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2024 Finland Business Intelligence (BI) Industrial Report

Pan-Finland Industrial Survey Report

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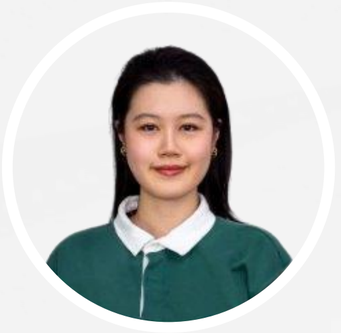
Contents

Report Compilers



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1 Overview of Analytics Use

Pan-Finland Industrial Survey

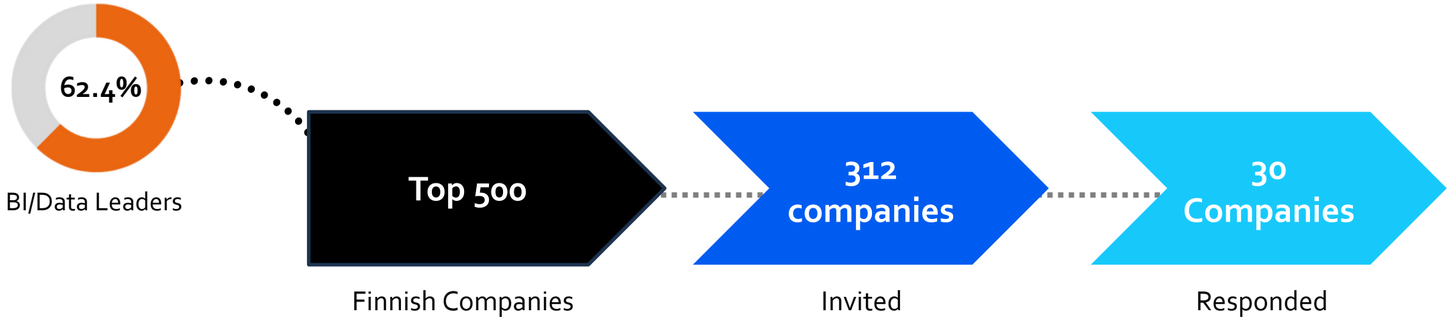
BI as a new driver for business growth!

We invited data or business intelligence (BI) leaders from Finland's 500 largest companies based on revenue in 2023 to participate in survey. The goal was to understand how BI is utilized in companies' business operations.

- From the 500 companies surveyed, **312** were identified as having BI, data, or IT leaders, including professionals in roles such as data analysts, data scientists, business intelligence specialists, data engineers, data leaders, or business strategists.
- Out of these, **30** companies with BI, data, or IT leadership participated in the study. **Very large or large companies** dominate the samples of the study: among the participating companies: **11** have over 1,000 employees, **13** have between 250 and 1,000 employees, **5** have between 50 and 249 employees and **1** has between 10 and 49 employees.
- About **53%** of the participating companies focus on mainly B2B, with **10%** focusing mainly on B2C. The remaining **36%** of the participating companies are doing both B2B and B2C businesses.
- **40%** of these companies have been operating for over 20 years, reflecting a mix of established enterprises and newer entrants actively leveraging BI and data management practices.

This diverse sample provides insights into the state of BI and data-driven practices across Finnish businesses of varying sizes and tenures.

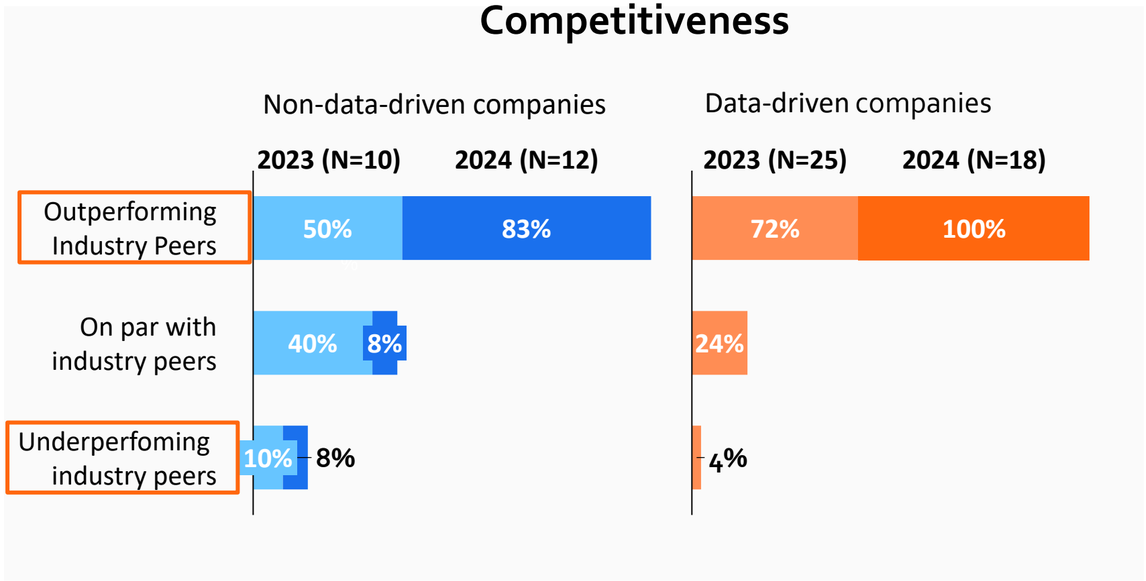
62.4% (N=312) of Top 500 Finnish companies have BI or Data Leaders

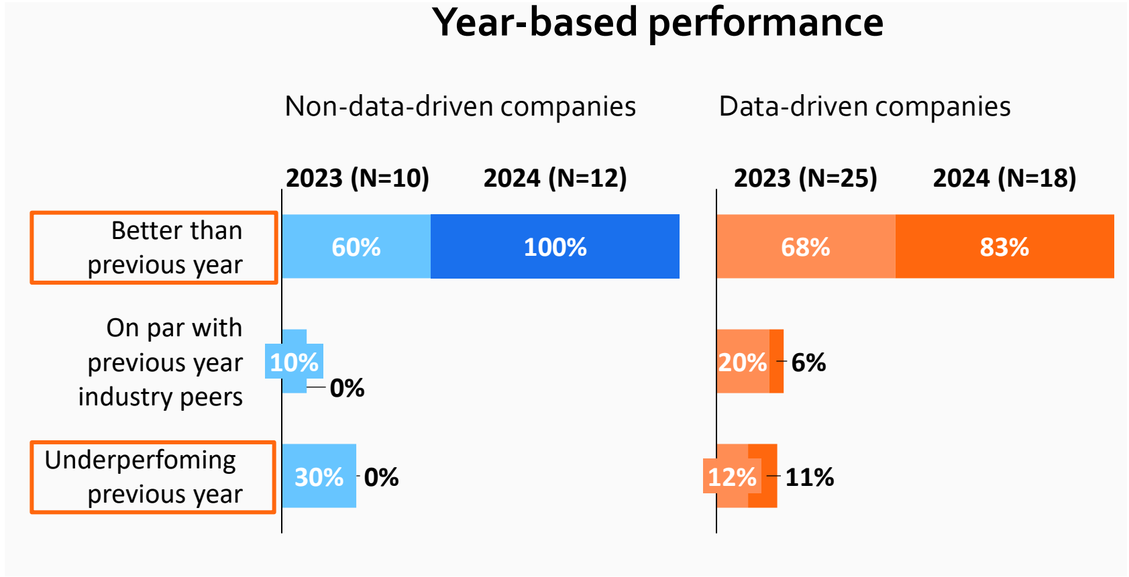


*The companies were identified through a LinkedIn search based on the available information of BI or Data leaders.
Additionally, in cases where LinkedIn did not provide the information, company websites were investigated as an alternative source.

Data-Driven Practices For Competence

Being data-driven is the key to outperforming industry peers, but it is not the only way to achieve better performance. In 2024, most of the surveyed Finnish companies - regardless of whether data-driven or non-data-driven - improved their performances compared to the previous year, but data-driven companies gained competitiveness over peers.



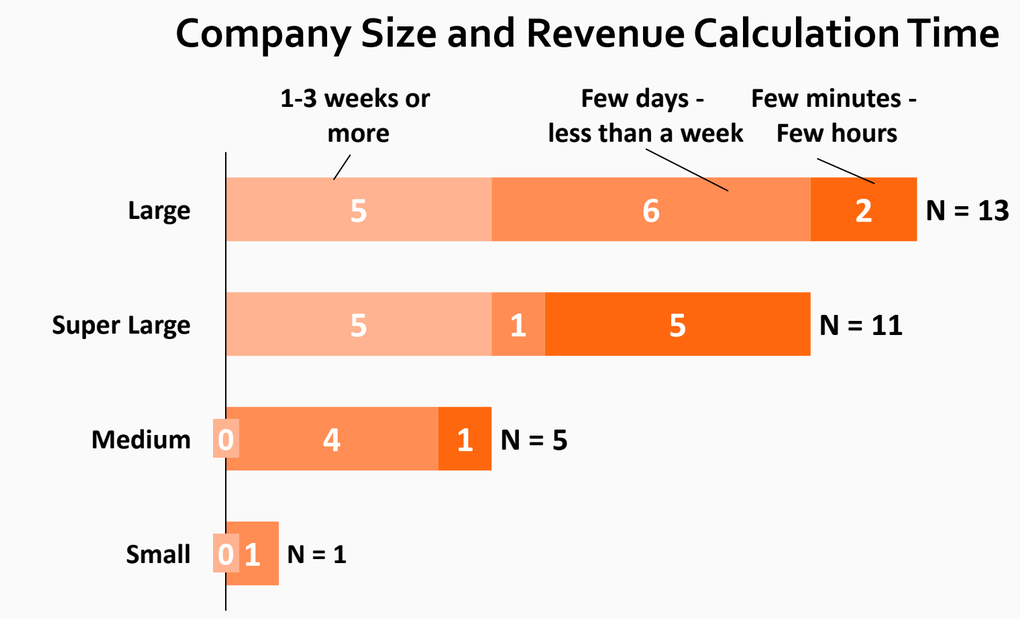


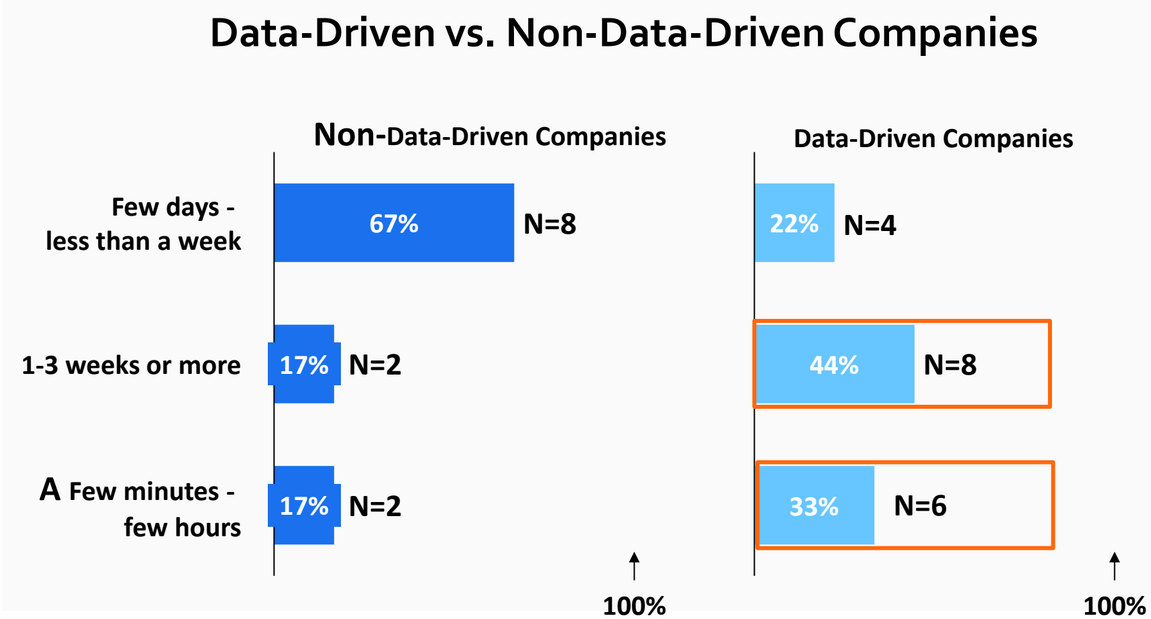
Note: Not all respondents answered the questions

