THE FUTURE OF ANALYTICS

ASSISTED AND AUTOMATED, BUT THE HUMAN REMAINS IN CONTROL

TOPICAL SURVEY

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Introduction

Advanced analytics has come a long way in recent years since the hype around big data ignited. Since then, a considerable number of companies have prototyped analytics solutions and sought to operationalize them. Besides data scientists, user groups such as business analysts are now exploring the potential of advanced analytics. Processes to explore data and operationalize analytics are being consolidated and tools are increasingly addressing the needs of these different user groups and processes, and even automating data analysis.

Which of these topics will remain relevant? Which experiences are relevant for the future? Which technologies show the most promise? Is advanced analytics still an important topic for the future or is the hype tailing off? This survey examines the future prospects for the development of advanced analytics in terms of its role for companies, relevant user groups, processes and technologies. Firstly, we will take a look at where companies are now. We will then explore the implementation of advanced analytics, what users have achieved and what they continue to struggle with. Finally, we will look more closely at the preconditions that need to be in place to implement advanced analytics successfully, put recent technology trends regarding the automation of analytics into perspective and let the participants of this survey air their own views on the future developments of analytics.

Respondents came from large, mid-sized and small companies all over the world, with different backgrounds regarding their use of advanced analytics. Participants were asked to rate the advanced analytics skills and competencies present in their company compared to their main competitors. This allowed us to gain a better understanding of what "best-in-class" companies are doing to benefit more from their data and analytics efforts in comparison to "laggards".

We hope that this study gives you some insight into the current state of advanced analytics and sheds light on its future development to inform your decisions.

Sebastian Derwisch & Alexander Rode, October 2020

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Management summary

66%

of respondents lack the human resources to carry out advanced analytics.

01 **CURRENT STATUS - ADOPTION OF ADVANCED ANALYTICS IS GROWING STEADILY, HEAVY USERS ARE STILL AN EARLY MAJORITY**

Companies that are using advanced analytics heavily are still an early majority. 20 percent of our survey respondents are using advanced analytics in operational scenarios across different departments. Companies are therefore still able to gain a competitive advantage by using advanced analytics in operational processes. The main barriers to using advanced analytics are a lack of resources such as time and personnel as well as costs and a lack of analytical literacy.

64%

state that improving data management is a top investment priority.

02 **IMPLEMENTING ANALYTICS REQUIRES A MIX OF TECHNOLOGY, EDUCATION, STRATEGY AND INTERNAL MARKETING OF THE TOPIC**

The most important conditions for the successful use of advanced analytics are having the right tool, promoting the topic within the company, training business users in how to analyze data and having a holistic data strategy in place. Notably there is a large gap in the importance that best-in-class companies and laggards attribute to investment in training and a holistic data strategy. These points are not crucial for companies using advanced analytics selectively, but using it across the entire company only works when data access and governance is right and when enough users possess the relevant skills. Improving data management and employees' skills with training are therefore top investment priorities.

Management summary

03 AUTOML AND AUGMENTED ANALYTICS SUPPORT EXPERTS – BUT DO NOT TAKE HUMANS OUT OF THE LOOP

Two thirds of the respondents believe that automated machine learning (AutoML) solutions can offer a high level of support in data preparation – the most time-consuming task in advanced analytics projects – as well as in the selection of appropriate models. More than 80 percent see AutoML solutions as a way to make business analysts and data scientists more efficient. Only a few think that these solutions will replace data scientists. However, expert knowledge is still required to use the solutions and interpret results. Many analytical tasks require human intervention, such as problem formulation, selection of the right method and error measure and results interpretation.

80%

see AutoML solutions as a way to make business analysts and data scientists more efficient.

04 ADVANCED ANALYTICS IS HERE TO STAY – BUT DATA MANAGEMENT & ANALYTICS LITERACY NEED TO BE IMPROVED

Almost all respondents consider advanced analytics to be a valuable addition to their existing analytics landscape and they also expect business analysts to use it in the future. Data literacy is seen by most as one of the biggest barriers to this. Advanced analytics, especially in operational scenarios, often aims to automate processes. Gaining trust in automated decisions to improve data quality is considered to be a major issue. Many companies already experience data problems in their business intelligence, so they are aware that input data need to be reliable and complete. Training business analysts and algorithmic transparency are further areas to address trust in automated decision-making.

74%

think that trust in automated decisions must be addressed by improving data quality.

Action items
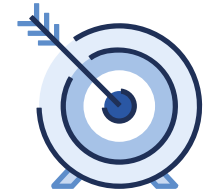
START NOW

Start now and be part of an early majority that implements and operationalizes advanced analytics across the company. For that to happen, the human resources to devote time to advanced analytics for formulating and testing use cases and making data accessible need to be in place. The benefits are substantial and tangible for those making the effort. Users report benefits with regard to cost savings and improved customer experience.

GET THE MIX RIGHT

Consider blending tools and education to implement advanced analytics successfully. Companies benefit from building awareness about possible use cases and benefits. Employees need to have basic skills in data preparation, visualization and interpretation as well as a shared understanding of the potential of advanced analytics in your business. Building human resources to improve analytical skills is the most important measure companies can take at an early stage to ensure success. While external resources help to ramp up projects, pervasive use can only be established with broad internal knowledge. Intuitive and business-user-friendly tools facilitate working with advanced analytical methods enormously. Efforts should be accompanied by a clear and pragmatic strategy of how data should and should not be used within the company to inform and automate decisions.

Action items

SUPPORT YOUR DATA SCIENTISTS WITH AUTOML

Use automated machine learning to make data scientists more efficient, especially in data preparation, model training and validation. But do not expect software to replace your data science team in the future. Data science still requires human input, for example, to define the use case, evaluate the results, decide whether to operationalize a prototype and to integrate solutions into the organization.

ADVANCED ANALYTICS WILL GAIN FURTHER TRACTION IN THE FUTURE – BUT ONLY WHEN DATA AND ANALYTICS LITERACY KEEPS UP

Expect analytics to be used across different functions in operational processes in the future. Advanced analytics will automate many data-based decisions in the future, but this will only happen when people have gained trust in automated decisions. For this to happen, data and analytics literacy is one of the biggest hurdles. Another key point on this journey is data management. Algorithms are as good as the data they are trained with, so data management and quality are key to ensure algorithms produce valid results.

01 Adoption of advanced analytics is growing steadily, heavy users are still an early majority

AN EARLY MAJORITY IS USING ADVANCED ANALYTICS COMPANY WIDE

We use advanced analytics extensively/company-wide
20%

We use advanced analytics selectively
41%

We do not currently use advanced analytics, but its use is conceivable or planned for the future
33%

We do not use or foresee using advanced analytics in our company
5%

To what extent do you use advanced analytics in your company? (n=311)

number of respondents that reported a selective use of advanced analytics remained constant over time. This year only 5 percent stated, that they do not foresee the use of Advanced Analytics in their company compared to 19 percent in 2017 and 13% in 2018.

