BI: FUTURE

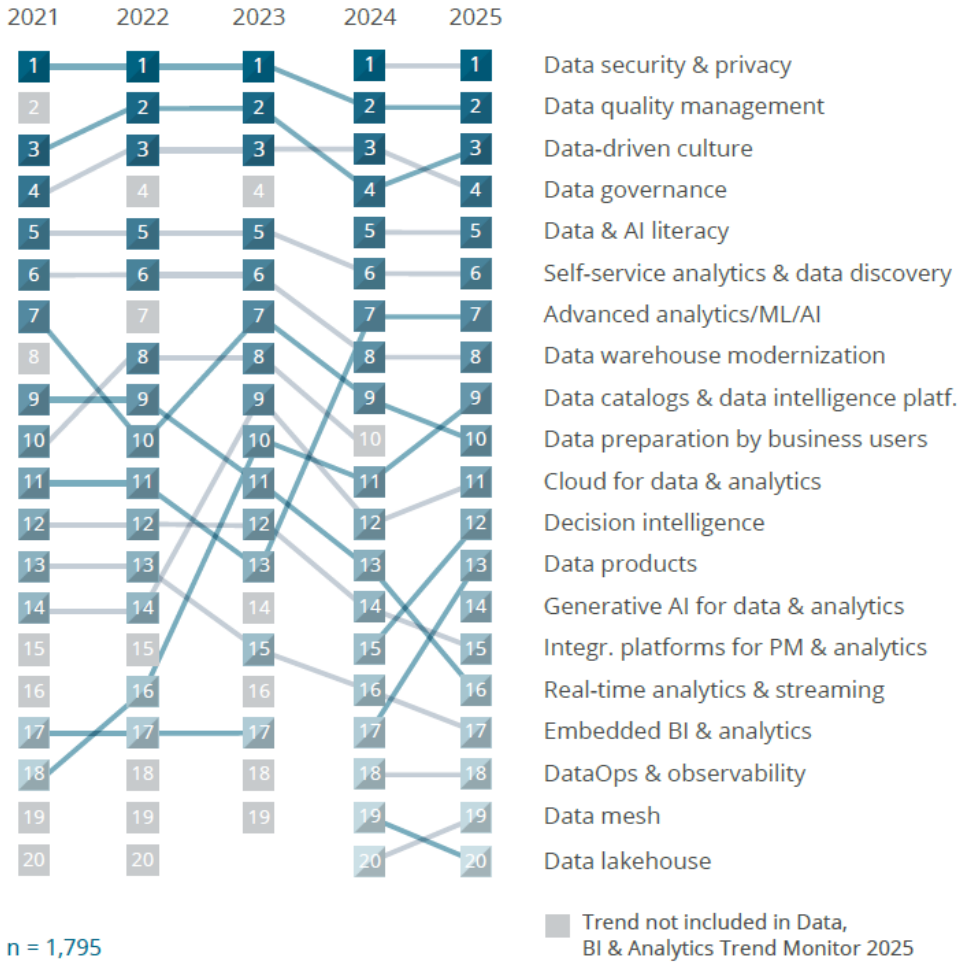
NLP, limpieza de datos automatica, …

gobernanza de datos

Magic Quadrant for Analytics and Business Intelligence Platforms