In 2024, 83% of companies reported improved business performance compared to the previous year, a significant increase from 68% in 2023. Adopting a data-driven approach is not the sole strategy for enhancing business performance, as (100%) non-data-driven companies also saw an improvement over their previous year's performance. Nonetheless, the impact of a data-driven approach on competitive positioning is undeniable. According to the 2024 survey, 100% of data-driven companies outperformed their industry peers, a substantial rise from 72% in 2023. Therefore, it is important to leverage data-driven strategies to sustain competitive advantage in the market.

Analytic Capacity for Fundamental Tasks

Revenue calculation speed is a good indicator of a company's data-driven capacity.





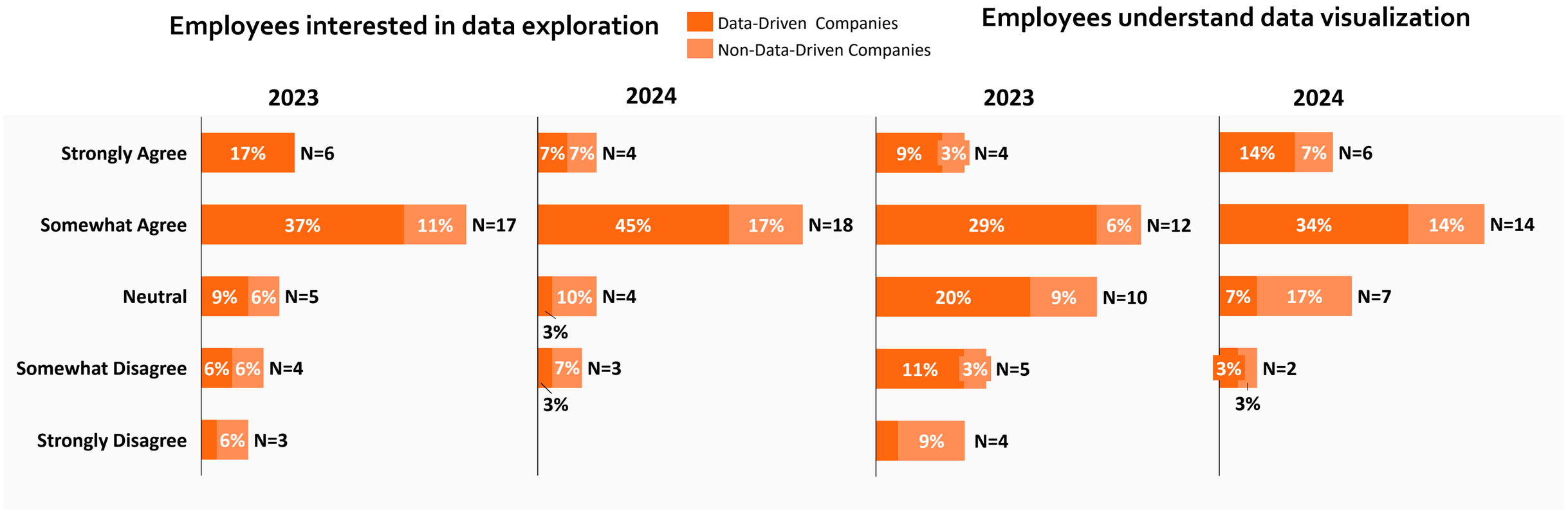
Note: Not all respondents answered the questions

Being a large or super-large company does not necessarily equate to poor data-driven capabilities that cause delays in calculating business revenue. 45.5% of super-large companies can compute revenue within minutes or hours. Among the surveyed companies, 26.7% calculate their revenue within hours, while 40% do so within a few days or less than a week. However, 33.3% take 1-3 weeks or longer, highlighting inefficiencies in their processes. When comparing data-driven and non-data-driven companies, it is evident that robust data practices enhance operational efficiency. For instance, 33.3% of data-driven companies complete revenue calculations within a few hours, compared to 17% of non-data-driven companies. Despite these advancements, there is still room for improvement. Notably, 44% of data-driven companies require 1-3 weeks or more to finalize their revenue calculations, indicating the need to improve their data infrastructure and capabilities further.

Employee Engagement

Employees at Finnish companies show a growing interest in data exploration and possess an understanding of data visualization.

Among surveyed Finnish companies, **75.9%** report employee interest in data exploration, an increase from **65.7%** in 2023. Additionally, **69%** indicate that their employees understand data visualization, up from **45.7%** in 2023. This reflects a growing awareness of the importance of data ability and the ability to interpret data visualizations among employees and companies. However, a disparity remains between data-driven and non-data-driven companies regarding employees' interest in and capacity for data exploration and visualization.



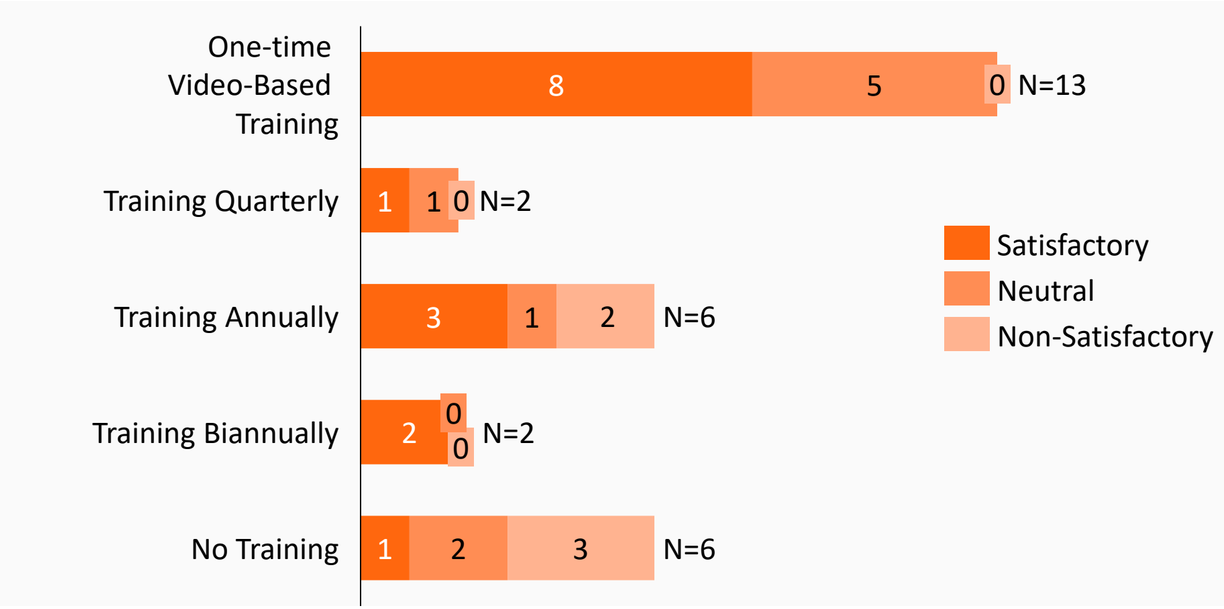
Note: Not all respondents answered the questions

Data Literacy

BI leaders reported that most employees show interest in data exploration and possess an understanding of data visualization.

51.7% of BI leaders express satisfaction with their employees' data literacy, with **31%** neutral and **17.2%** dissatisfied, highlighting mixed perceptions of data literacy levels across organizations, and most of the companies provided a data literacy training program by **one-time video-based training**. Interestingly, no company using the one-time video-based training method reports dissatisfaction with employees' data literacy. Additionally, organizations where the advanced analytics team demonstrates a strong understanding of business processes report a higher likelihood of satisfaction with data literacy. This underscores the role of analytics teams in enhancing the effectiveness of data-driven initiatives and fostering a culture of data literacy throughout the organization.

Data Literacy Satisfaction and Training Program



16% of companies' advanced analytics team do **NOT** understand the company business processes well.