● 2017   ● 2018   ● 2020

Used extensively/ company-wide
5%   10%   20%

Used selectively
31%   33%   41%

Currently not used, but conceivable/planned
46%   44%   33%

Not used or planned in the future
19%   13%   5%
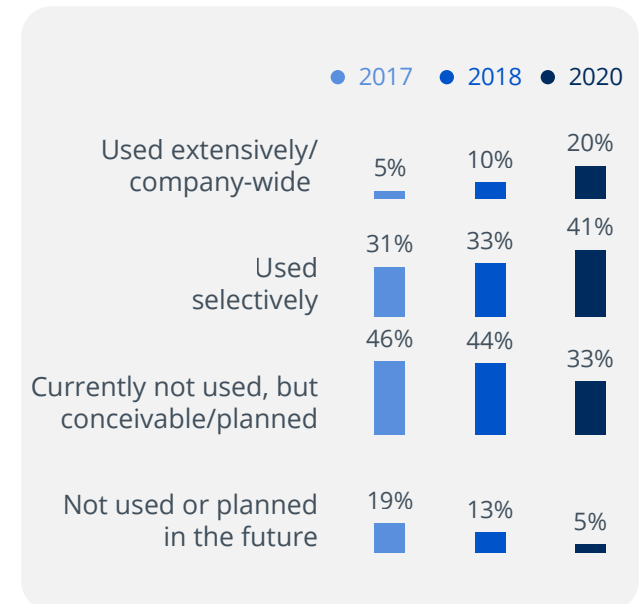
To what extent do you use advanced analytics in your company? (n= 210/267/311)

Advanced Analytics is not only used by the early adopters anymore. 20 percent of our survey respondents are using it heavily today. They run advanced analytics in operational scenarios across different departments. 41 percent use advanced analytics selectively. These users have usually started experimenting with advanced analytics in specific departments and producing analytical results selectively but are not running advanced

analytics in automated scenarios. Another 33 percent foresee the use of advanced analytics in the future.

Comparing these figures with BARC market studies from the past years we see that aware-ness and use of advanced analytics are growing steadily. 5 percent of the respondents reported extensive use in 2017 and 10 percent in 2018. The

01 Adoption of advanced analytics is growing steadily, heavy users are still an early majority

COMPANIES LACK THE TIME AND PERSONNEL IN LINE OF BUSINESS AND IT TO IMPLEMENT ADVANCED ANALYTICS

Lack of resources (time, personnel)
66%

Cost/no budget
44%

Lack of analytical know-how in business departments
43%

Lack of technical know-how in the company
32%

Business benefits are difficult to prove
29%

Possible application scenarios and use cases are not relevant to us
28%

Lack of organizational anchoring for advanced analytics
28%

Lack of management support
23%

Lack of understanding of data-driven business models
22%

The implementation effort would be too much
19%

Advanced analytics solutions are too complex
17%

Difficulty in finding staff
15%

Regulatory and data privacy
10%

Why is advanced analytics not used in your company? (n=119)

Looking at those companies using advanced analytics extensively and company-wide, the market is still at an early stage of adoption. This comes as no surprise because doing advanced analytics right requires a lot of upfront investment. A lack of human resources is the number one challenge in advanced analytics, cited by 66 percent of respondents. This refers not only to data scientists but also to additional human resources in the line of business that need to build up the data required and analytics literacy, as well as IT departments facing new data management and storage requirements. A lack of analytical know-how was cited by 43 percent and a lack of technical know-how by 32 percent of respondents.
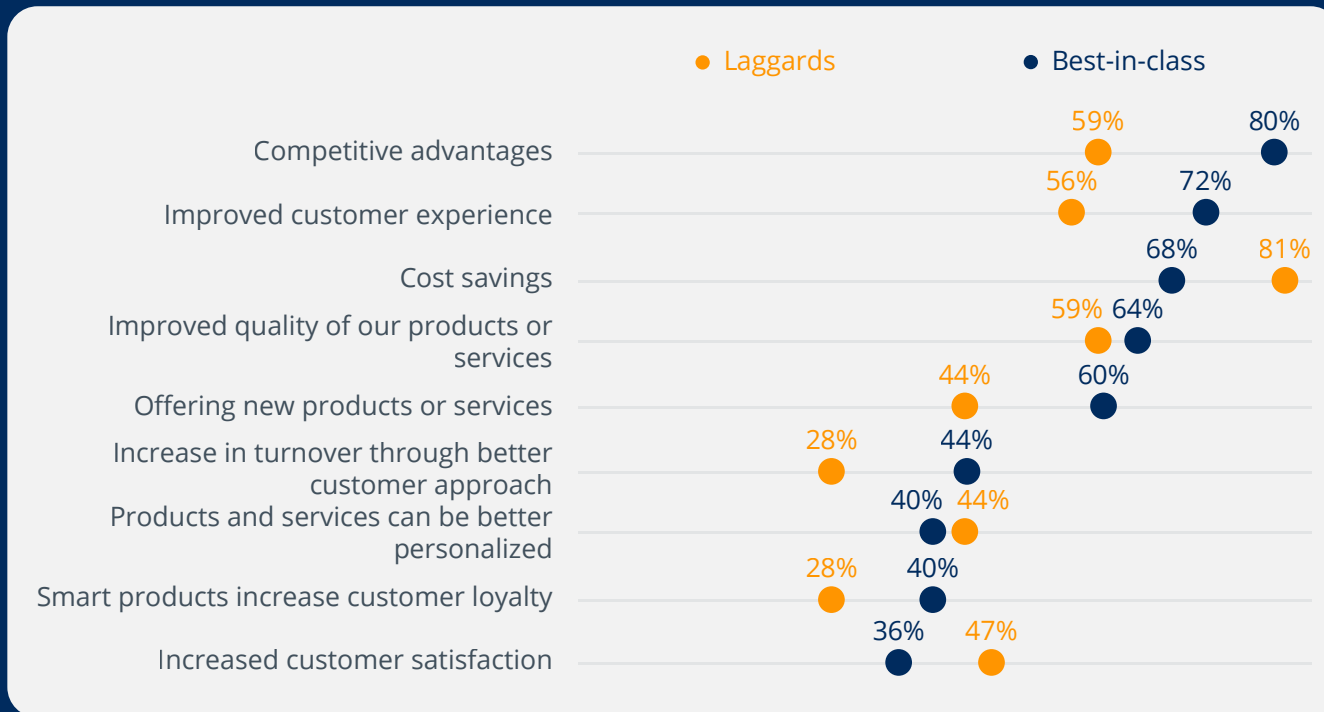
> *A lack of human resources is the number one challenge in advanced analytics, cited by 66 percent of respondents.*

Spotlight: Benefits

COST SAVINGS AND INCREASED CUSTOMER SATISFACTION ARE MAJOR BENEFITS

● Laggards ● Best-in-class

Benefit	Laggards	Best-in-class
Competitive advantages	59%	80%
Improved customer experience	56%	72%
Cost savings	81%	68%
Improved quality of our products or services	59%	64%
Offering new products or services	44%	60%
Increase in turnover through better customer approach	28%	44%
Products and services can be better personalized	44%	40%
Smart products increase customer loyalty	28%	40%
Increased customer satisfaction	47%	36%

Which advantages have you achieved or do you expect to achieve by using advanced analytics? (n=57), by best-in-class

Many companies find it difficult to track and quantify the benefits gained from advanced analytics. On the one hand, this requires a degree of maturity in analytics projects and even using analytics in operational processes.

