

HOW TO MAXIMIZE THE IMPACT OF YOUR ANALYTICS

Research shows the strategic
benefits from investments in
an analytics platform



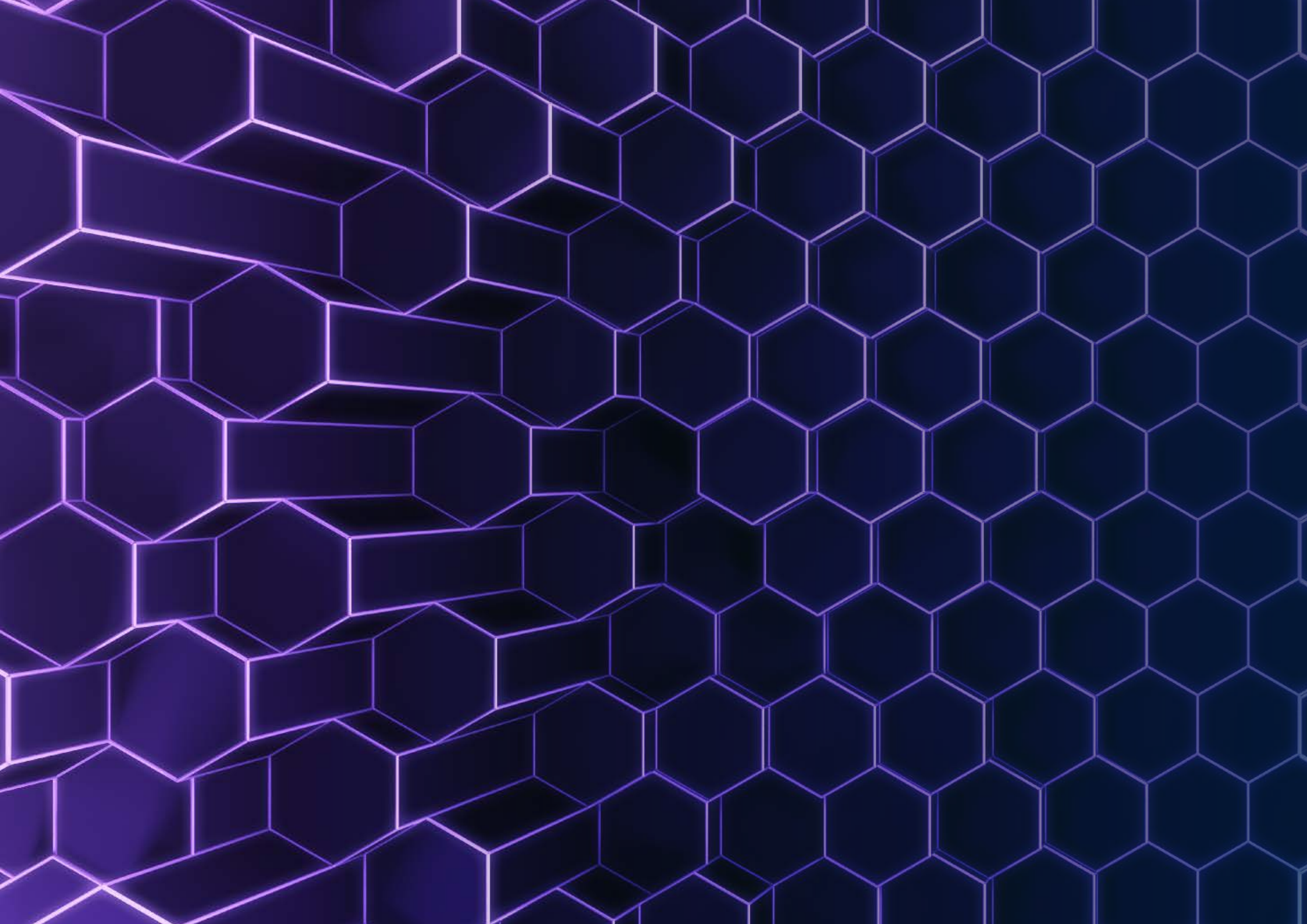




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INTRODUCTION

Welcome to the results of our study about analytics and analytics platforms. Our latest research indicates that the use of analytics continues to evolve in most organizations, and that many organizations are on the path to using analytics strategically.

More than 80 percent of interview subjects say analytics has reached the boardroom in their organizations, while just 35 percent say analytics are deployed at an enterprise scale. These two results indicate that even though most executives have bought into the use of analytics at a strategic level, the deployment of a full analytics strategy is still not underway at most organizations.

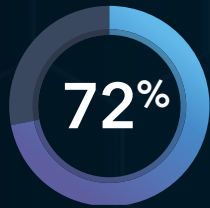
Implementing an analytics platform has shown great promise in growing the strategic value of analytics and in fostering innovation.

Respondents also indicate that an analytics platform can help with ongoing issues of integrating data and data sources throughout the organization. Other expected benefits of an analytics platform according to survey respondents, include accuracy, insights, simplification, scalability and integration.