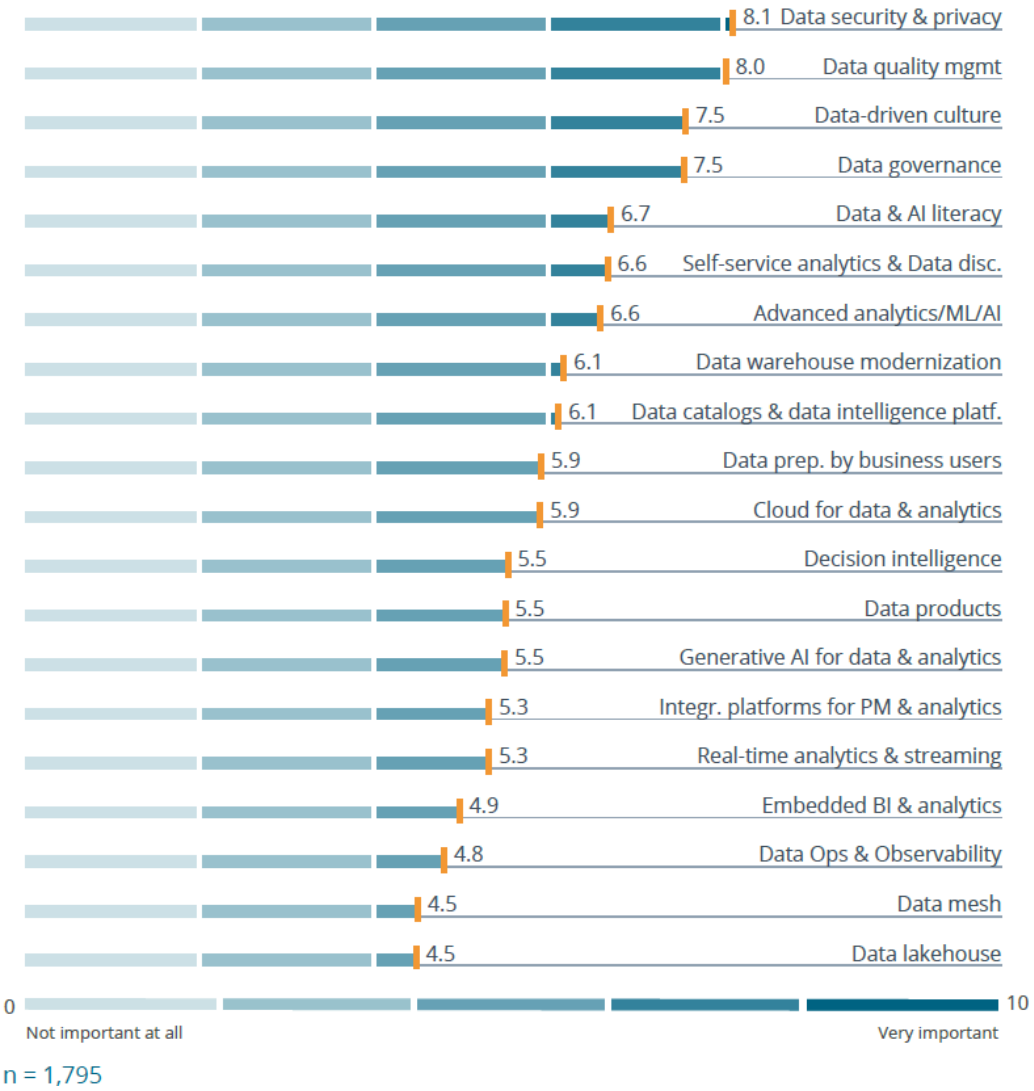
BI:Future

- BI continues to be a top priority for organizations. Very competitive market.
- Fastest growing technologies in IT (also # of professionals)