However, many processes are only indirectly affected by advanced analytics, making it difficult to reliably assess its influence. It is therefore interesting to compare the answers of best-in-class companies regarding benefits achieved against feedback from laggards. 80 percent of best-in-class companies report that they expect to achieve, or have already achieved, competitive advantages compared to only 60 percent of laggards. Laggards see cost savings as the most important benefit of using analytics (80 percent), which is also among the most important benefits achieved by best-in-class companies. This is no great surprise because most use cases target operational processes. However, best-in-class companies also see improved customer experience (72 percent) realized by, for example, improved products and services (64 percent) or a better customer approach (44 percent) as an important advantage. Using analytics not only to optimize internal processes and save costs but also to address the customer better is an important goal for analytics in every company.
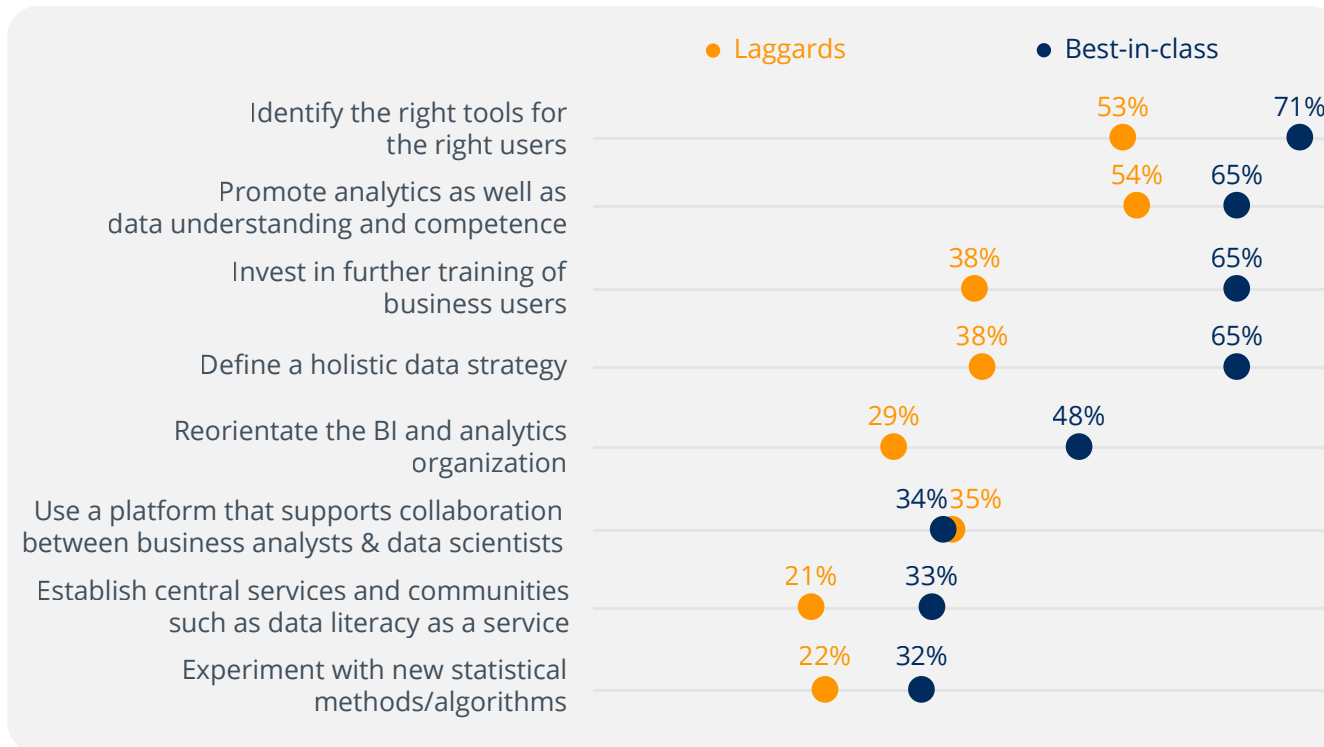
Implementing analytics requires a mix of techno-logy, education, strategy and internal marketing

TOOLS, SKILLS AND STRATEGY DRIVE ADVANCED ANALYTICS FORWARD

● Laggards   ● Best-in-class

	Laggards	Best-in-class
Identify the right tools for the right users	53%	71%
Promote analytics as well as data understanding and competence	54%	65%
Invest in further training of business users	38%	65%
Define a holistic data strategy	38%	65%
Reorientate the BI and analytics organization	29%	48%
Use a platform that supports collaboration between business analysts & data scientists	35%	34%
Establish central services and communities such as data literacy as a service	21%	33%
Experiment with new statistical methods/algorithms	22%	32%

How important are the following points in the successful use of advanced analytics in your company? (n=101), by best-in-class, only "very important" shown

Even though advanced analytics has been the subject of discussion for several years now, promoting the topic within the company is still a top priority for its successful use. This is especially true for companies that use advanced analytics for selected use cases only. Common use cases,

potential business benefits and implications for operational processes need to be clarified for users to justify participating in such initiatives.

Having the right tool for the right user is seen as one of the most important requirements for the successful use of advanced analytics. Indeed, best-in-class companies view this as the number one consideration. Especially in companies that use advanced analytics extensively, the topic is not only driven by data scientists but requires line of business, BI and analytics to interact extensively. The skills and requirements of these different groups in terms of user support, visualization and coding are extremely diverse. And all tools require skilled users. 65 percent of the respondents from best-in-class companies and 38 percent of laggards therefore regard investment in further training as a major priority for the success of advanced analytics. Notably, there is a large gap in the importance that best-in-class companies and laggards assign to investment in training and a holistic data strategy. These points are not crucial for companies making selective use of advanced analytics, but using it across the company only works if data access and governance is right and sufficient users have the skills to do it.

