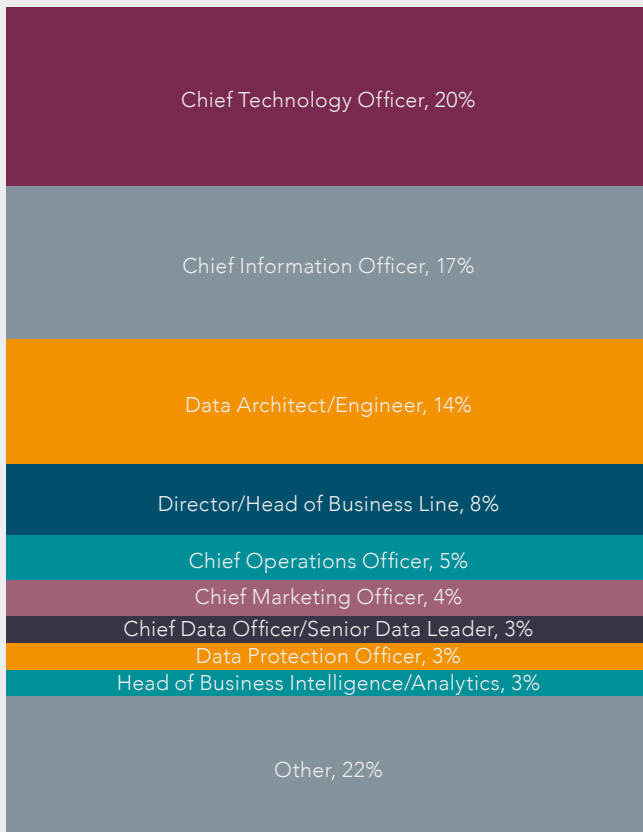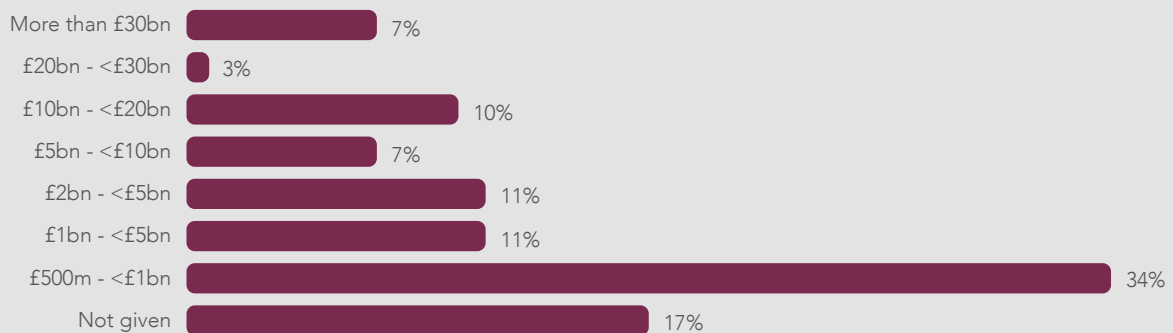
Fig. 13: What is your role?

Role	%
Chief Technology Officer	20%
Chief Information Officer	17%
Data Architect/Engineer	14%
Director/Head of Business Line	8%
Chief Operations Officer	5%
Chief Marketing Officer	4%
Chief Data Officer/Senior Data Leader	3%
Data Protection Officer	3%
Head of Business Intelligence/Analytics	3%
Other	22%

Fig. 14: What vertical sector does your organisation operate in?

Sector	%
Manufacturing, Engineering and Construction	26%
Technology, Media and Communications	22%
Financial Services	13%
Public Services	11%
Consumer Products, FMCG and Retail	9%
Energy and Utilities	7%
Pharmaceuticals and Healthcare	2%
Other	11%
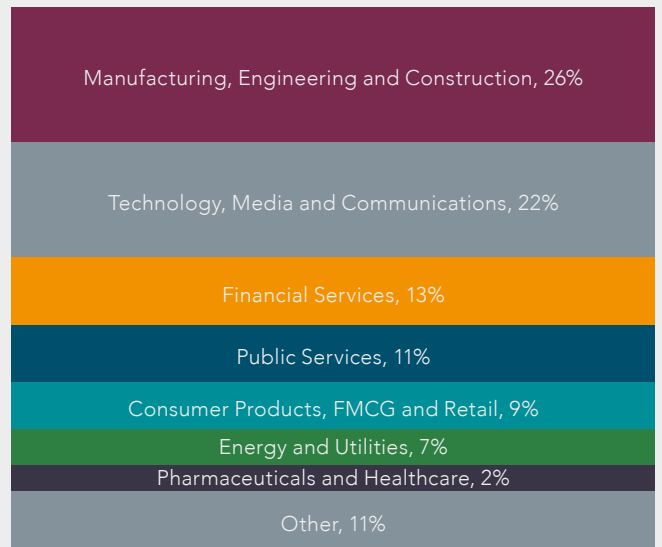
According to the survey, one-third of the organisations surveyed have revenues in the region of £500 million or less; 11% revenues of £1 billion or less; 11% £2 billion; 7% £5 billion; 10% £10 billion; 3% £20 billion; and 7% more than £30 billion.