Keep reading for more findings from our research, and take some time to consider how your organization compares to your peers.

The data and insights in this report are the result of a two-part research process. The first phase consisted of in-depth interviews with professionals in 132 business and government organizations. These discussions were based on a common set of 15 questions asked of analytics business sponsors, IT decision makers, heads of analytics and data scientists. The findings from this phase then informed the second part of our research, an online global survey that attracted 477 qualified participants who answered 26 questions.

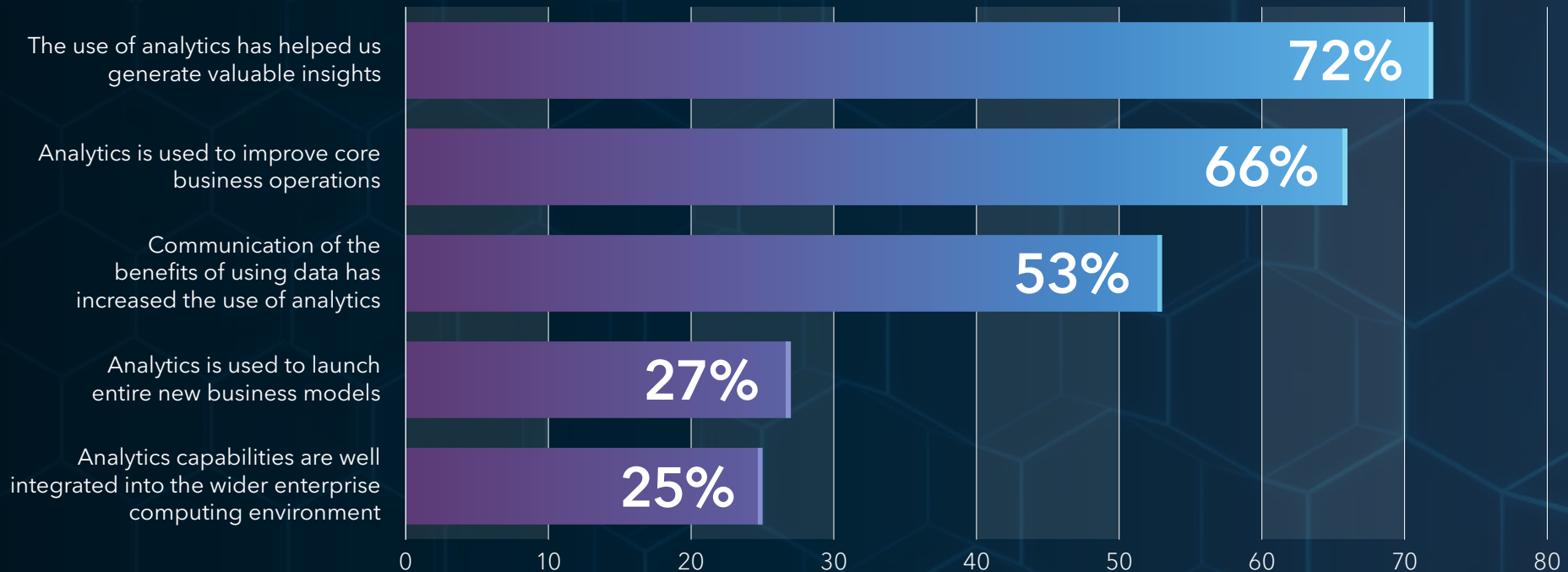
ANALYTICS IS DELIVERING STRATEGIC AND OPERATIONAL VALUE



Claim that analytics helps their organization generate valuable insight. Nearly two-thirds agree that analytics is used to improve core business operations, and half believe that communicating benefits of using data increased the use of analytics.

From your perspective, which of the following statements is true about the use of analytics in your organization?

Multiple responses allowed. Source: SAS Analytics Platform Online Survey, N=477



17%

Analytics is used in isolated cases for tactical purposes

7%

Analytics is primarily used for strategic decisions

2%

Analytics is rarely used

35%

Analytics is used across the company, but on a tactical basis for projects and other specific purposes

39%

Analytics is core to our business strategy - used in both strategic and tactical decisions throughout the organization

How would you describe the role analytics plays in how your organization conducts business?

Source: SAS Analytics Platform Online Survey, N = 477

ANALYTICS' USE AND ROLE SPANS A WIDE SPECTRUM

A compelling 98% of survey respondents said analytics plays a role in their organization, though the range of how it's deployed varies from isolated and tactical (17%) to strategically throughout the organization (39%).

Anja Stolz, Managing Director for Customer Management and Communication at Commerzbank AG, explained the broad use of analytics in her organization: "Analytics has clearly arrived at all levels of the organization. Traditionally banks are used to numbers and maths, so that is probably why we found it easier than others to adopt analytics. We even have a board division for big data and analytics."