02 Implementing analytics requires a mix of techno-logy, education, strategy and internal marketing

DATA MANAGEMENT IS A TOP INVESTMENT PRIORITY

Improving data management
64%

Further training of existing employees
58%

Use of advanced analytics in operational processes
45%

Definition of a data and analytics strategy
42%

Analysis software or an analysis platform
37%

Recruitment and creation of new jobs
26%

External consulting
24%

Creation of a separate organizational unit for analytics
17%

In which measures and technologies do you primarily want to invest in the future? (n=290)
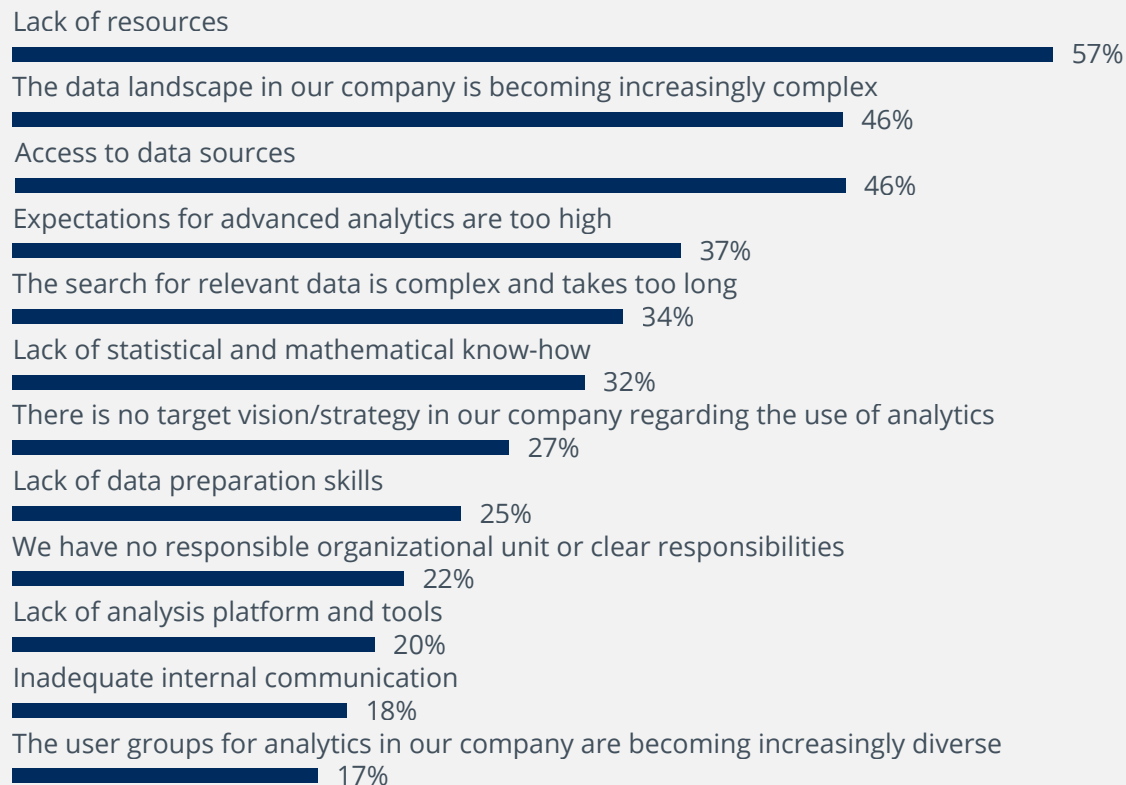
Another important point is the definition of a holistic data strategy. It is not surprising that data management is cited as a success factor or investment priority by respondents to this survey. Advanced analytics requires access to data for entire new user groups, making new data sources accessible and establishing relationships between data beyond traditional data warehouse models. Looking at future investment priorities, improving data management is rightly seen as a top priority by 64 percent of respondents. Without reliable and accessible data, analytics is impossible.

The second most important investment priority is employee training (58 percent) as many companies, especially in the line of business, complain of a lack of analytical know-how. Using analytics in operational processes, the operationalization of which again requires different software and human resources compared to prototyping, is seen as a priority by 45 percent.

Spotlight: Data management

THREE OUT OF THE TOP FIVE CHALLENGES FOR ADVANCED ANALYTICS RELATE TO DATA MANAGEMENT

Lack of resources
57%

The data landscape in our company is becoming increasingly complex
46%

Access to data sources
46%

Expectations for advanced analytics are too high
37%

The search for relevant data is complex and takes too long
34%

Lack of statistical and mathematical know-how
32%

There is no target vision/strategy in our company regarding the use of analytics
27%

Lack of data preparation skills
25%

We have no responsible organizational unit or clear responsibilities
22%

Lack of analysis platform and tools
20%

Inadequate internal communication
18%

The user groups for analytics in our company are becoming increasingly diverse
17%

What are the biggest challenges in your company when using advanced analytics? (n=190)

Data quality and data management have already been identified as major issues influencing the successful usage of advanced analytics. When asked to name the biggest challenges in using advanced analytics, three out of the top five answers directly relate to data management. The biggest challenge for companies is a lack of human resources, cited by 57 percent of respondents. This points to a shortage of data scientists, business analysts and IT staff. 46 percent see a complex data landscape and access to data sources as challenges. The increasing variety of systems that produce and store data, multiple data formats and data that is stored in loosely connected silos with barriers to access are hurdles to fulfilling the potential of data and analytics. In particular, siloed data impedes access to valuable data assets and makes finding the right data for a job a daunting challenge, which is an issue for 34 percent of respondents. Without proper and consistent data that is readily available to users, data pipelines cannot be automated and analytics models cannot be operationalized.

Spotlight: Data management

THREE OUT OF THE TOP FIVE CHALLENGES FOR ADVANCED ANALYTICS RELATE TO DATA MANAGEMENT

The importance of data management is emphasized in other findings from this survey. Improving data quality was named as the number one priority to tackle trust issues in automated decision-making by 74 percent of respondents. When asked about future investment priorities, improving data management was top of the wish list of respondents, highlighted by 64 percent . Among other things, data management encompasses tasks such as granting access to consumable data for different kinds of users, ensuring data quality to make analytics possible and trustworthy, and documenting data to make it usable. These are the basics, but doing them right not only benefits BI but is also a precondition for making an impact with advanced analytics.

74%

of respondents say their number one priority in tackling trust issues in automated decision-making is to improve data quality.
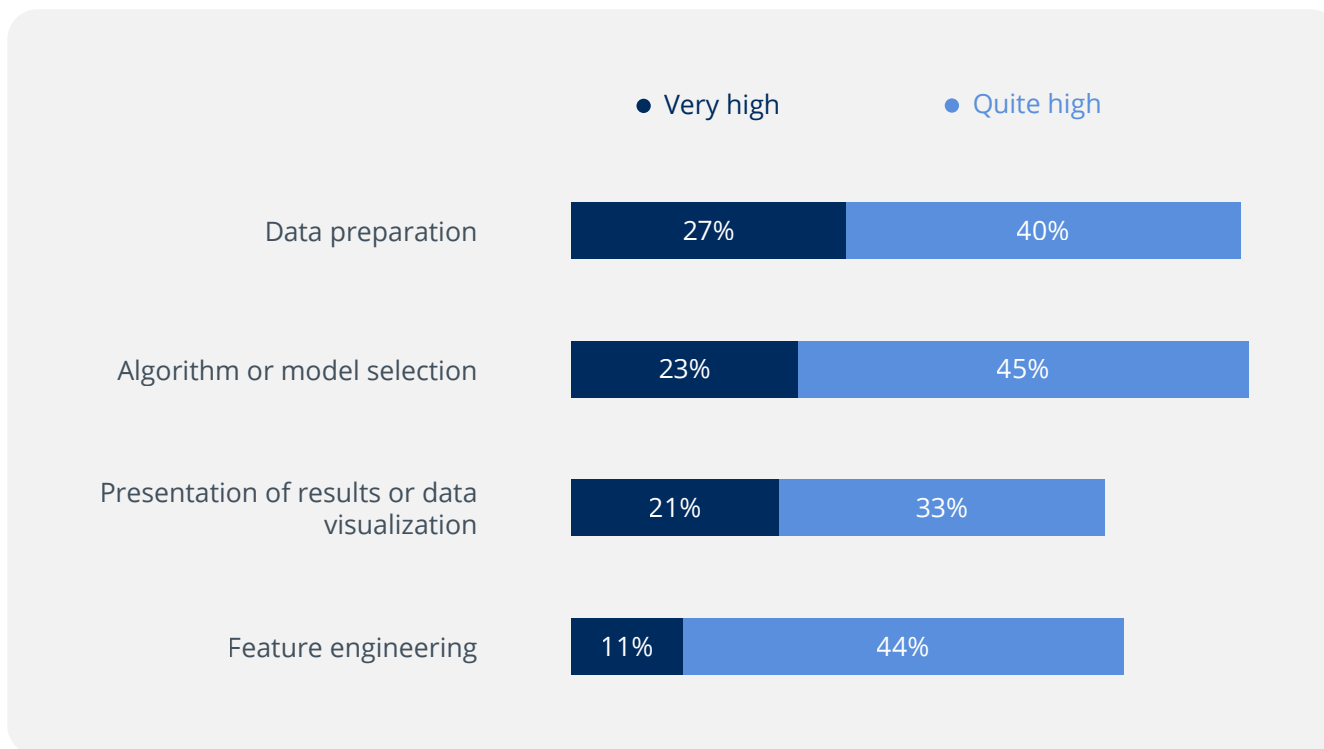
64%

of companies state that improving data management is top of their wish list of future investment priorities.