There was a broad spread of IT budgets within the survey, despite the focus on enterprises with multi-million or multi-billion-pound revenues.

Fig. 15: What is your organisation's revenue?

Revenue	%
More than £30bn	7%
£20bn - <£30bn	3%
£10bn - <£20bn	10%
£5bn - <£10bn	7%
£2bn - <£5bn	11%
£1bn - <£5bn	11%
£500m - <£1bn	34%
Not given	17%

ABOUT COEUS CONSULTING

Coeus Consulting empowers IT leaders to deliver more. We do this by standing alongside our clients to create, execute or manage tailored and strategic change, and drawing upon our truly independent and unique experience to exceed expectations. Founded in 2013, we have offices in the UK and Germany.

OUR CAPABILITIES

Our capabilities are the application of rich and deep expertise to the three phases of the project life cycle (Strategy, Execution, and Optimisation). Based on the unique requirements of individual client engagements, we combine these capabilities to create highly tailored services.

CAPABILITES	STRATEGY	EXECUTION	OPTIMISATION
Operating model	Develop tailored IT operating model and organisational structures	Support the implementation of new operating models	Review of operating model against industry leading practises
Data & Analytics	Develop strategies to drive maximum business value from data	Lead or support data & analytics programmes and/or functions	Data audit and assessments, to support continuous improvement activity
Sourcing	Sourcing strateg to support the build vs. buy decisions	Management of competitive tender process and contract negotiations	Vendor and contract management and health checks and optimization
Commercial management	TCO review, cost optimisation strategy and commercial leading practise	Implementation of commercial strategy, governance and measures	Maturity assessment, supplier governance and consideration
Technology & architecture	Enterprise architecture and technology adoption strategies	Executions of complex programmes of technology transition and change	Maximise the value clients can draw from their technology investments
Cyber security	Establish tailored risk based client strategies towards cyber security	Deliver against cyber security strategies and remediation plans	Conduct cyber security audit and reviews, and propose improvements
Change delivery	Programme and portfolio design and governance	Management or recovery of complex change programmes and projects	Audit and health-check assessments
Services integration & operational excellence	Service strategies, design and transition strategy for future mode of operation	Implement service delivery operating model, tools and processes	Performance maturity assessments
Mergers, acquisitions & divestments	IT due dilligence and merger or divestment planning	Execution of integration or divestment plan	IT effectiveness and transformation assessments

THE AUTHORS

Ben Barry
Director

Ben has held numerous senior positions within consulting and is one of the founding Directors of Coeus. Previously Director, CIO Advisory at KPMG, and prior to that, Xantus Consulting and Capgemini, Ben has over 20 years' experience as a business and IT transformation professional. He has coached and led the leadership of many large organisations on strategy development through to transformation and benefits delivery and is a proven IT leader with an outstanding track record of delivery.

Richard Graham
Associate Director

Richard is an award-winning* advisor, who helps business and IT leaders drive strategic change using technology and data. His approach is multi-disciplinary and brings together experience from various roles held across business, IT and consulting: "Richard brings a unique approach to problem solving by applying experiences in digital transformation, strategy, operations, data modelling and sourcing." (Global Sourcing Association Council, 2018). Recent achievements include developing the technology transformation strategy and business case for a large financial services client, driving process-driven and legacy systems transformation for a household name retail and wholesale client, and supporting a global utility to contract with multiple partners to support their digital ambitions.

Global Sourcing Association (GSA) - 'Digital Champion of the Year, 2018'

Shakti Mohapatra
Principal Consultant

Shakti brings 15 years of diverse experience through his work in a number of advisory and industry leadership roles. His insights from previous roles interfacing with senior business and technology decision-makers across multiple industry verticals, provide him with a broad set of skills that are vital in driving data-driven transformation. He has helped clients embrace change to unlock long-term business benefits, underpinned by technology. He shares a deep interest in topics such as automation, machine-learning and blockchain based use-cases.

Yalini Selvarajah
Principal Consultant

Yalini has 11+ years of industry experience helping businesses achieve their goals using data. She has worked with various levels within organisations, building and implementing data strategies & roadmaps, helping them utilise & optimise their data across a range of business activities such as sales, forecasting, pricing, marketing and to support merger activity. Yalini has a keen interest in AI but is a big advocate for the fundamentals like data management and analytics.

Key contributor: **Andy Pickard, Data Practice Advisor**

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