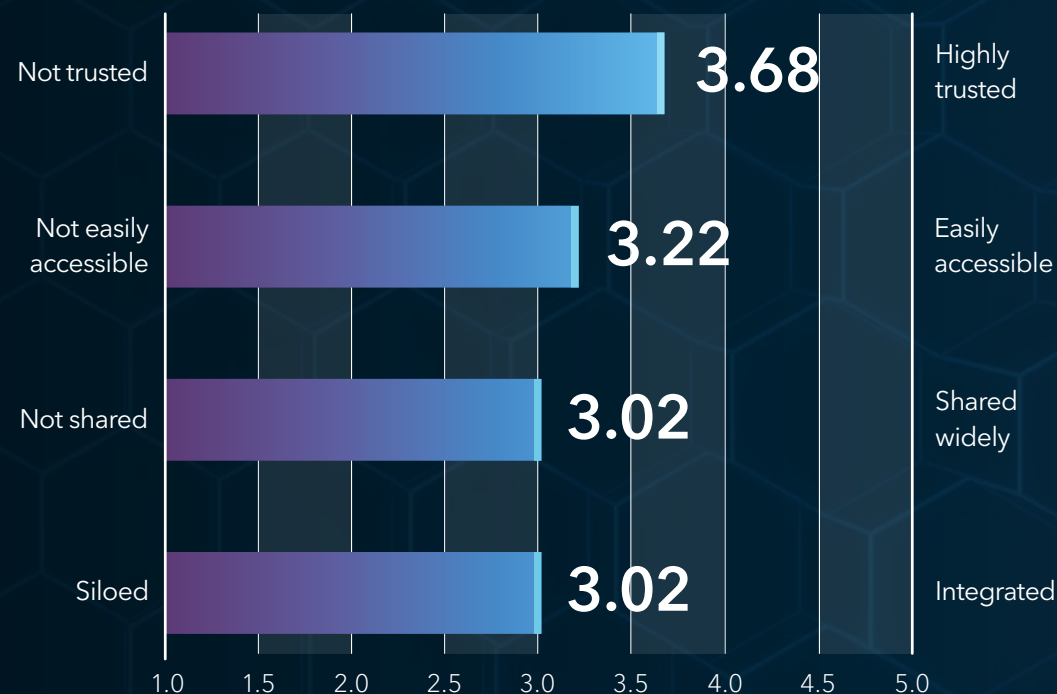
Giuseppe Preziosi, Head of Offering, Production, Competence Center DWH and Business Intelligence at Lombardia Informatica S.p.A. Services, explained how the use of analytics has grown but still has room to evolve: "Advanced analytics is on the board's agenda, aiming to make the company a data-driven company, also through the use of techniques close to AI. It is not deployed on enterprise scale yet. It's more at the BI Competence Center level, which centralizes requests of both internal and external users."

BUT CHALLENGES PERSIST

Not all companies are ready to use data, even if sufficient data of adequate quality is available. This boils down to a question of data management and governance, which remains a struggle for many organizations.

Thinking in general about the data your organization uses for analytical purposes, indicate on a scale of 1 to 5.

Source: SAS Analytics Platform Online Survey, N = 477



We asked online survey respondents to indicate confidence on a point scale regarding four data related matters. The perception is that data is often siloed and could be better shared. Organizations give better marks to data accessibility, and their trust in data is fairly strong. However, data management in many organizations remains an opportunity for improvement, and using an analytics platform could be the answer.

Giuseppe Anzelmo, CEO of Synteg Srl, shares his observations of how data is managed in organizations. "In most companies I follow, data is located, managed and consulted in siloes. There's no sharing of information, and each department has its own rules, processes and even culture."

Anja Stolz from Commerzbank AG explains ongoing challenges with data at her organization: "...We are facing several issues here: data security, linking up to external data sources, getting customer approvals for data usage - we still have to get over some hurdles here, technically and legally."