03 AutoML and Augmented Analytics support experts – but does not take humans out of the loop

AUTOML HAS ITS MAIN BENEFITS IN DATA PREPARATION AND MODEL SELECTION

● Very high   ● Quite high

	Very high	Quite high
Data preparation	27%	40%
Algorithm or model selection	23%	45%
Presentation of results or data visualization	21%	33%
Feature engineering	11%	44%

In your opinion, what degree of support can automated machine learning offer data scientists in the following steps of the analytical process? (n=296)

solutions also automate feature engineering and parts of data preparation.

Two thirds of our survey respondents believe that automated machine learning (AutoML) solutions can offer a high level of support in data preparation – the most time-consuming task in advanced analytics projects – as well as in the selection of appropriate models. Less value add is expected in other tasks such as results presentation and feature engineering. Both of these tasks are problem-specific and require a certain degree of domain knowledge. Still, AutoML solutions can support data scientists in presenting the most common metrics and visualizations to users by visualizing the most important metrics in dashboards. Common steps in feature engineering such as automatically scaling numeric variables or extracting components from date variables can easily be automated, enhancing efficiency and the quality of the results.

In automated machine learning (AutoML), mathematical models are trained, optimized and evaluated automatically by software based on data that is selected by humans. Some machine learning

03 AutoML and Augmented Analytics support experts – but does not take humans out of the loop

AUTOML MAKES DATA SCIENTISTS AND BUSINESS ANALYSTS MORE EFFICIENT – BUT WON'T REPLACE THEM

● Disagree   ● Agree

Statement	Disagree	Agree
AutoML makes data scientists more efficient	15%	85%
AutoML makes business analysts more efficient	19%	81%
AutoML is increasingly being used by data scientists	21%	79%
I have a clear understanding of the benefits of AutoML	42%	58%
AutoML is increasingly being used by business analysts	47%	53%
AutoML enables data analysis without expert knowledge	60%	40%
AutoML solutions are black-box solutions that should not be trusted	76%	24%
AutoML will replace data scientists in the future	81%	19%
AutoML will replace business analysts in the future	82%	18%

To what extent do you agree with the following statements regarding automated machine learning (AutoML)? (n=277)

More than 80 percent of respondents see AutoML solutions as a way to make business analysts and data scientists more efficient. But expert knowledge is still required to use these solutions and interpret results. While 79 percent of respondents see AutoML being increasingly used by data scientists, only 53 percent see business analysts, who often lack deep statistical knowledge, using these tools.

Only 20 percent anticipate that those roles will be replaced by algorithms. This makes sense as there are many analytical tasks, such as problem formulation, selection of the right method and error measure and results interpretation, that require human intervention.

80% *of respondents see AutoML solutions as a way to make business analysts and data scientists more efficient, whereas*

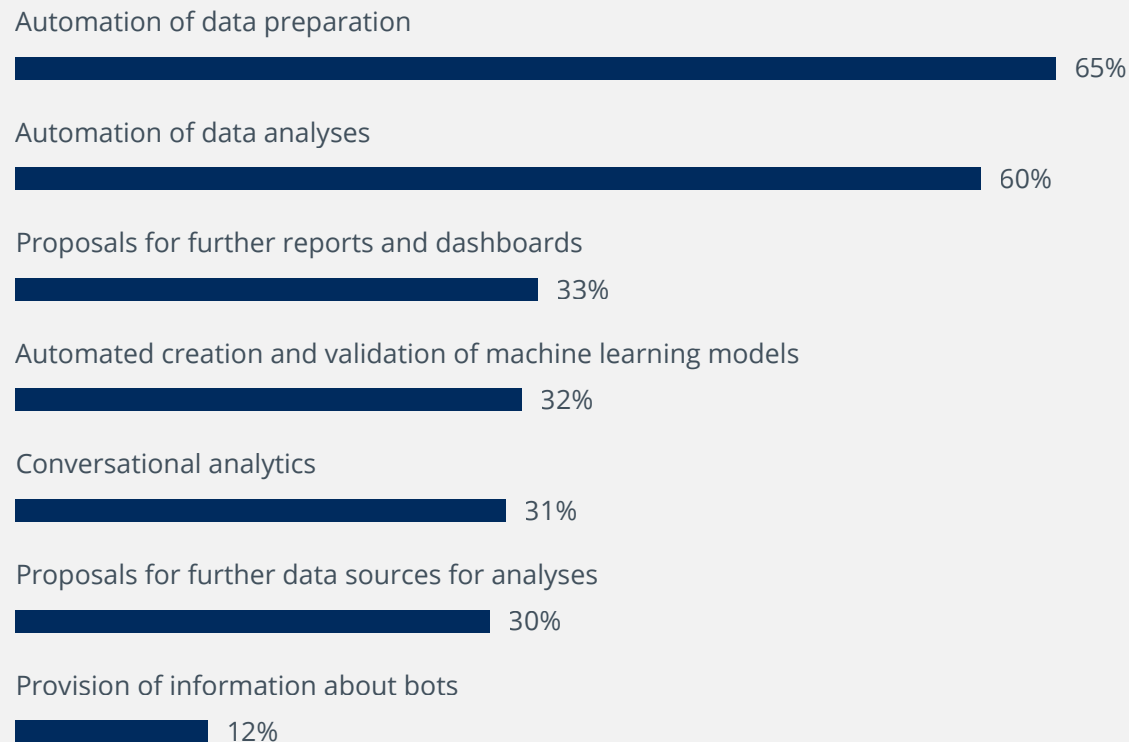**20%** *anticipate that those roles will be replaced by algorithms.*