Note: Not all respondents answered the questions

Data-driven Operations and Strategies for Competitiveness

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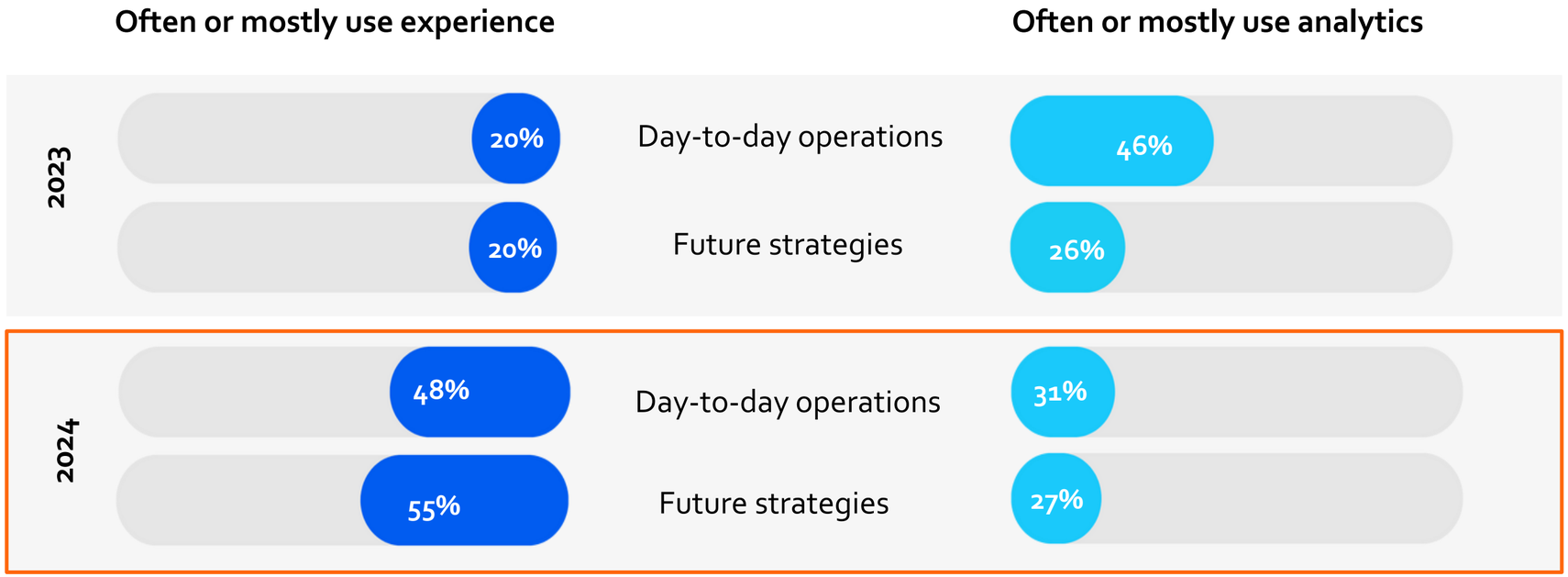
Experience-based decision-making remains common in Finnish companies. However, **31%** and **27%** of companies frequently use analytics for day-to-day operations and future strategies, respectively. Despite this, **48%** and **55%** rely primarily on experience for both operational and strategic decision-making. The comparison shows differences between responses from the 2023 study and the current survey results.



The increase in experience-based and decrease in analytics-based decision-making does not represent a change within the same sample of companies, as different companies may have participated in 2024. Nonetheless, this shows a disparity that companies' belief about being data-driven and the facts of often use experience for important decision-making.

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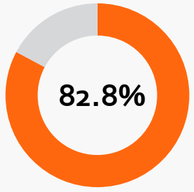
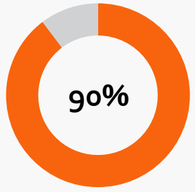
2 Data Culture and BI Structure

Data Culture Change 2023 vs 2024

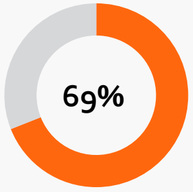
Substantial improvement in the data platform and data culture building in 2024 compared to 2023!



Data as critical asset



Identifiable and accessible data platforms



Tolerance for failure

Data culture is improved across nearly every indicators comparing **2024** with **2023**! In **2024**, the most notable cultural improvement can be found in encouraging experimentation of new ideas (**89.7%**), making data platform/tool identifiable and available (**89.7%**), using data to drive innovation (**86.2%**), encouraging ethic and responsible data use (**79.3%**), data-driven initiative (**75.9%**) and tolerance for failure (**69%**).

Opportunities to Strengthen Innovative Culture

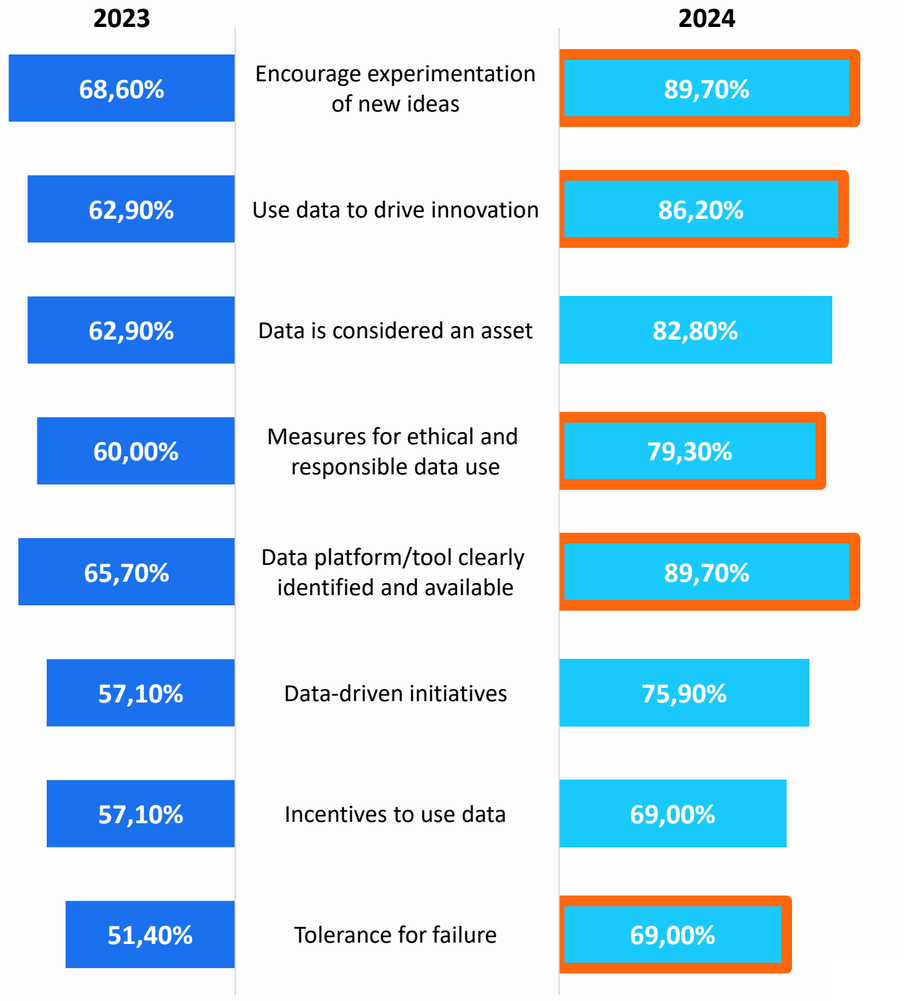
90%

Encourage experimenting new ideas

69%

Have a good tolerance for failure with the experimentation

Analytics usage in 2023 vs. 2024

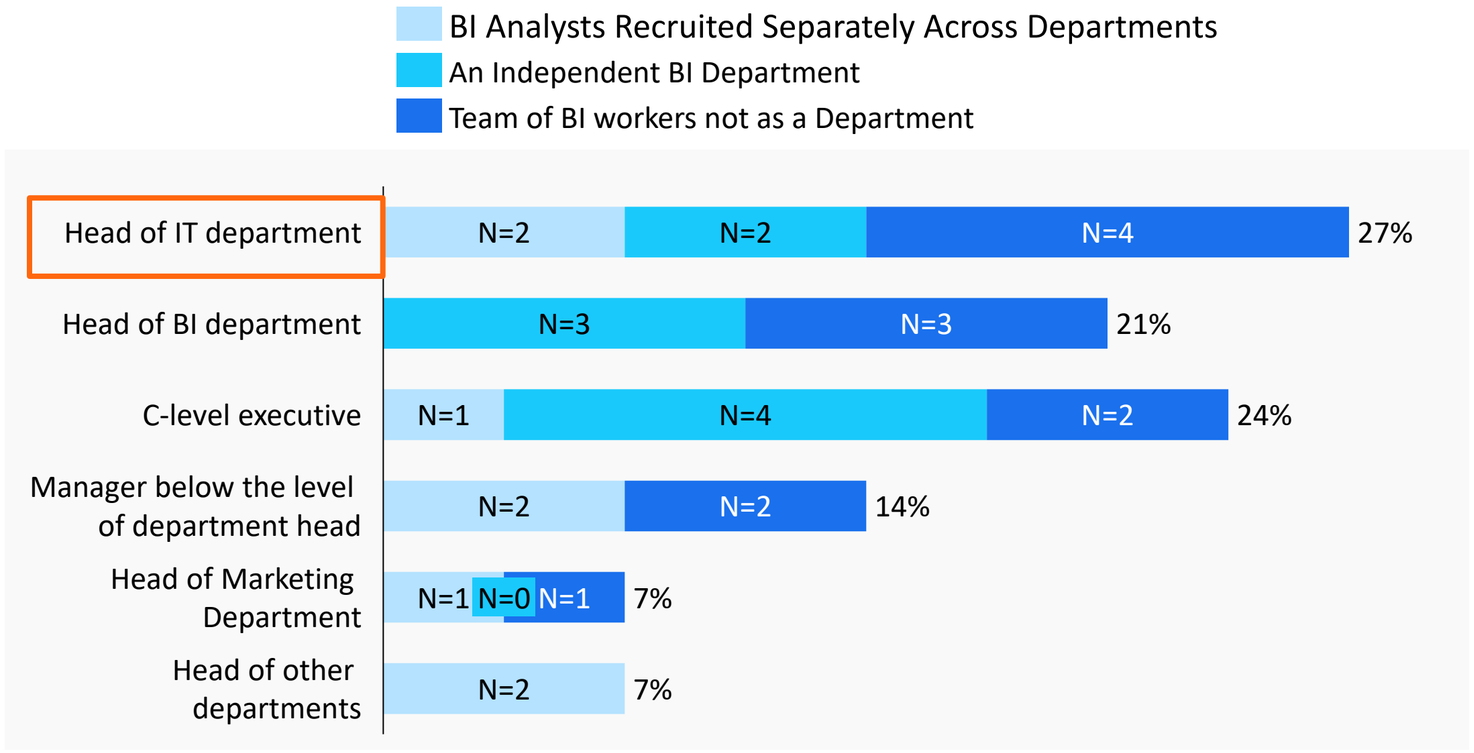


Leadership in Business Intelligence

Specialized BI leadership becomes crucial as data infrastructure matures.

Among the surveyed companies, **24%** rely on C-level executives to lead BI practices, while **21%** have a dedicated BI department head. Additionally, **41.4%** delegate BI leadership to IT heads, marketing department heads, or other departmental managers. For companies with underdeveloped data infrastructure, it is effective to have IT or other departments take the lead in BI initiatives. However, as data infrastructure improves, it becomes essential to transition to specialized BI leadership to harness the potential of business intelligence practices fully.

BI Operations Leaders and BI Team Structures (sample N=29)



93% of companies' employees outside BI department engage with BI tools for their work.

27.6% of companies' BI department is not integrated with other functional departments.

Note: Not all respondents answered the questions

Comparison of Data Culture and BI Department Structure

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A centralized BI department has advantageous over decentralized BI structure or team-based BI structure.

A centralized BI department is shown to have more merits in building data capacity and data-driven cultures. A decentralized BI structure or team-based BI structure are associated with disadvantages and challenges in building data capacity and data-driven cultures, which are less tolerance for failure, less likely to incentive the data use for decision-making and the use of real-time analytics.