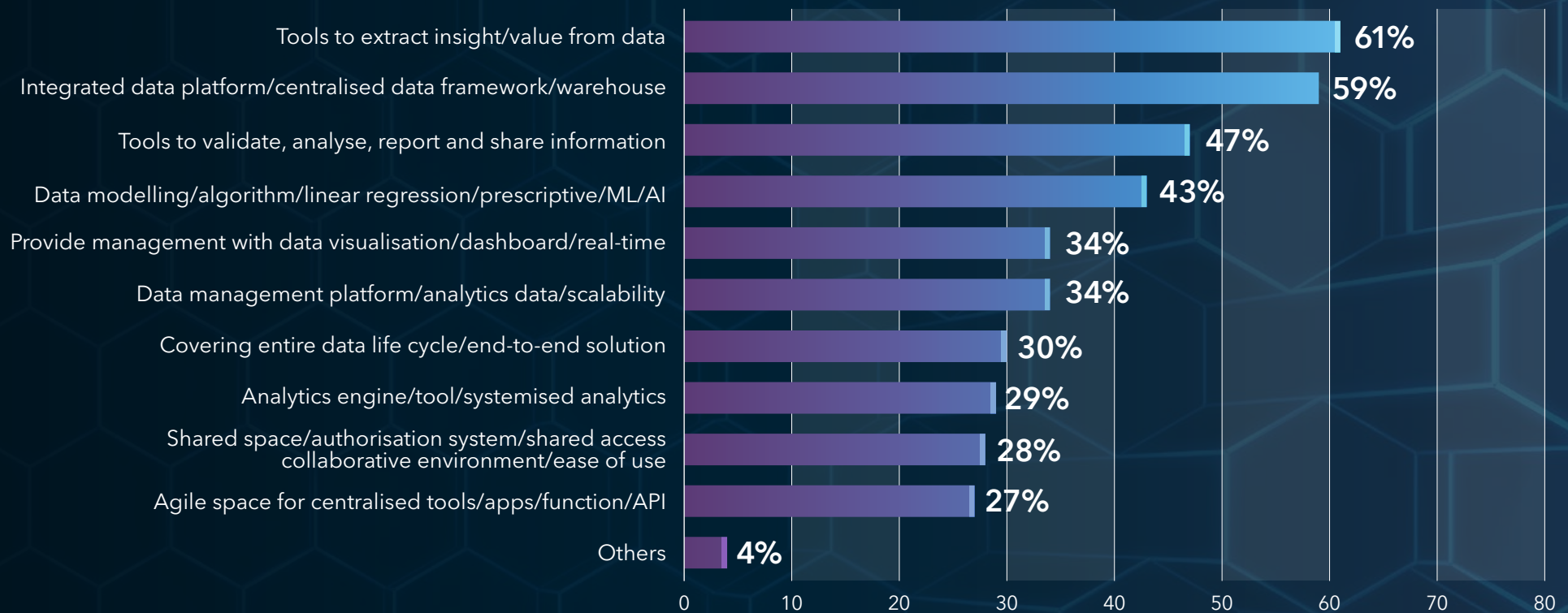
THE NEED FOR A PLATFORM

The business impact of analytics is growing in significance. This trend is being accelerated by a broadening range of use cases. But challenges that span scale and complexity persist.

An analytics platform is a software foundation that's engineered to generate insights from your data in any computing environment.

Built on a strategy of using analytical insights to drive business actions, this platform supports every phase of the analytics life cycle – from data to discovery to deployment.

sas.com/platform



What do you understand with the term analytics platform? Source: SAS Analytics Platform Expert Interview Study, N=132



PERCEIVED SCOPE OF AN ANALYTICS PLATFORM

When participants were asked to describe an analytics platform, the answers predominantly mentioned data.

The three most common descriptions were to extract value from data, to improve data integration and to validate, Analyze, report and share information. Note that only 43% mention analytics benefits concerning modeling, machine learning and AI, which somewhat correlates with the 39% that stated that analytics is core to their business strategy (page 5).

THE BENEFITS OF AN ANALYTICS PLATFORM

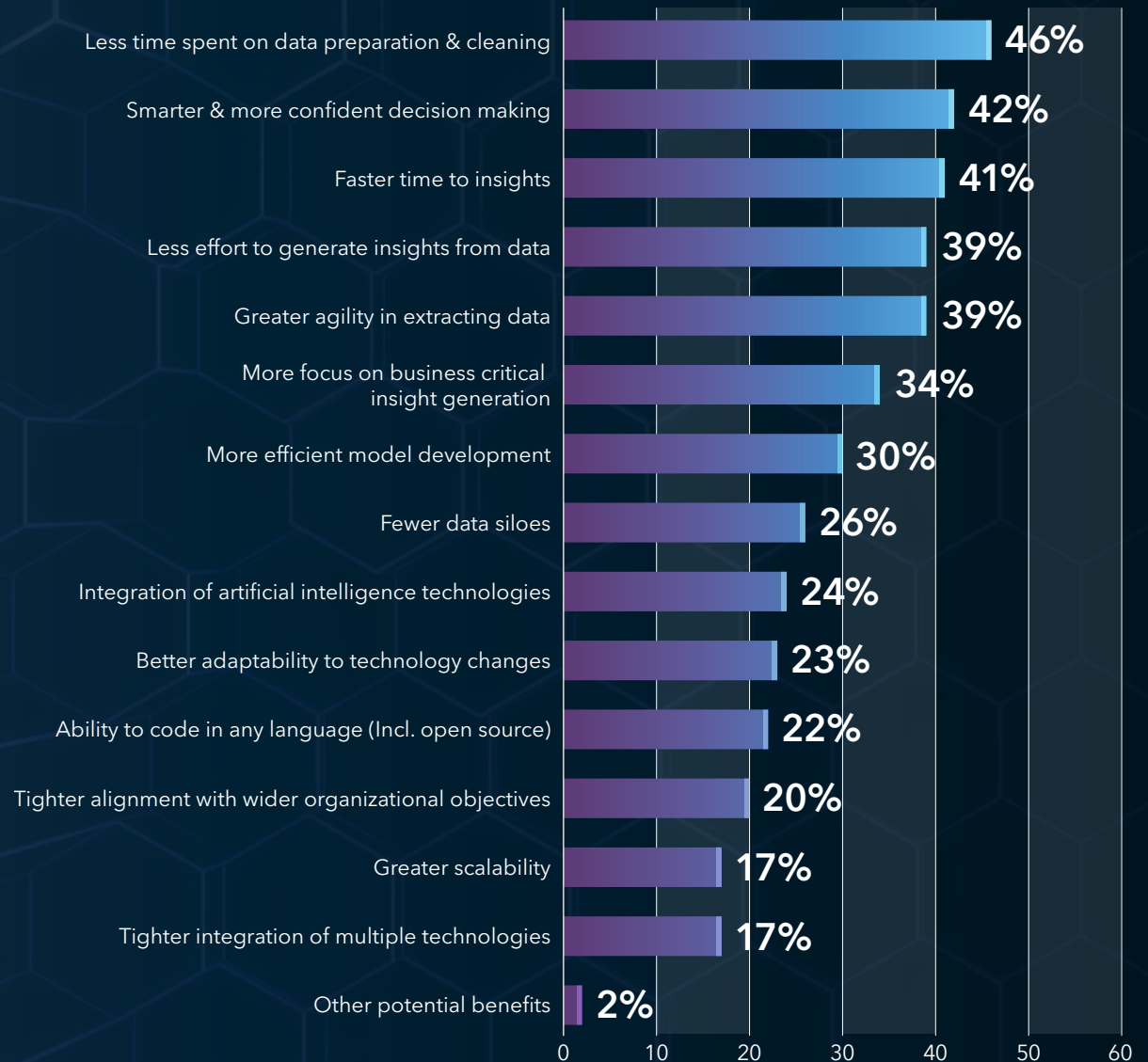
Across all roles, reducing data preparation effort was cited as the number one benefit, followed by greater confidence in decisions (trusting insights) and faster time to insights.