Spotlight: Augmented Analytics

AUGMENTED ANALYTICS HAS ITS MAIN BENEFITS IN DATA PREPARATION AND MODEL SELECTION

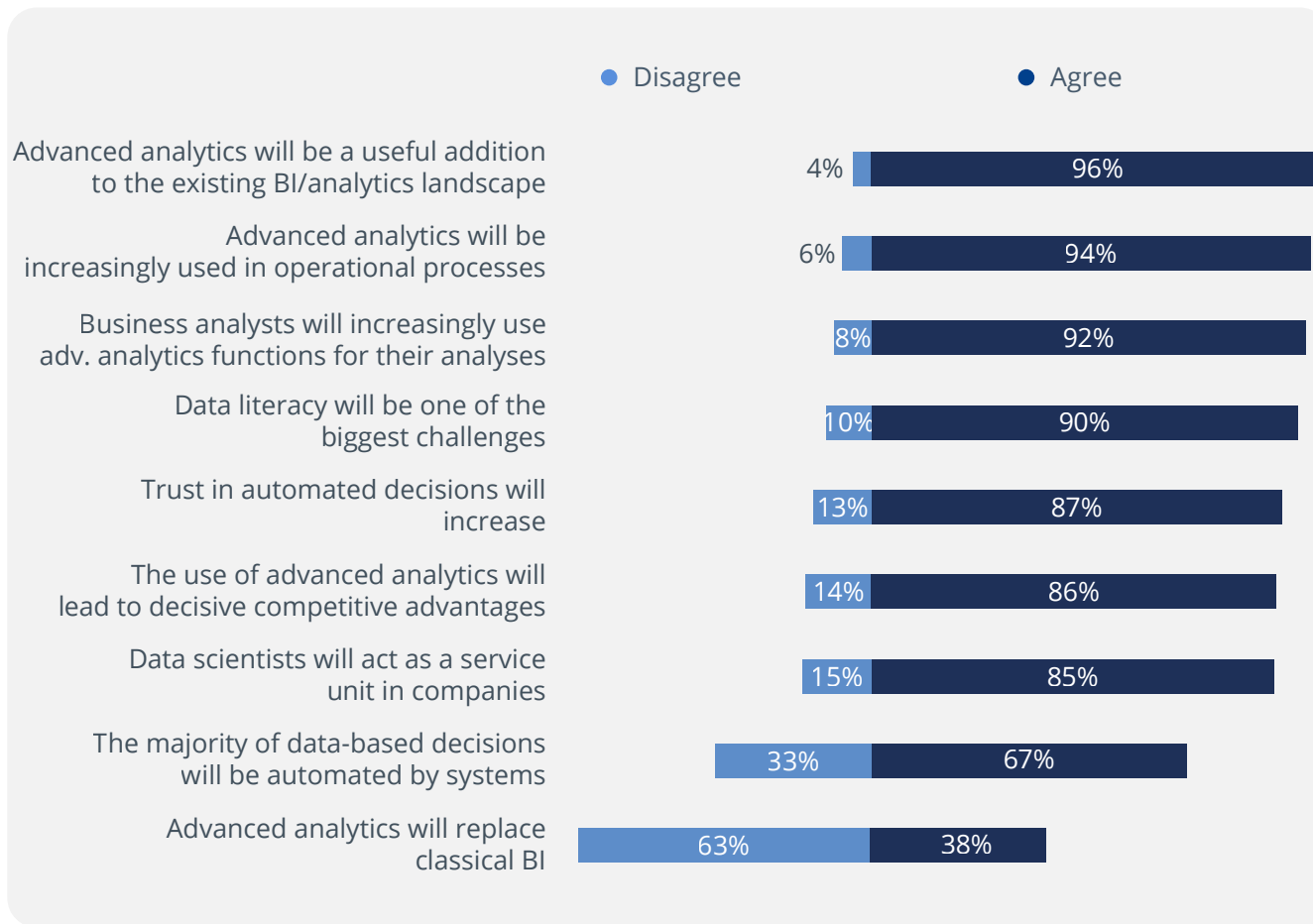Automation of data preparation
65%

Automation of data analyses
60%

Proposals for further reports and dashboards
33%

Automated creation and validation of machine learning models
32%

Conversational analytics
31%

Proposals for further data sources for analyses
30%

Provision of information about bots
12%

In your opinion, how can augmented analytics best support business analysts (i.e., power users from business departments)? (n=301)

Another approach to automate data analysis is augmented analytics. Augmented analytics has the potential to support inexperienced users, making analytics more accessible to the line of business. Augmented analytics can be defined as software-driven support for analysis, mainly targeted at business analysts. It uses heuristics and mathematical models to guide users in data preparation, visualization and data analysis or even present them with automatically generated insights from data sets. Respondents see augmented analytics supporting users mostly in data preparation (65 percent) and data analysis (60 percent). Less value is expected in proposing new reports and dashboards (33 percent), a task requiring knowledge of the business that software does not have. Also, only 32 percent see training and validating machine learning models as something that augmented analytics can support business users with. This job is not usually at the heart of what business analysts do: to them the analysis of data by simple statistical models or the visual analysis of data is more important. Also, the use of bots and natural language queries (NLQ) is not expected to add a lot of value, as the user interfaces of most software packages make it easy to navigate data and conduct data analysis.

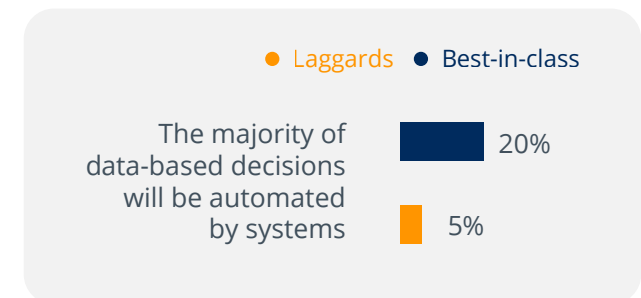# Advanced analytics is here to stay – but data management & analytics literacy must be improved

ADVANCED ANALYTICS WILL GROW IN POPULARITY

● Disagree   ● Agree

Advanced analytics will be a useful addition to the existing BI/analytics landscape — 4% | 96%

Advanced analytics will be increasingly used in operational processes — 6% | 94%

Business analysts will increasingly use adv. analytics functions for their analyses — 8% | 92%

Data literacy will be one of the biggest challenges — 10% | 90%

Trust in automated decisions will increase — 13% | 87%

The use of advanced analytics will lead to decisive competitive advantages — 14% | 86%

Data scientists will act as a service unit in companies — 15% | 85%

The majority of data-based decisions will be automated by systems — 33% | 67%

Advanced analytics will replace classical BI — 63% | 38%

To what extent do you agree with the following statements in relation to the future of advanced analytics? (n=312)

Almost all respondents consider advanced analytics to be a valuable addition to their existing analytics landscape. Data literacy is seen by 90 percent of respondents as one of the biggest challenges. Especially in the line of business, analytical know-how needs to be built up to generate ideas for relevant use cases that can benefit from operationalization. To reach that goal, extensive training is required. More than two thirds of respondents expect that the majority of data-based decisions will be automated in the future, and about one third even believe that advanced analytics will replace BI. Such automation can already be observed nowadays with dynamic pricing, forecasting and customer scoring, which makes corresponding reports redundant.

● Laggards   ● Best-in-class

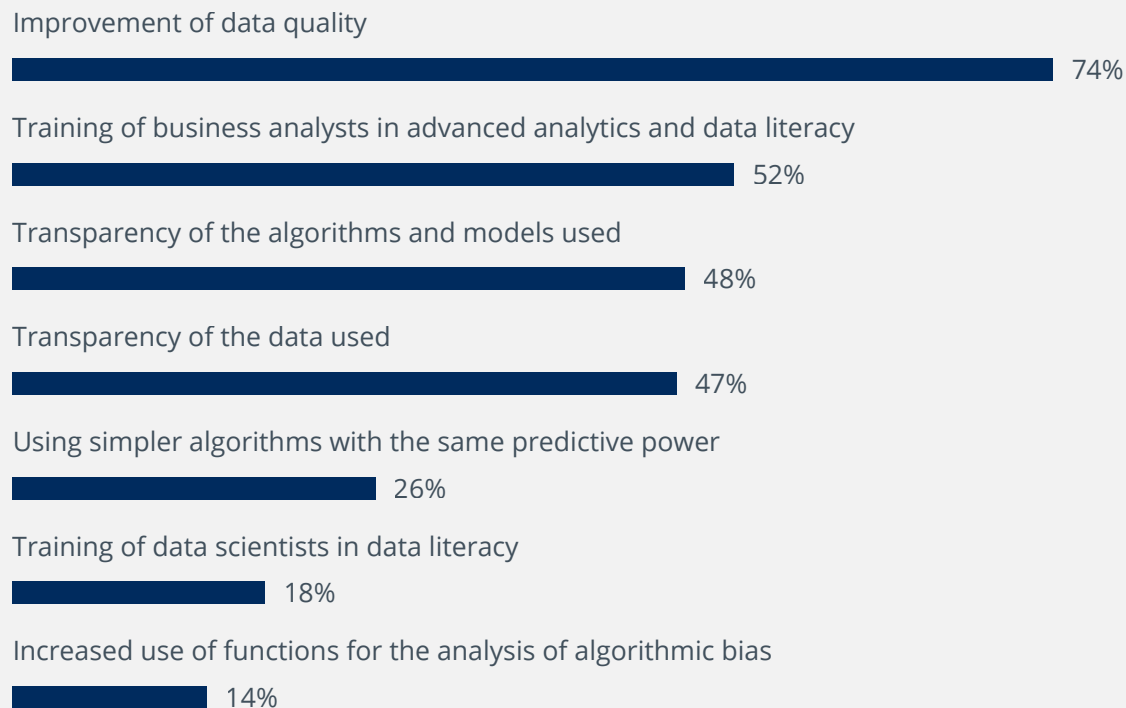The majority of data-based decisions will be automated by systems — 20% / 5%