Incentivizing the data use	Yes	Neutral	No
An Independent BI Department	20.69%	10.34%	0.00%
BI Analysts Recruited Separately Across Departments	17.24%	0.00%	**10.34%**
Team of BI workers but not as a Department	31.03%	6.90%	**3.45%**

Incentivizing the use of real-time analytics	Yes	Neutral	No
An Independent BI Department	17.24%	13.79%	0.00%
BI Analysts Recruited Separately Across Departments	10.34%	6.90%	**10.34%**
Team of BI workers but not as a Department	27.59%	3.45%	**10.34%**

Tolerance for failure	Yes	Neutral	No
An Independent BI Department	24.14%	0.00%	6.90%
BI Analysts Recruited Separately Across Departments	13.79%	0.00%	**13.79%**
Team of BI workers but not as a Department	31.03%	6.90%	**3.45%**

Note: Not all respondents answered the questions

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3 Data Quality and Data Project

Data Quality Strategies and Satisfaction

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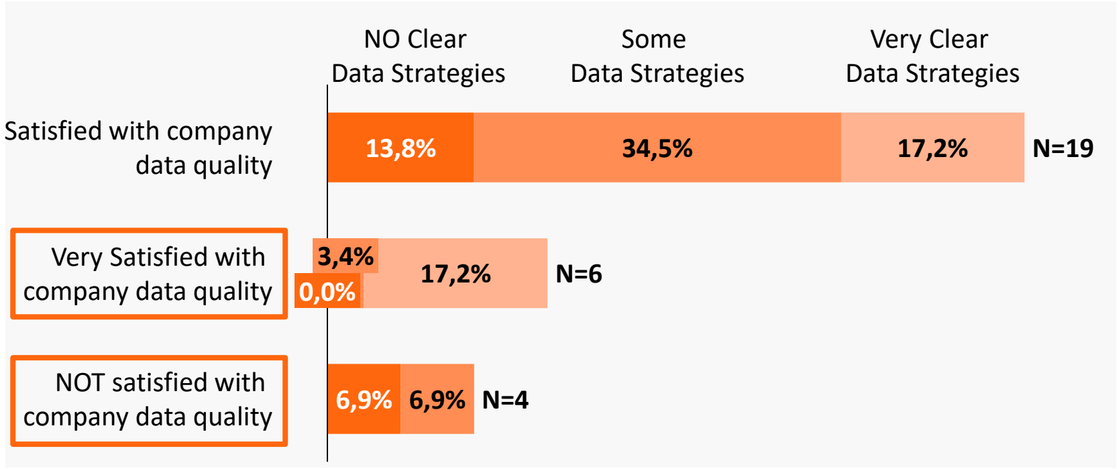
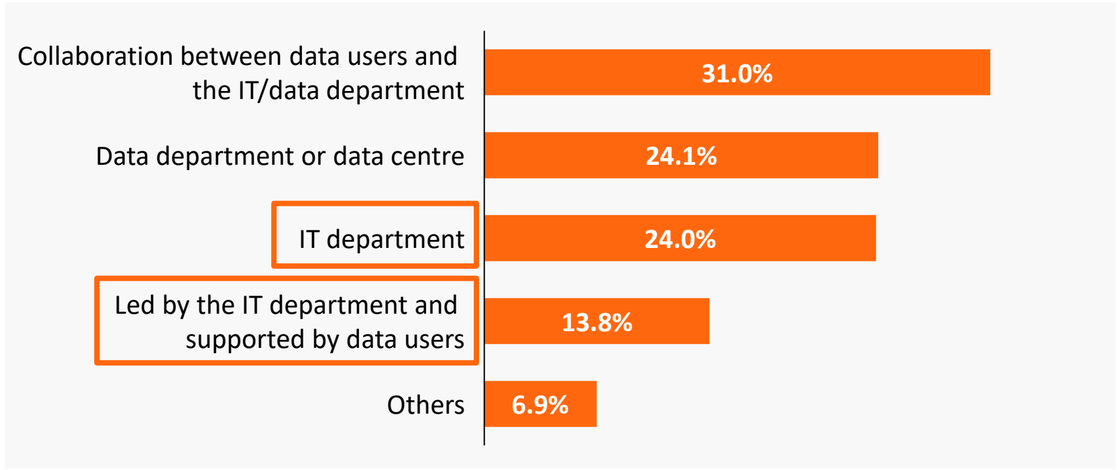
Data Strategies and Perceptions of Data Quality



Department Responsible for Data Quality



Note: Not all respondents answered the questions

Surveyed companies show varying levels of commitment to data quality practices.

- **34.5%** have very clear data quality strategies and **44.8%** have some strategies in place, **20.7%** lack clear strategies. **13.7%** (N = 4) of companies express dissatisfaction with their data quality and do not have clear strategies in place or some data strategies.
- Companies with well-defined data quality strategies tend to be either very satisfied or satisfied with their data quality, highlighting the importance of strong data quality frameworks for ensuring consistency and reliability in business intelligence.

Among the participant companies, many data quality projects are led by the IT department.

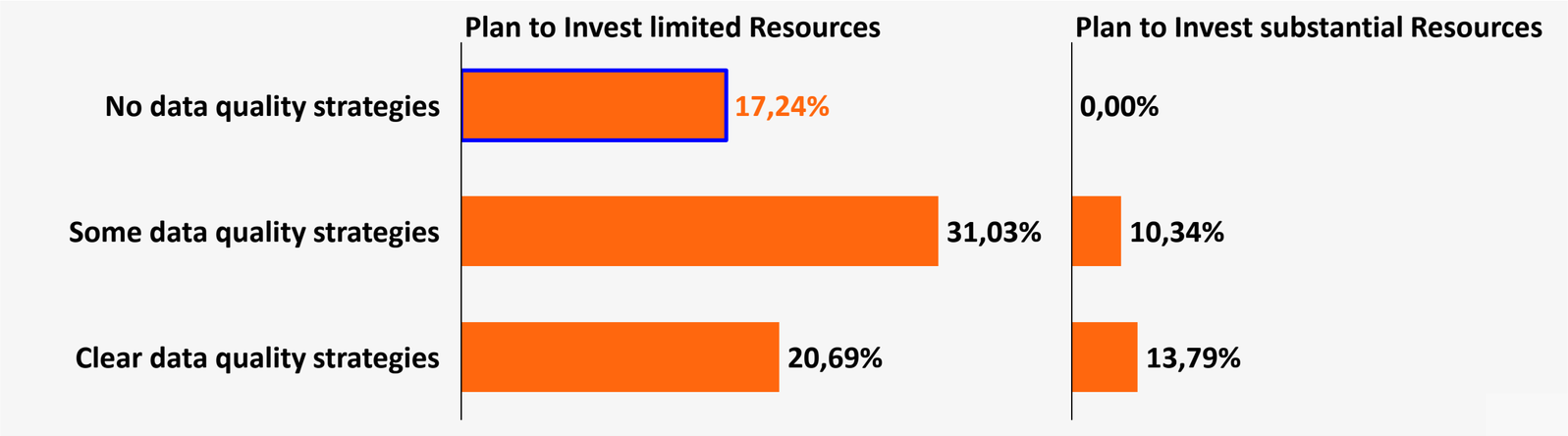
- **37.8%** companies place IT department in a leading role in data quality projects, where data users may play a supportive role. This approach has a high risk of failure!
- For the **24.1%** companies that rely on data department or data centre to mange data quality project, it is important to note that collaboration with data users, other than technology, will be the key to success!

Data Quality and Investment Plan

Enterprises will continue investing in improvement enterprise data quality irrespective of their current data quality!

The importance of data quality has attracted companies' attention! They will invest resources in further improving their data quality, irrespective of their current data quality level. Nonetheless, only companies with some or clear data quality strategies will invest substantial resources. **17.24%** of companies without data quality strategies will only invest limited resources.

	No Plan to Invest	Invest Limited Resources	Invest Substantial Resources
Not satisfied with data quality	0.0%	11.1%	3.7%
Satisfied with data quality	3.7%	33.3%	25.9%
Very satisfied with data quality	0.0%	18.5%	3.7%

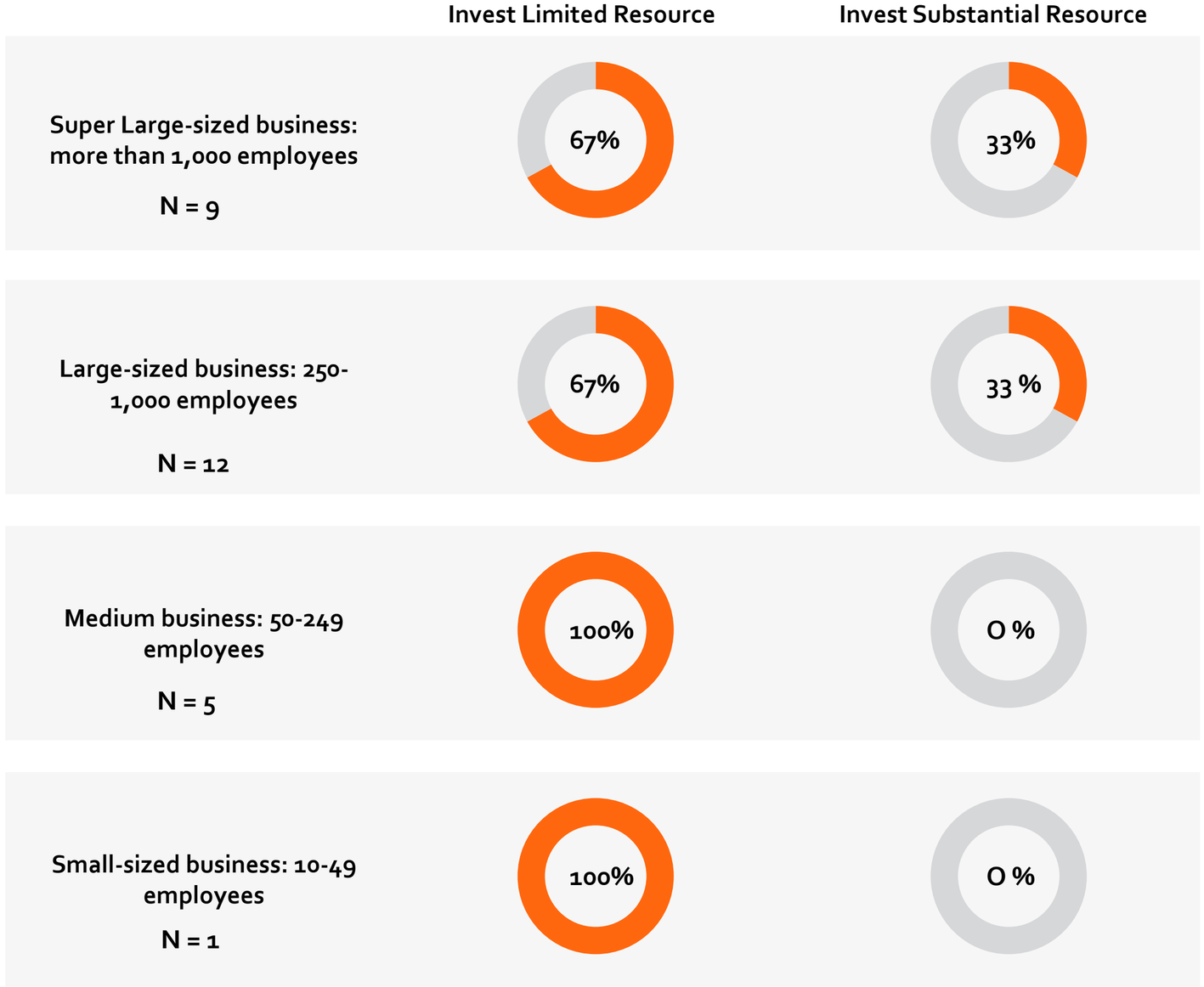


Note: Not all respondents answered the questions

Company Size and Data Quality Investment Plan

Large companies are more interested in investing in improving data quality. **33%** of large-sized or super large-sized businesses in Finland plan to invest substantial resources in improving their data quality. However, **none** of the medium- or small-sized businesses plan to invest substantial resources in their data quality.