These are three substantial business benefits that any organization would be happy to achieve.

"Results coming from the analytical platform are used at board level too. The main benefit for them is that they receive requested information much faster now; information is produced in one day now instead of 30 days before," states one senior professional.

Please select the top five benefits that would be of highest value to your organization

Source: SAS Analytics Platform Online Survey, N = 477





WHAT ANALYTICS PLATFORMS DO FOR DATA SCIENTISTS

AN ANALYTICS PLATFORM SHOULD MAKE LIFE EASY BY ENABLING:

Access to tools including open source and SAS depending on what I need to solve my business problem

Access to different data sources

Access to hardware resources to run intensive analytical computations (e.g., GPUs for image processing) and manage large amounts of data

Merge the outcomes from different disciplines to provide better insight (hybrid models, e.g., feeding output of text into machine learning or output of forecasting into optimisation)

Make models deployable by having seamless integration to execute the models in real time/batch/streaming with no requirement for recoding and to be accessible from any environment via APIs

PROVIDE TOOLS WITH CAPABILITIES TO:



Profile the data easily to understand the discrepancies or data quality issues

Run data cleansing and filtering

Develop models with sophisticated algorithms from different disciplines & manage/monitor them

Visualise data to understand patterns

Join data from different sources and apply transformations, aggregations

WHAT ANALYTICS PLATFORMS DO FOR IT/CIO

The best platforms are environment-neutral. They will work equally well whether run from the cloud or on-premises, or even distributed across databases and edge systems. IT decision makers should look for these factors:





ENABLING TEAMWORK

Analytics-driven decisions need collaboration across the whole company.

The journey from sourcing data to enabling analytics-driven decisions is one that requires not just models, data and governance, but also participation from line of business, IT and model developers.

Professionals in each of these roles contribute to the analytics-driven decision-making process. In both our interviews and the online survey, we sought to understand how and why these roles might have slightly different expectations and experiences, that together make up the organizational view.



PROFILES

Typically, there are three distinct but interconnected groups of people required to make any analytics deployment a success. Broadly, they are:



BUSINESS SPONSORS:

Are accountable and responsible for the ultimate success of the entire project, and often hold the budget. Typically line-of-business managers (LOB), heads of analytics or innovation, their main motivation is to drive sustainable success in the market.



IT DECISION MAKERS:

Provide the software and hardware infrastructure for individuals and groups to accomplish their tasks, and reach the company's objective. Focused on integration, data sourcing, analytic discovery and sharing, they recognise that success depends on all these areas, and therefore are often the first to think about analytics more holistically and as a platform.



DATA SCIENTISTS:

Are practitioners, often writing code, manipulating data, developing models, finding correlations and visualizing data. Data-savvy, often subject matter experts in a specific field of business and/or analytics, they are passionate about what they can achieve with data, but their ambitions are often hampered by process inefficiencies (e.g., data siloes/old data, lead times for data extract requests).



CONFIDENCE IN CURRENT CAPABILITY

When asked about the trust in their organization's ability to derive business value from analytics, there was a fair degree of confidence across different roles.