To what extent do you agree with the following statement in relation to the future of advanced analytics? (n=107), by best-in-class, only showing "strongly agree"

Advanced analytics is here to stay – but data management & analytics literacy must be improved

## TRUST IN AUTOMATED DECISIONS MUST BE ADDRESSED BY IMPROVING DATA QUALITY

Improvement of data quality
74%

Training of business analysts in advanced analytics and data literacy
52%

Transparency of the algorithms and models used
48%

Transparency of the data used
47%

Using simpler algorithms with the same predictive power
26%

Training of data scientists in data literacy
18%

Increased use of functions for the analysis of algorithmic bias
14%

In your opinion, which are the most important aspects in increasing trust in automated decisions? (n=316)

87 percent expect that trust in automated decisions will increase over time. Looking at the requirements to increase trust in automated decision-making, respondents rated improved data quality as the most important factor. Many companies already experience data problems in their business intelligence, so they are aware of the role of ensuring that input data is reliable and complete. Hence, data quality is a major precondition for automating decisions. 74 percent of respondents mentioned this, followed by training of business analysts in advanced analytics (52 percent) and transparency of algorithms and models used (48 percent). Training business analysts in advanced analytics methods is crucial for adoption. Whenever users lack knowledge about analytical concepts, solutions remain a black box to them. Analytical know-how enables users to understand such solutions, their advantages and also their shortcomings, which builds trust in automated decision-making. Using algorithms that create interpretable results and enable users to trace how a decision was drawn from the data at hand is therefore also seen as an important factor in increasing trust in automated decisions.

Best-in-class

Much better

11%

Slightly better

23%

Similar

39%

Slightly worse

19%

Much worse

8%

How would you rate the skills and competencies in advanced analytics at your company compared to your main competitors? (n=284)

We have divided the sample into "best-in-class companies" and "laggard companies" in order to analyze differences in dealing with advanced analytics. This differentiation was based on the question "How would you rate the skills and competencies in advanced analytics at your company compared to your main competitors?". Companies that stated that they were much better in advanced analytics than their competitors are referred to as "best-in-class" (11 percent), while those that stated that they were slightly or much worse in advanced analytics than their competitors are classified as "laggards" (27 percent).
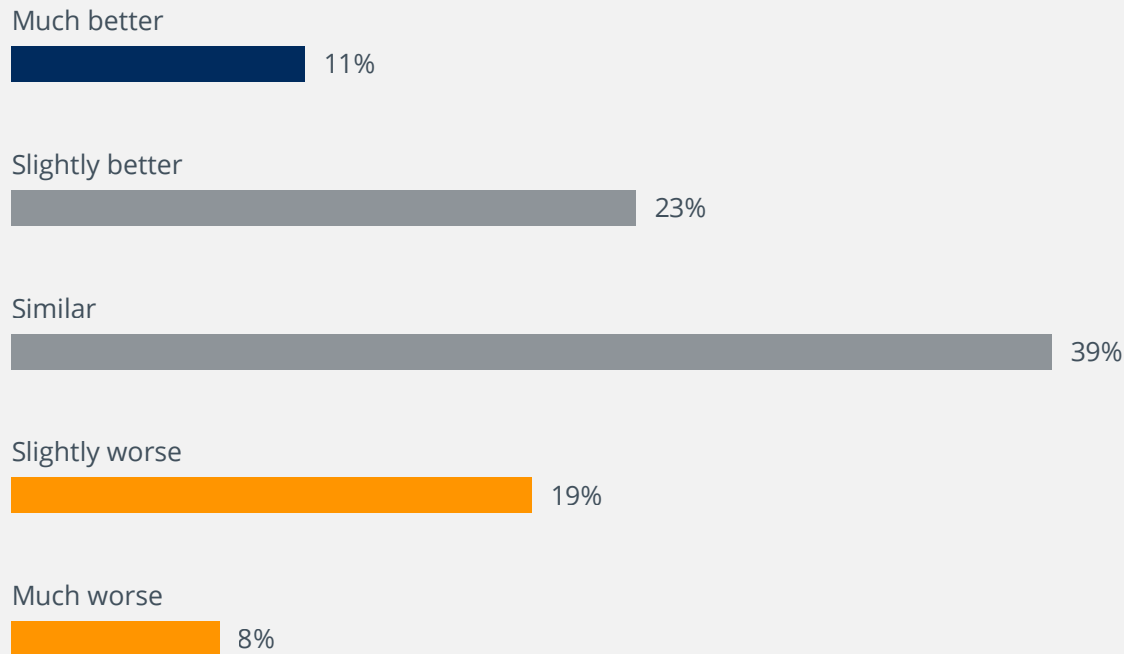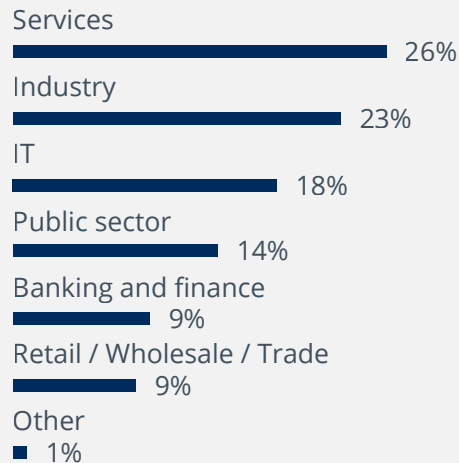
Demographics

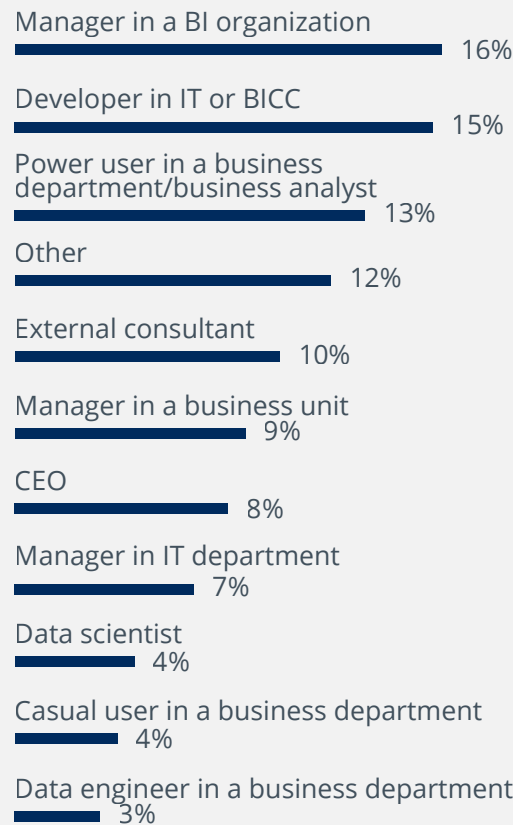## BROAD SPECTRUM OF INDUSTRIES AND COMPANY SIZES