In addition, **30%** of companies with over 20 years of history and **37.5%** of companies with 10-20 years of history plan to invest in their data quality in 2025. However, for companies with less than 10 years of history, only **11.1%** plan to invest.



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4 KPIs and OKRs

KPIs as Performance Indicators

Companies with well-defined Key Performance Indicators (KPIs) are likelier to show improved performance than the previous year.

More and more Finnish companies are adopting KPIs for performance indicators comparing 2023 (48.6%) and 2024 (82.1%) data. This shows a positive impact on company performance. It is highly recommended that Finnish companies establish clear KPIs to measure and drive their business objectives effectively!

17 companies in 2023 (48.6%)

Well-Established KPIs	Performance Over Last Year: Better than last year (2023)	On par with last year	Underperformed compared to last year (2023)
We have	23 companies (82.1%)	0 companies	**2 companies**
Neutral	**2 companies**	0 companies	0 companies
We do not have	**1 company**	0 companies	0 companies

OKRs as Performance Indicators

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Companies with well-established Objectives and Key Results (OKRs) are likelier to show improved performance than the previous year. 42.9% of companies used OKRs as performance indicators and in 2024, it increases to 60.7%.

The use of similar performance indicators of OKR can also improve companies' business performance!

15 companies in 2023 (42.9%)

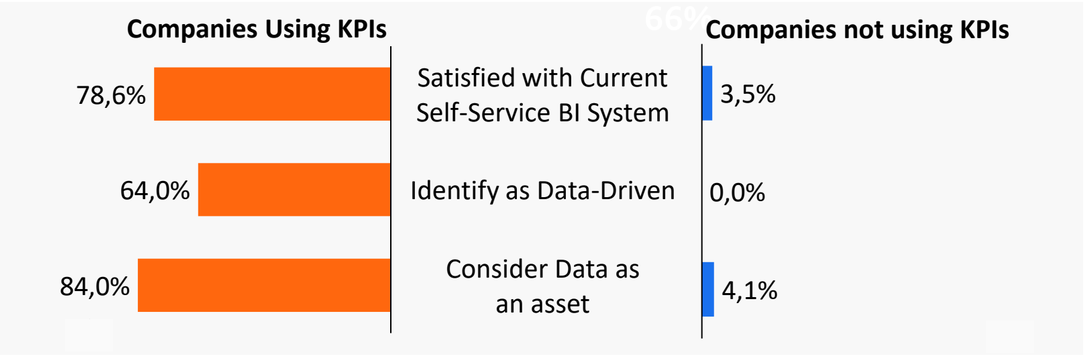
Well-Established OKRs	Performance Over Last Year: Better than last year (2023)	On par with last year	Underperformed compared to last year (2023)
We have	17 companies (60.7%)	0 companies	0 companies
Neutral	5 companies	0 companies	2 companies
We do not have	4 companies	0 companies	0 companies

Comparison of KPIs and OKRs

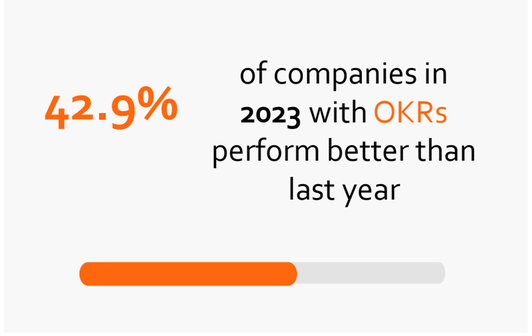
Increasing adoption KPIs and of OKRs reflect a shift toward aligning operational performance with strategic goals.

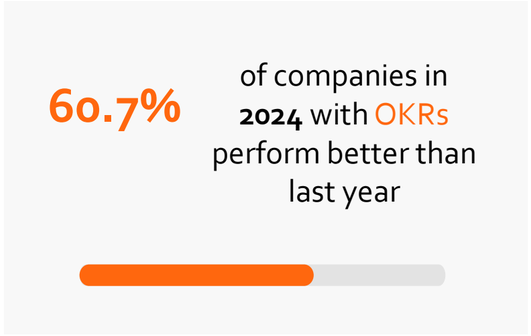
Companies using KPIs or OKRs are likelier to report better performance than the previous year. These companies also express higher satisfaction with their current self-service BI systems, indicating an alignment between performance-tracking tools and decision-making needs. Businesses leveraging KPIs and OKRs are likelier to consider themselves data-driven and view data as a critical asset, underscoring the role of goal-setting in fostering a data-centric culture.

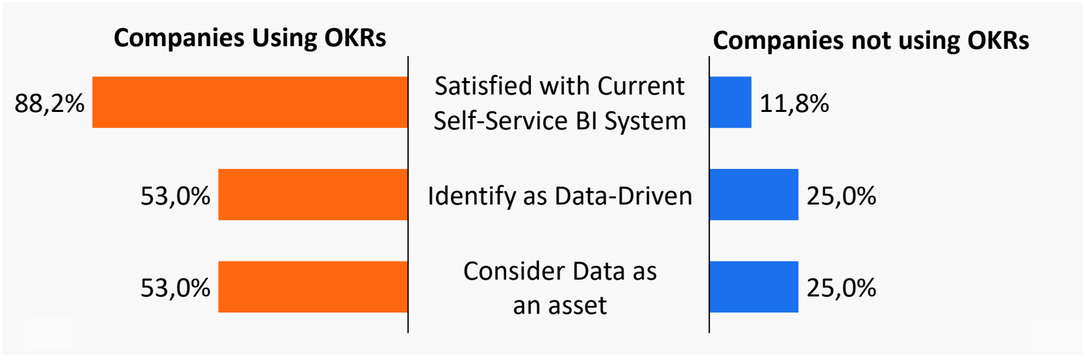
Key Performance Indicators (KPIs)



Objectives and Key Results (OKRs)







Note: a number of companies answer "Neutral" about their use of KPIs or OKRs, thus the sum of companies using or not using KPIs does not equal 100.

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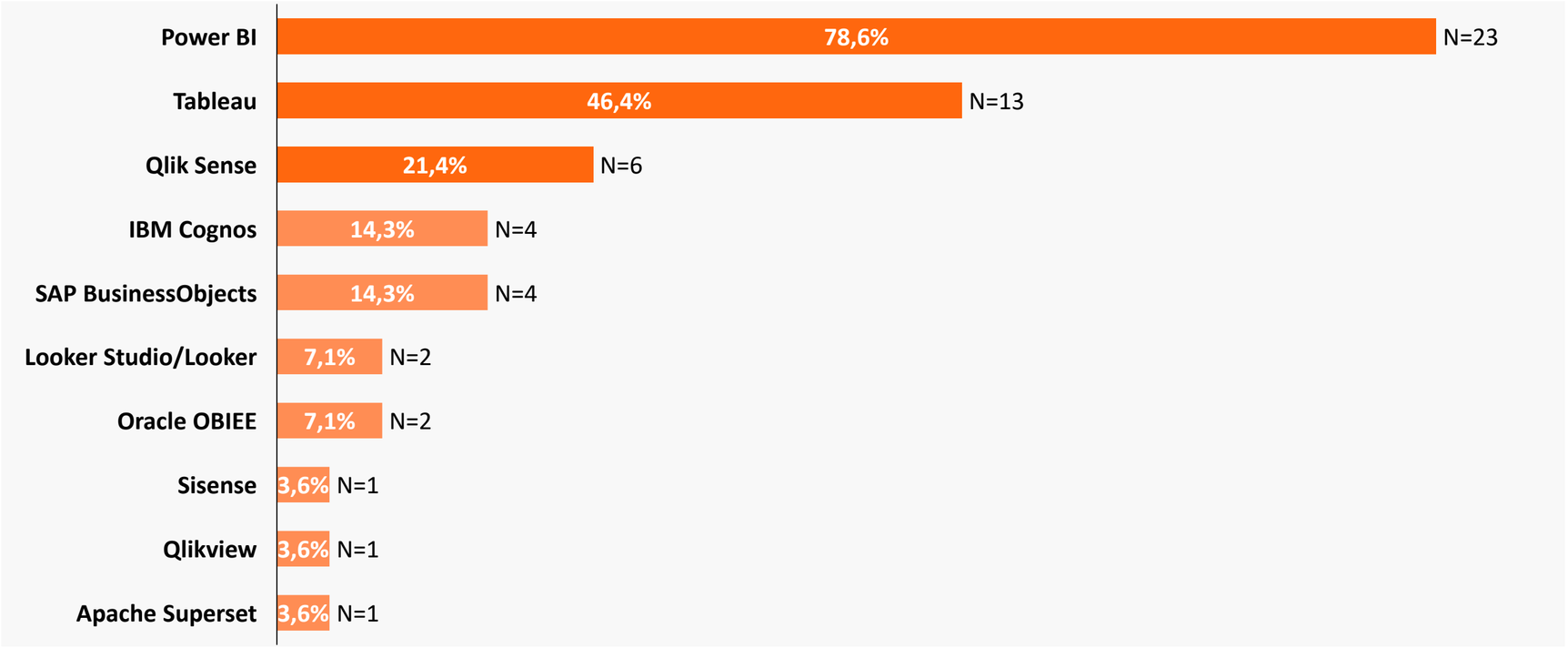
5 Self-Service BI Tools

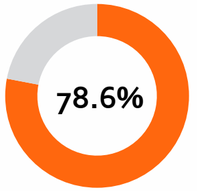
Adoption of Self-Service BI Tools

Self-service BI tools are widely adopted by Finnish companies to support their business intelligence efforts.

On average, companies use **two** different BI tools, with some utilizing **three or four** simultaneously. Power BI is the most commonly used tool, followed by Tableau and Qlik Sense. Other tools, such as IBM Cognos and SAP BusinessObjects, are also employed, reflecting the diverse BI needs of Finnish businesses. Utilizing many BI tools within a company is not a good sign for effective BI management – we recommend companies to reduce the number of BI tools used within a company.