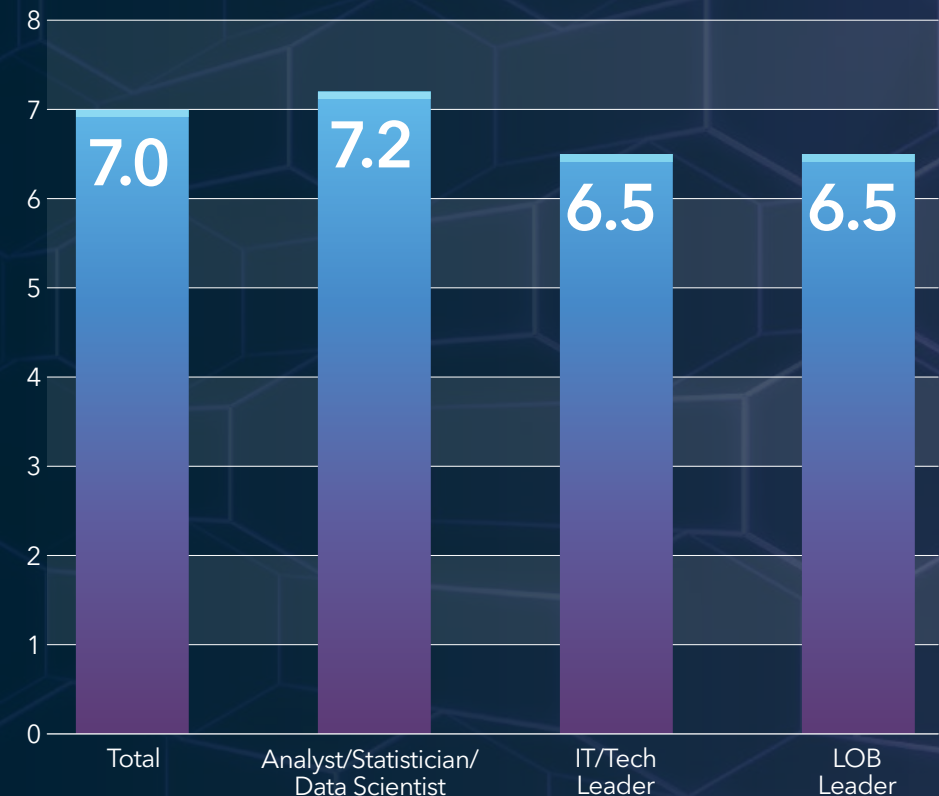
As analytics becomes more pervasive, the competitiveness of organizations becomes dependent on their ability to unlock insights in a timely manner.

Analysts and data scientists in general were more confident in this ability than IT or line of business. Their confidence may relate to the closer relationship to the data they have than the other personas. It may also have to do with the relatively limited purview of data scientists: most are engaged only in approved analytics undertakings, while business sponsors may also be taking into account projects that do not receive approval.

Inevitably, as use cases proliferate, the need to source data from multiple channels, to discover previously unimaginable insights, and to deploy in a scalable manner means a robust platform will be required.

On a scale from 1 to 10, how confident are you in your organization's ability to derive business value from analytics?