This study was conducted as a worldwide online survey from June to July 2020. The survey was promoted within the BARC panel, via websites and newsletter distribution lists. A total of 317 people took part, representing a variety of different roles, industries and company sizes.
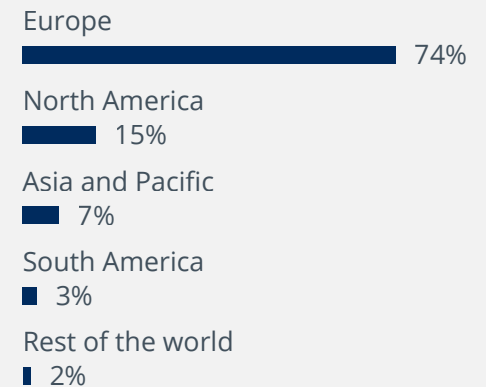
INDUSTRY SECTOR

Services — 26%
Industry — 23%
IT — 18%
Public sector — 14%
Banking and finance — 9%
Retail / Wholesale / Trade — 9%
Other — 1%

Which of the following best describes your organization's industry sector? (n=317)

ROLE

Manager in a BI organization — 16%
Developer in IT or BICC — 15%
Power user in a business department/business analyst — 13%
Other — 12%
External consultant — 10%
Manager in a business unit — 9%
CEO — 8%
Manager in IT department — 7%
Data scientist — 4%
Casual user in a business department — 4%
Data engineer in a business department — 3%

What is your role in the company? (n=317)

REGION

Europe — 74%
North America — 15%
Asia and Pacific — 7%
South America — 3%
Rest of the world — 2%

In which region are you located? (n=317)

COMPANY SIZE

Less than 500 — 36%
500-5,000 — 34%
More than 5,000 — 31%
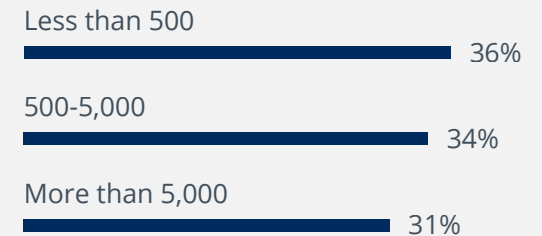
How many employees does your company have? (n=317)

BARC – Making Digital Leaders

**BARC – BUSINESS APPLICATION
RESEARCH CENTER**

BARC is a leading enterprise software industry analyst and consulting firm delivering information to more than 1,000 customers each year.

For over twenty years, BARC analysts have combined market, product and implementation expertise to advise companies and evaluate BI, Data Management, ECM, CRM and ERP products.

A long-running program of market analysis and product comparison studies forms the basis of BARC's comprehensive knowledge of all the leading software vendors and products, as well as the latest market developments and trends.

BARC events provide a focused overview of leading software solutions, trendsetting developments and current requirements, as well as market developments in particular enterprise application categories.

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Sponsor profile Dataiku

ABOUT DATAIKU

Dataiku is one of the world's leading AI and machine learning platforms, supporting agility in organizations' data efforts via collaborative, elastic, and responsible AI, all at enterprise scale. At its core, Dataiku believes that in order to stay relevant in today's changing world, companies need to harness Enterprise AI as a widespread organizational asset instead of siloing it into a specific team or role.

To make this a reality, Dataiku provides one simple UI for data wrangling, mining, visualization, machine learning, and deployment based on a collaborative and team-based user interface accessible to anyone on a data team, from data scientist to beginner analyst.

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Sponsor profile Qlik

ABOUT QLIK

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. Qlik provides an end-to-end, real-time data integration and analytics cloud platform to close the gaps between data, insights and action. By transforming data into active intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships.

The Qlik real-time Data Integration Platform (formerly Attunity) supports your unique data strategy – independent of cloud, service or analytics products. It includes data acquisition, replication, preparation and cataloging, allowing you to take data from raw to analytics-ready. All designed to enable modern data architectures. The Qlik Data Analytics Platform enables the full range of analytics use cases across your organization – from conversational to self-service discovery and even embedded. It also enhances human intuition with automated AI-powered insights and natural language interaction. All built on a multi-

cloud platform that can be consumed in a client-managed or SaaS environment. Data Literacy as a Service is Qlik's approach for customer success, designed to drive a data-informed culture in your business. This includes around-theclock support for all critical issues; personalized and bundled services aligned with your goals; and product-agnostic data literacy consulting and education services. The Qlik end-to-end solution enables the shift from traditional BI – passive BI – which is based on preconfigured, curated sets of data, and designed to inform but not necessarily compel action – to Active Intelligence, which is based on continuous intelligence derived from real-time, up-to-date information, and is designed to take or trigger immediate actions.

Qlik partners with global cloud and platform providers such as AWS, Microsoft Azure and Google Cloud, as well as organizations like Snowflake, Databricks and Confluent in delivering data warehouse automation, data lake automation and Kafka/streaming integration, with continued expansion with global systems integrators like Accenture and Cognizant. Qlik does business in more than 100 countries and serves over 50,000 customers around the world.

Qlik

LEAD WITH DATA

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Sponsor profile Tableau

ABOUT TABLEAU

Tableau (NYSE: DATA) helps people and organizations become more data-driven as the trusted leader in analytics. The Tableau platform provides the breadth and depth of capabilities to serve the needs of even the largest global enterprises in a seamless, integrated experience. Tableau is designed to fit, not dictate your data strategy, and adapts to your environment with unmatched flexibility and choice, while meeting the toughest governance and security requirements. People love using Tableau because it is both powerful and intuitive - and offers a fundamentally different user experience by empowering people of all skill levels to explore and analyze data using visuals and natural language. Tableau has become the standard language of analytics for modern business users and continues to lead the industry with the most passionate and engaged user community in analytics, a customer base with millions of users at more than 86,000 organizations, and a deep commitment to customer-focused innovation.

Designed for the individual, scaled for the enterprise

Tableau is the most powerful, secure, and flexible end-to-end analytics platform. Equip your people with smart, visual, and direct access to their data for every step of the analytics journey. Our flexible architecture means it will work in your environment and with your data.

Only Tableau combines a laser focus on how people see and understand data with the kind of robust, scalable platform needed to run the world's largest organizations.

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When you pair smart and curious people with trustworthy data, data comes to life and becomes your competitive edge.

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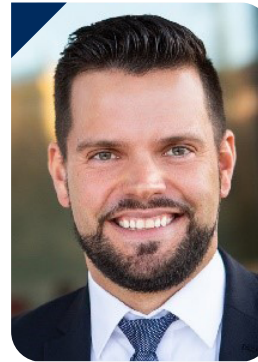
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