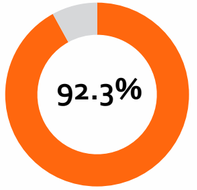
Self-service BI Tool Usage in Participated Companies





N = 22

Companies report satisfaction with Power BI



N = 13

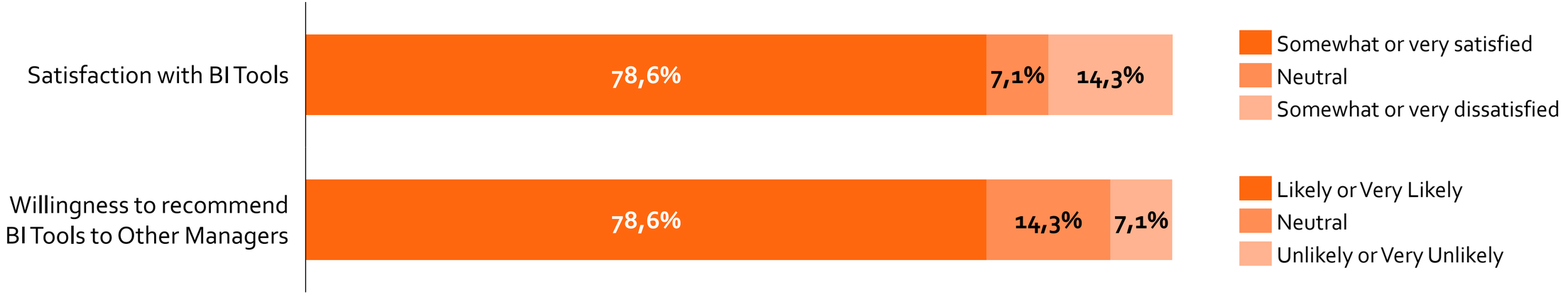
Companies report satisfaction with Tableau

Note: 28 respondents answered this question.

Satisfaction and Recommendations for BI Tools

Finnish companies are showing increasing satisfaction with their BI tools.

78.6% of respondents express satisfaction in 2024, seeing a 15.7% improvement compared to 2024; 78.6% are willing to recommend their tools to managers, representing a 18.6% increase from last year.



While overall satisfaction is high, 14.3% of companies are dissatisfied, and 7.1% hesitate to recommend their tools. This suggests opportunities for improvement in user experience and tool effectiveness. As companies' BI needs grow, existing tools may struggle with usability, integration, and scalability. Many are likely seeking ways to enhance their BI ecosystems for real-time insights and advanced analytics.

Note: 28 respondents answered this question.

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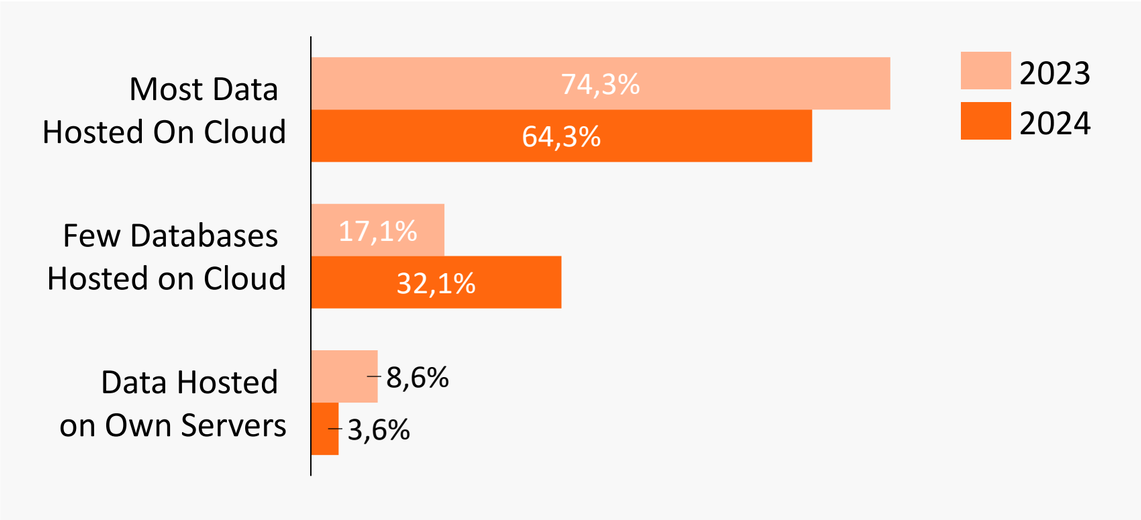
6 Advanced Technologies

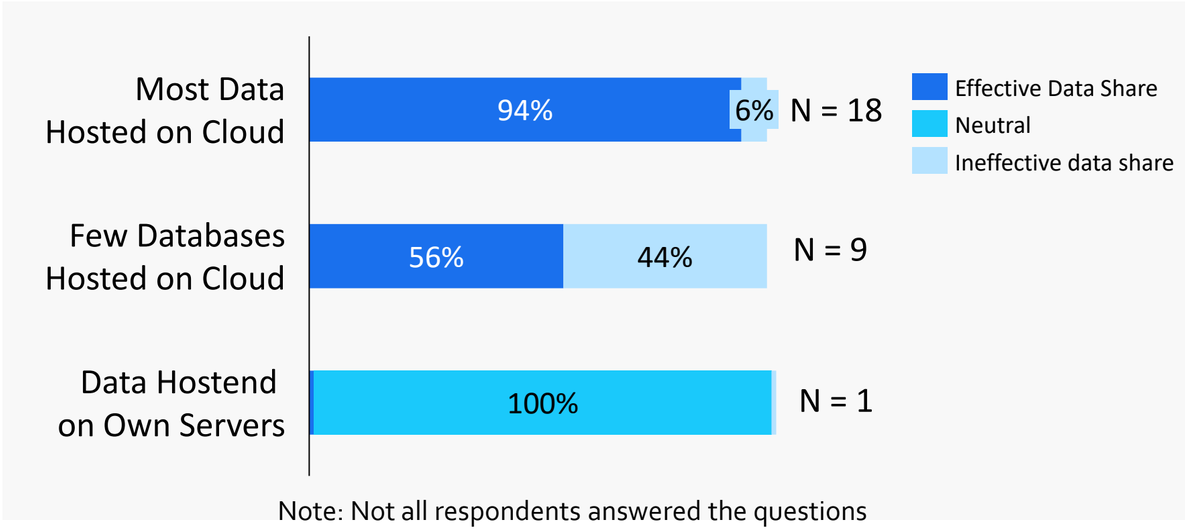
Adoption of Cloud Technology for Data Hosting

Finnish companies widely utilize cloud technology for enterprise data hosting.

Use of Cloud Solutions in 2023 vs 2024



Use of Cloud Solutions and Effectiveness of Data Sharing in Surveyed Companies (2024)



Note: Not all respondents answered the questions

Among the surveyed companies, **64.3%** host the majority of their data on the cloud, while **32.1%** use the cloud for a few databases. In contrast, only **3.6%** rely primarily on their own servers. Compared to 2023, more companies implemented a few data based on cloud, but not most of their database.

Finnish companies hosting most of their data on the cloud agree (**94.4%**) that data sharing is effective, compared to **55.6%** of those with partial cloud usage and none of those relying solely on on-premises servers.

Use of Machine Learning and AI in Finnish Companies

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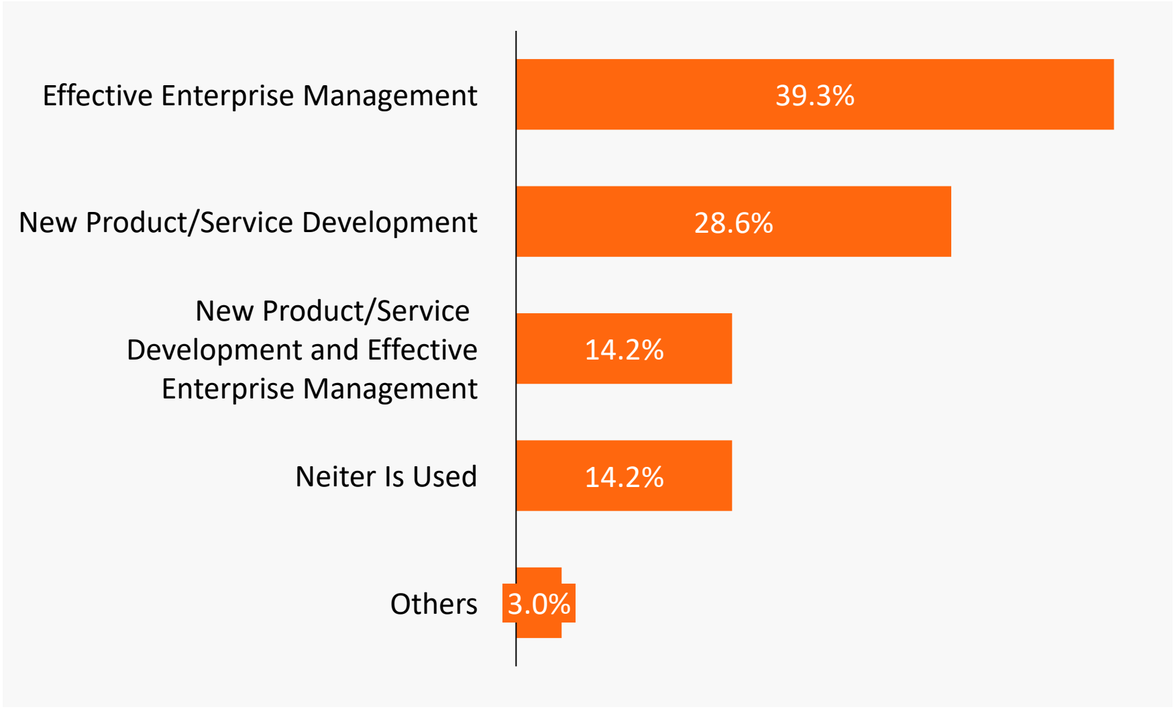
Machine learning (ML) and artificial intelligence (AI) are primarily used by Finnish companies for new product or service development and enterprise management. Among surveyed companies, **28.6%** apply ML and AI for product or service innovation, while **39.3%** leverage these technologies for management purposes. Additionally, **14.2%** utilize ML and AI for both applications, whereas **14.2%** have yet to implement these technologies, highlighting room for further adoption. **17.2%** of companies do not request their data scientists to understand the company's business processes, which may not be a wise strategy.

Machine Learning and AI use in companies



16% Of the companies personnel in advanced analytics teams do **NOT** understand the company business process well.

17.2% Of the companies do **NOT** request their data scientists to understand the business processes.