Source: SAS Analytics Platform Online Survey, N = 477

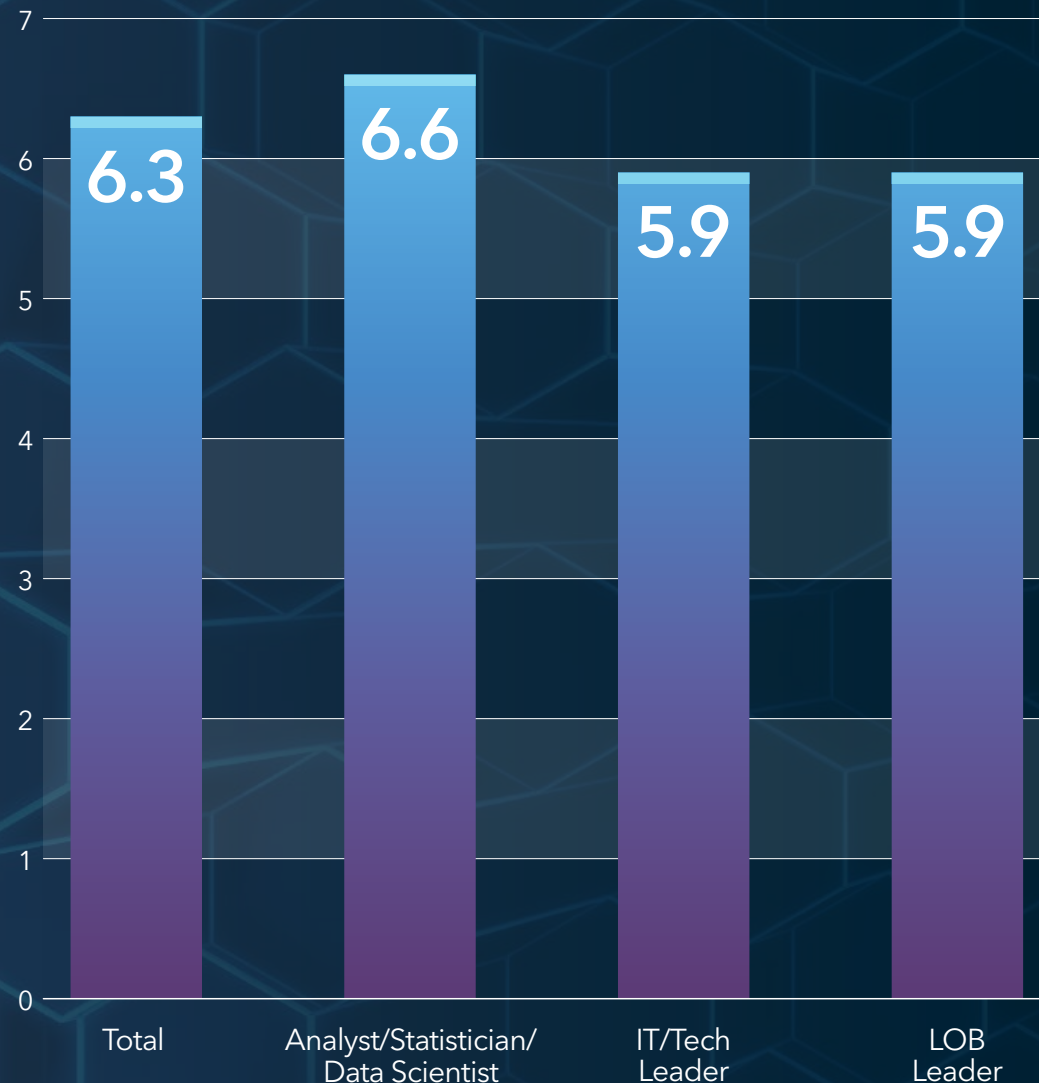


“We still have a few issues, with model deployment being the biggest one. But also data accessibility or IT security stay a challenge.”

Head of Analytics, Public Sector

On a scale from 1 to 10, how confident are you in your organization's ability to handle the future scale and complexity of the analytics workload.

Source: SAS Analytics Platform Online Survey, N = 477



CONFIDENCE IN FUTURE CAPABILITY

The scale and complexity of the future analytics workload will rise. How well prepared for future challenges do survey respondents feel in their organizations?

Looking ahead, with the proliferation of machine learning and AI, the increase in analytics workload volume and complexity is virtually guaranteed.

When thinking about ability to handle future workloads, the difference between the participant profiles is also evident, with data scientists the most optimistic.

“We are nowhere near machine learning within AI; it is far beyond our horizon of thinking right now. Once we have the right governance around that and are comfortable with the different information, we can then start learning. Getting the foundation right first is important.”

Survey Respondent

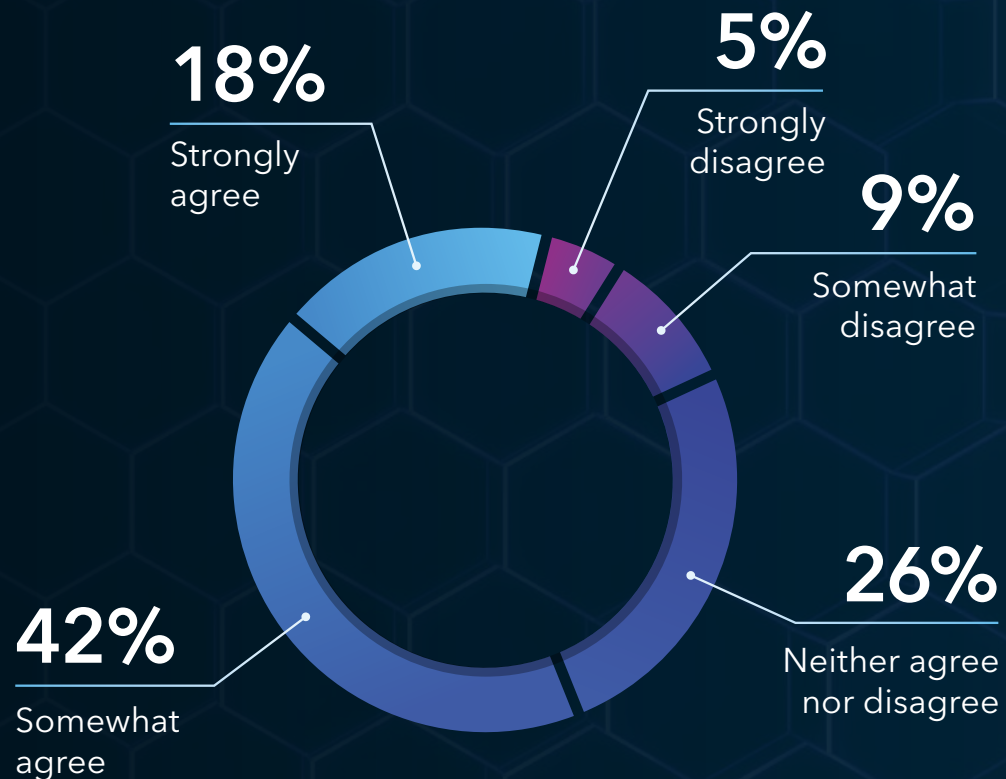


ANALYTICS FOR INNOVATION

Most respondents believe that the use of analytical resources has helped them become more innovative (18% strongly agree and 42% somewhat agree).