Note: Not all respondents answered the questions

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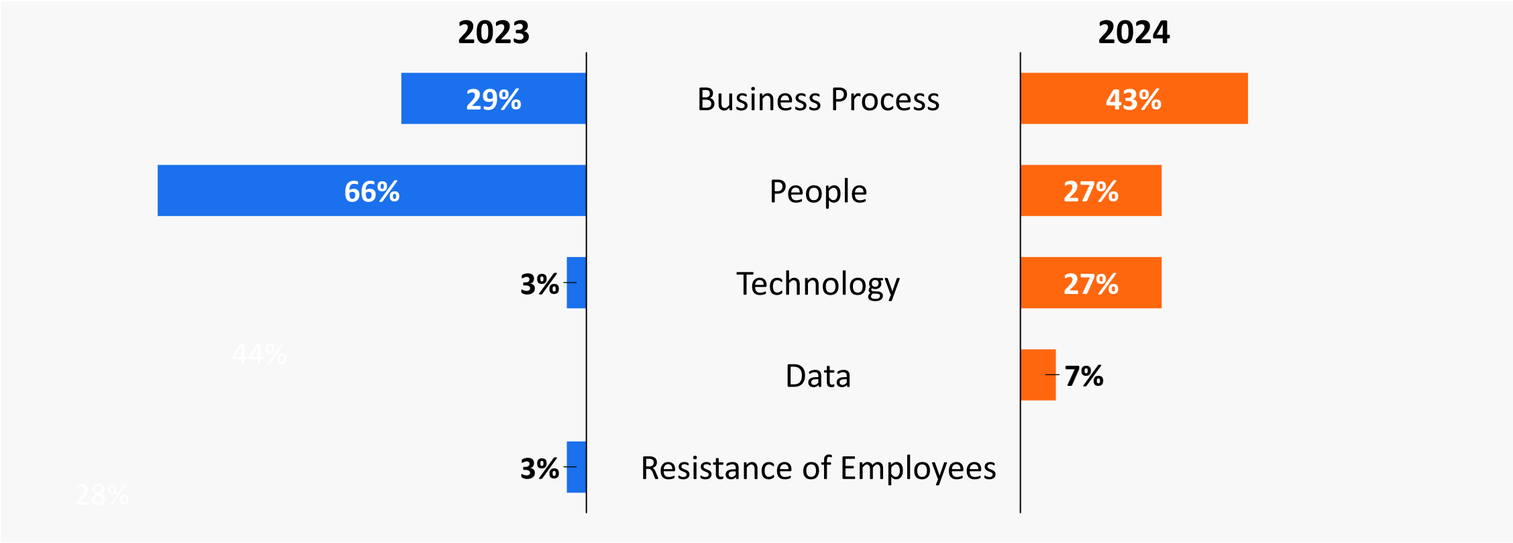
7 Key Barriers

Primary Obstacles to Become More Data-Driven

Business processes and people are the primary obstacles hindering data utilization.

According to 2024 results, an alarming **43%** of surveyed companies disclose business processes as the main obstacle to becoming more data-driven, followed by people and technology (**27%** respectively). However, resistance from data (**7%**) received only limited votes.

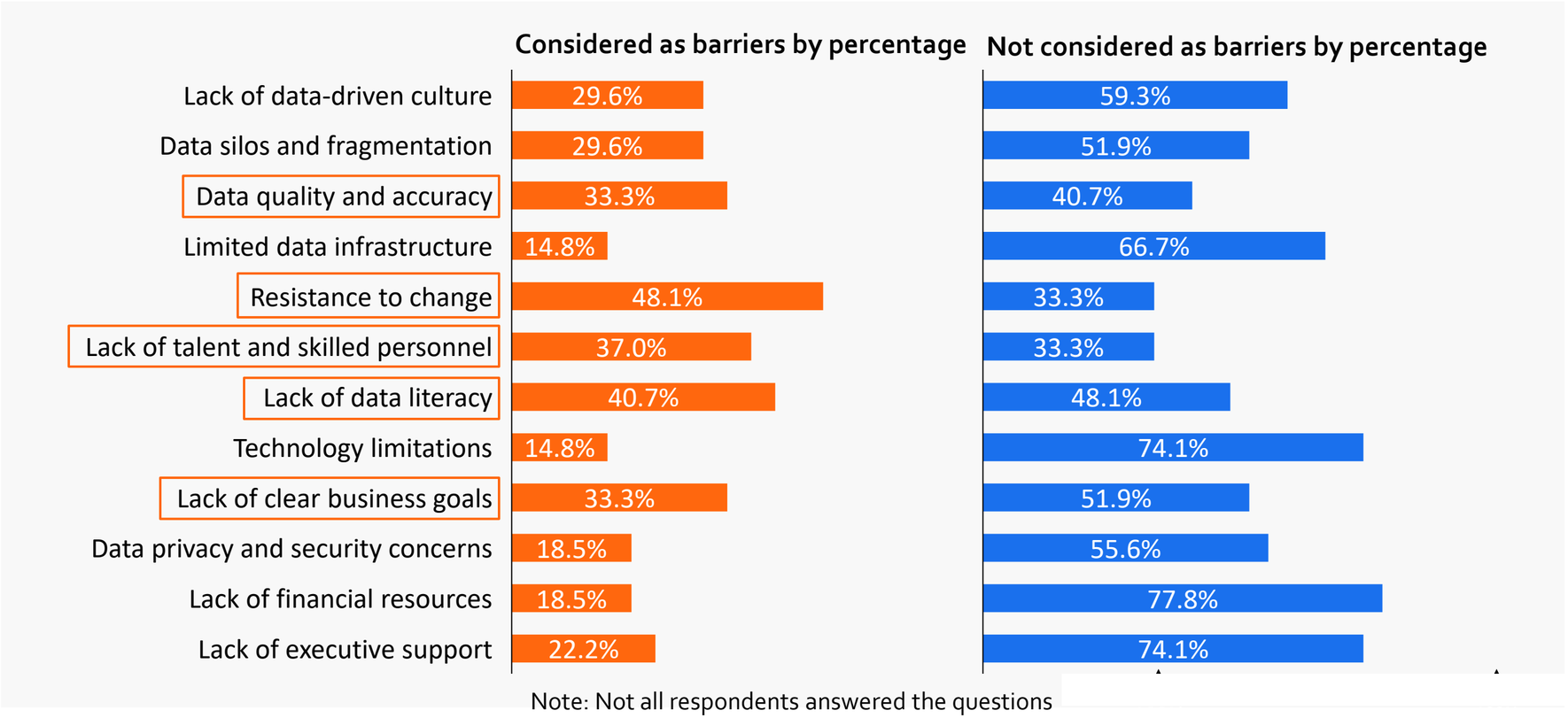
Primary Obstacles to Become More Data-Driven 2023 vs. 2024



The shift from 2023 to 2024 shows reduced people-related challenges, with business processes now emerging as the main barrier. With technology concerns largely resolved, the focus has shifted to education, change management, and process optimization to foster a data-driven culture.

Key Barriers to Become Data-Driven

Lack of executive support, financial resources, data infrastructure, technology, and resistance to change, are the key barriers to Finnish companies' becoming more data-driven.



Note: Not all respondents answered the questions

The most critical barriers to becoming more data-driven for surveyed companies include **resistance to change** and **lack of data literacy** (48.1% & 40.7%), as well as **lack of talent and skilled personnel** (37.0%), **lack of clear business goals** (33.3%), and **data quality and accuracy** (33.3%). On the other hand, issues such as **limited data infrastructure concerns** (14.8%) and **technology limitations** (14.8%) are less commonly identified as obstacles.

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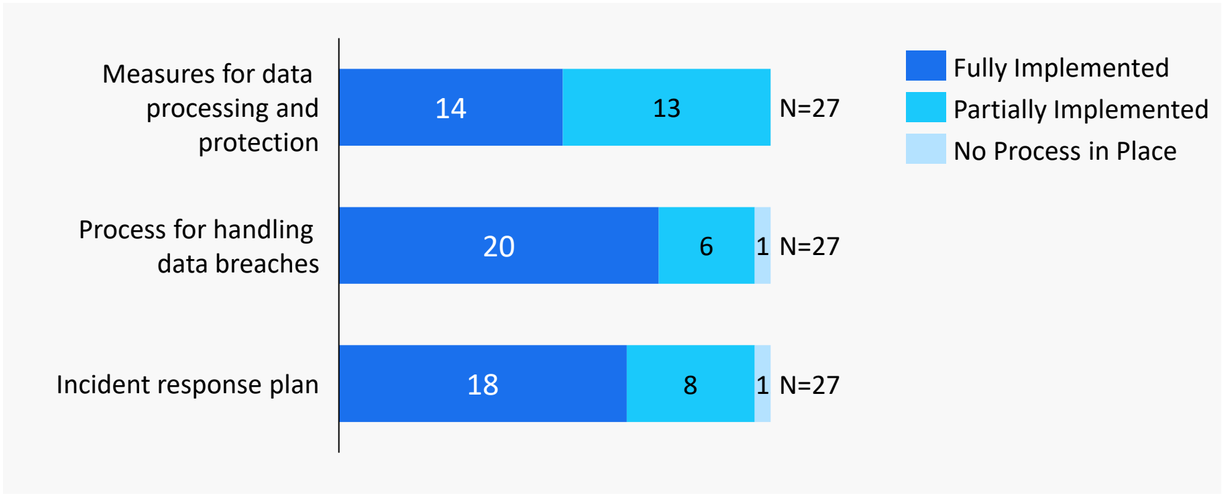
8 Data Security

Data Security and Compliance in Business Intelligence Practices

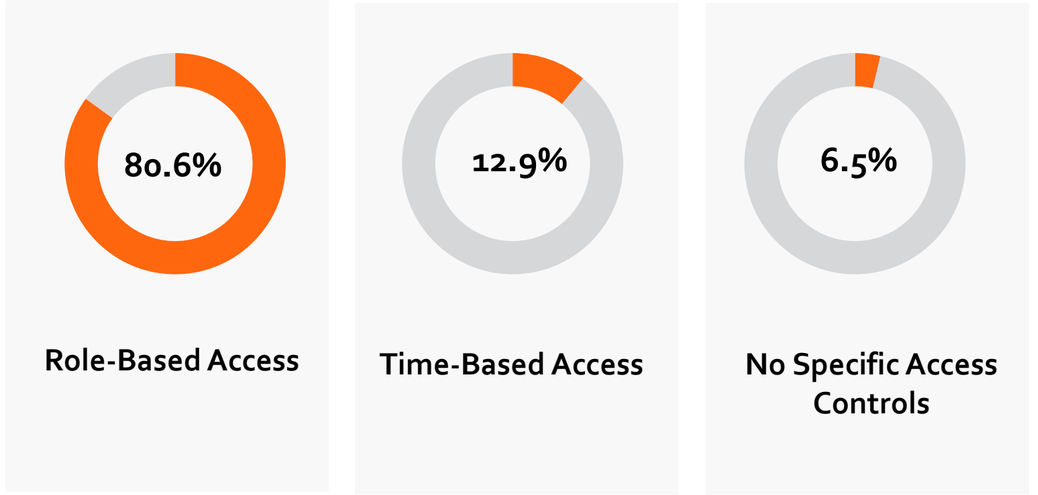
Most Finnish companies surveyed think highly of data security.

Among the surveyed companies, **51.9%** have fully implemented measures to meet GDPR requirements, while **74.1%** have a fully developed process for handling data breaches, and **66.7%** have a well-defined incident response plan. Additionally, **59.3%** review and update their data security policies annually, and **80.6%** utilize role-based access control within BI tools to safeguard sensitive data. While these figures demonstrate strong efforts, gaps remain in aligning with regulatory standards and enhancing incident preparedness.

Company Measures for GDPR Compliance



Controls for Access to Sensitive Data within BI tools and Platforms Among Companies



Note: Not all respondents answered the questions

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9 Future Plans

Investment Priorities in Digitalization and Data Capabilities

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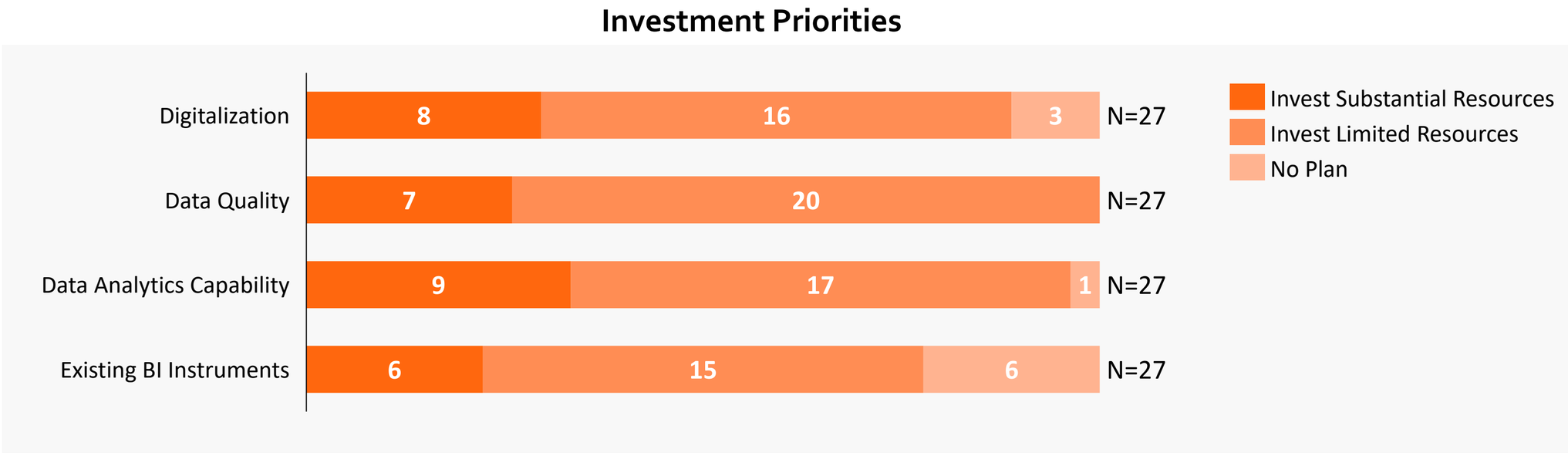
Most Finnish companies surveyed plan to further invest in improving their BI-related capacities!

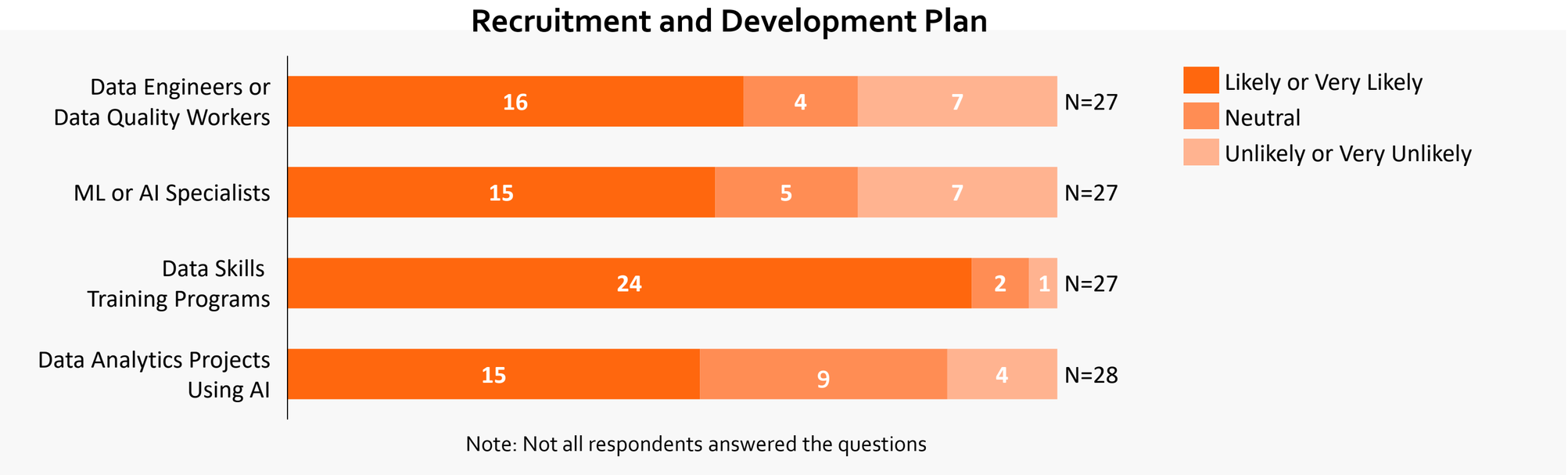
Data Quality emerged as the top investment priority among surveyed companies, with **100%** planning to allocate resources in this area. Investments in data analytics capability are also prominent, with **96.3%** of companies intending to invest. Additionally, **88.8%** of companies plan to invest substantial or limited resources in enhancing digitalization, while **77.8%** aim to invest at least limited resources in their existing BI instruments. These findings highlight that data-capacity-related investment will remain the main foci of future company investment.



Note: Not all respondents answered the questions

Employee Recruitment and Training Plan

Companies can improve their data and business intelligence capabilities by hiring new talent and training their current employees.

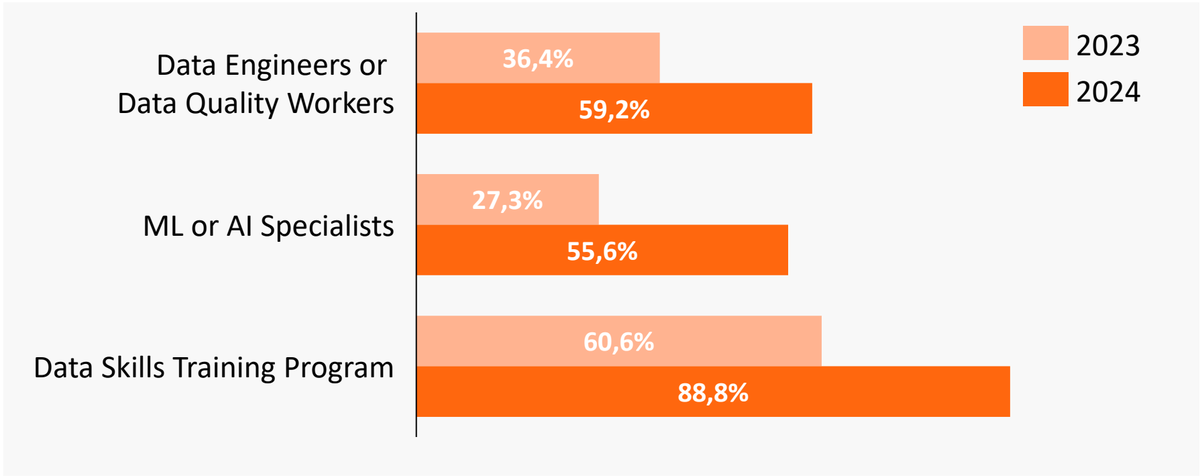


Regarding the recruitment and training plan for the surveyed companies, in the next 6 months, **88.9%** of companies plan to offer data skills training programs to their employees. **55.6%** plan to recruit more ML or AI specialists. Additionally, **59.3%** plan to recruit more data engineers and quality workers. Interestingly, **25.9%** of companies will unlikely recruit ML or AI specialists in the next 6 months, **85.7%** of companies plan to implement data analytic projects using AI in the next 12 months.

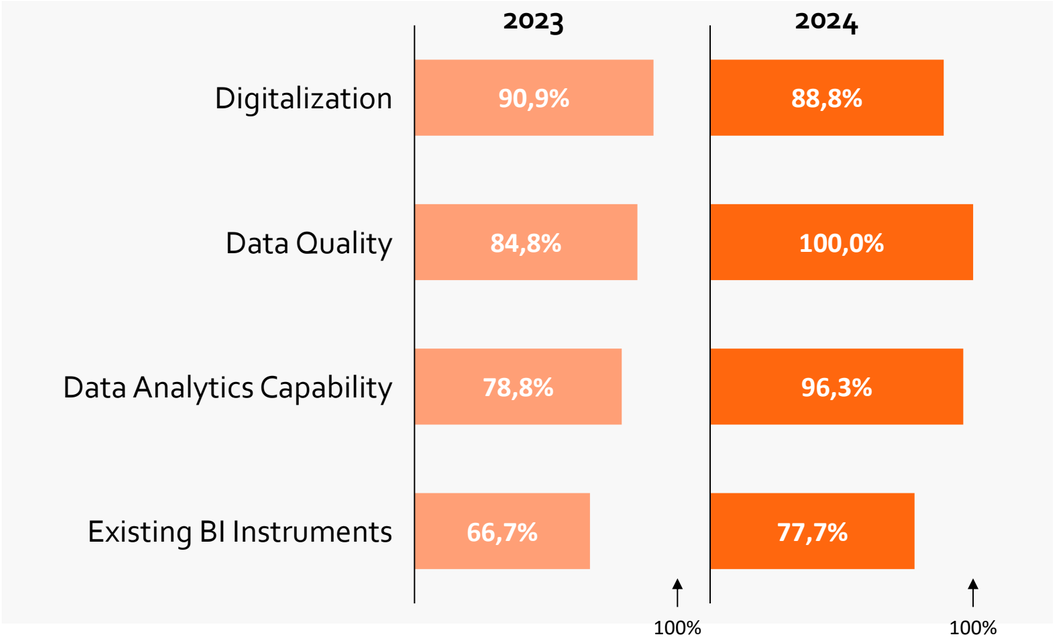
Comparison of Future Plans

The increased focus on hiring ML/AI specialists and data engineers reflects a strategic pivot toward advanced analytics and data quality as critical growth enablers. In addition, more companies are willing to offer data skill training programs to their employees than last year. Overall, we see companies planning to invest more in data infrastructure, capacity, workers, and training in the coming year of 2025.

Recruitment and Training Plan in 2023 vs. 2024



Investment Plans for Digitalization and Data Capabilities



Towards a Brighter Future for Finnish University Business Intelligence (BI) Education and Improved BI Practices in Finnish Companies!

We are deeply grateful to the Finnish enterprise data and BI leaders whose expertise and active participation ensured the success of this project.

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