Our use of analytical resources has helped us become more innovative

Source: SAS Analytics Platform Online Survey, N = 477



Enabling innovation is a critical outcome of analytics. Especially given 27% of respondents cited analytics helping them launch “new business models” (see page 5). The value is not just in generating insights for operational purposes, even though that in itself is significant.

“The organization is trying to use analytics also to create new business models. For example, initiatives were implemented in the data monetization program, in which the possessed data was used to offer partner services (revenue sharing).”

Telco BI-Expert

“Innovation may not be perceived as part of our company DNA whose success is based on a product that is (hardly) changed. However, taking a closer look, small changes are continuously being made and driven forward in the context of innovation management. It is often about making already existing ideas visible and proving the value that they can deliver.”

Kristina Lisa Drenker

Manager Supply Chain Business Transformation, Coca-Cola European Partners Deutschland GmbH



WHAT WILL INNOVATION MEAN?

These findings paint a picture of widening use of analytics spurred on by demonstrable and perceived value. Organizations are beginning to embrace the need for better governance through a platform-based approach. And the most promising early indication of future performance is the recognition that analytics is contributing to innovation.

SAS believes the new normal is innovation at every level of the organization, on large and small things, on strategic bets as well as the next best offer for a customer. Not only does analytics drive innovation, it redefines the speed at which it can happen. It even redefines where it can happen - anywhere there is data.

Even within established analytics practices, change is afoot. The need to be faster, accurate and more transparent about models will be necessary for business impact and for building trust in the way algorithms learn. The future is also increasingly unstructured. There's a wealth of customer-related text, which is both abundant and available. Done correctly, extracting valuable predictive insights from huge quantities of text takes just seconds. And this data holds the key to the next generation of intelligent systems, which will be largely based on predictive analytics and AI-based applications.

At the intersection of data, software and ingenuity, the future is being redefined. After all, when curiosity meets capability, progress is inevitable.

We want to thank all our survey participants and the many SAS customers on this path of progress and innovation. We look forward to seeing where it takes you.



LEARN MORE

Discover how you can orchestrate your analytics journey with a perfect balance of choice and control with the SAS® Platform.

sas.com/platform

“WHAT IF? TWO SIMPLE WORDS. A BOLD QUESTION. DRIVER OF CHANGE AND PROGRESS. FUEL FOR INNOVATION.”

Oliver Schabenberger

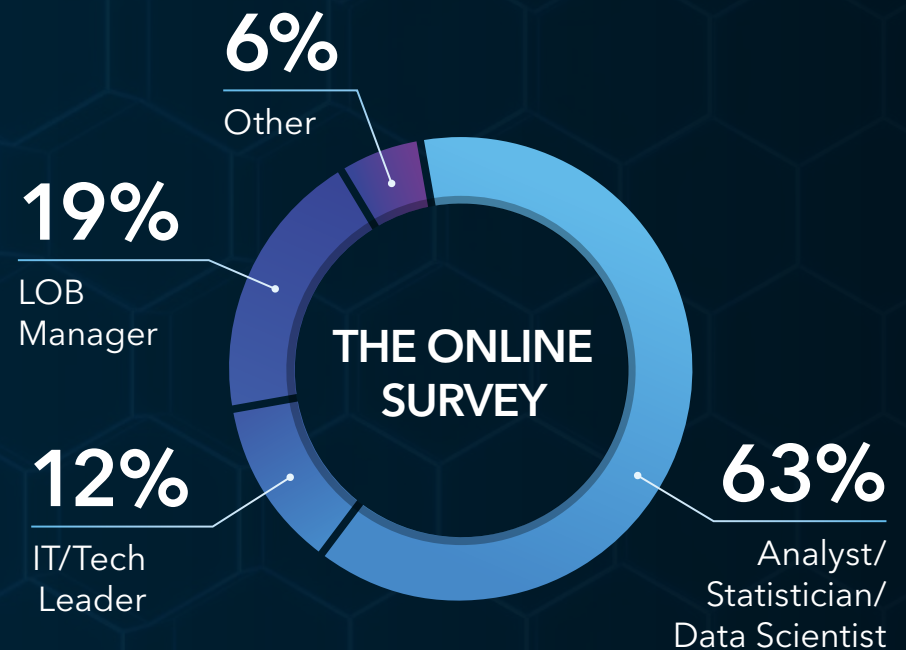
Executive Vice President, Chief Operating Officer and Chief Technology Officer, SAS



STUDY RESPONDENTS



Source: SAS Analytics Platform Expert Interview Study, N=132



Source: SAS Analytics Platform Online Interview Study, N=477



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