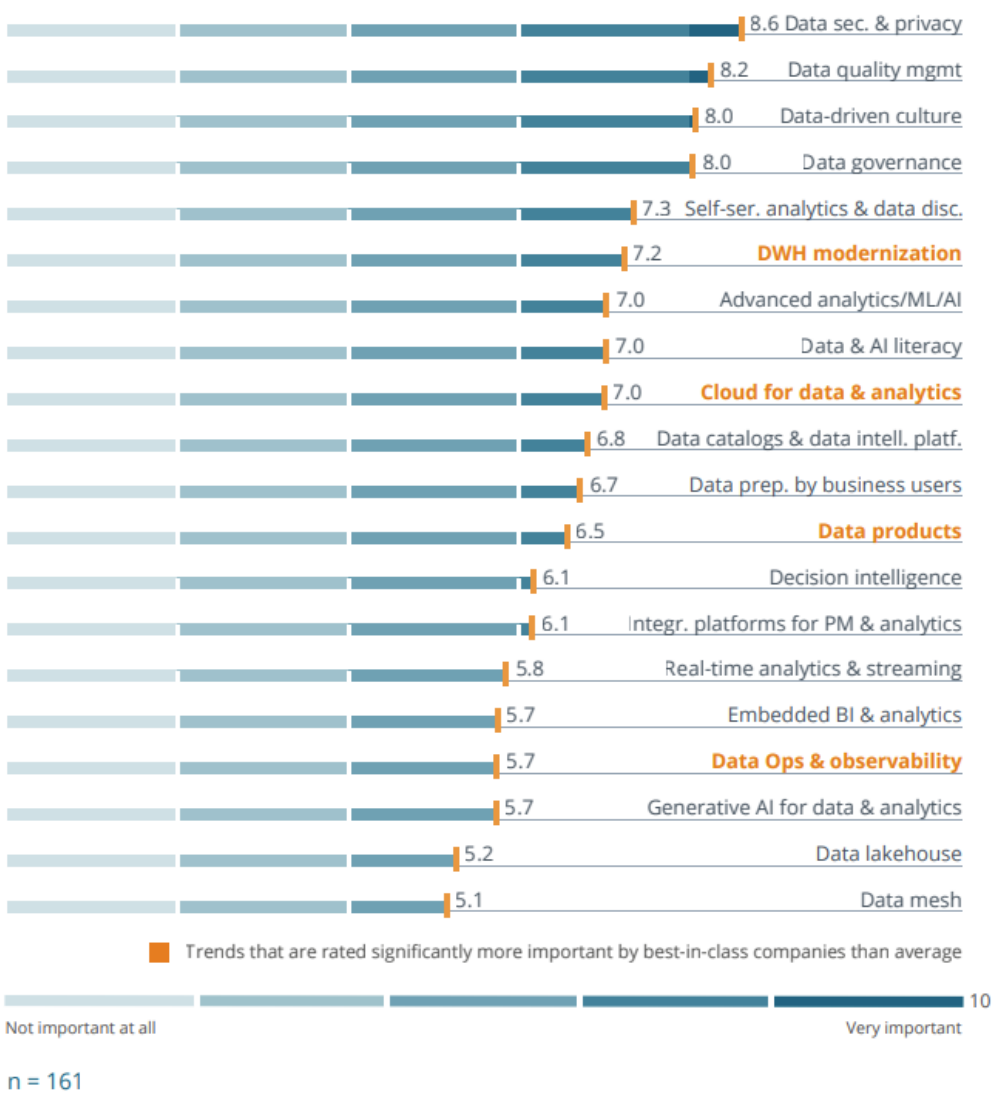
Source: Data, BI and Analytics Trend Monitor 2025. BARC Research Study

BI:Future



n = 1,795

Overall Results



n = 161

Best-in-class Companies

BI:Future. Recommendations

1 Venture into trending topics

The focus on **decision intelligence** and **predictive planning** has grown, especially as companies are now scaling their use of **machine learning** to automate decision-making processes. We can confidently suggest starting pilot projects in these areas, which are delivering measurable benefits in operational decision-making, **embedded BI** and **AI-driven automation**. These initiatives, alongside efforts in **data culture**, **security** and **quality**, remain vital.

2 Enable your staff

With the growing importance of **data and AI literacy**, empowering employees across all roles to engage with **AI-driven tools** and **decision intelligence** is crucial for operational success. This ensures that not only specialized data professionals, but also employees at every level, can confidently interpret and use data to drive informed decisions. A lack of skills remains one of the most significant barriers to progress, not only in AI adoption but across the broader data and analytics landscape.

3 Pay attention to data governance

Data governance is becoming increasingly vital as businesses adopt decentralized data ownership and self-service analytics. With more users accessing and analyzing data, governance frameworks are needed to ensure integrity, consistency and security. As decision intelligence and AI play a larger role, high-quality, governed data is crucial for reliable automated decision-making. This shift is driving the rise of federated governance models, which balance flexible data access with robust oversight to maintain trust in data-driven decisions.

4 Modernize your information architecture

Review your existing information architecture to ensure it can handle the growing demand for cloud-based analytics, real-time data and AI-driven insights. The need for data warehouse modernization remains critical, as companies aim to integrate cloud-first strategies and support poly-structured data. Embedded BI is increasingly part of this architecture, enabling real-time decision-making within operational workflows. A modern, flexible architecture will support advanced analytics, enabling businesses to respond to the ever-growing complexity of data environ-

5 Playtime is over! Is it?

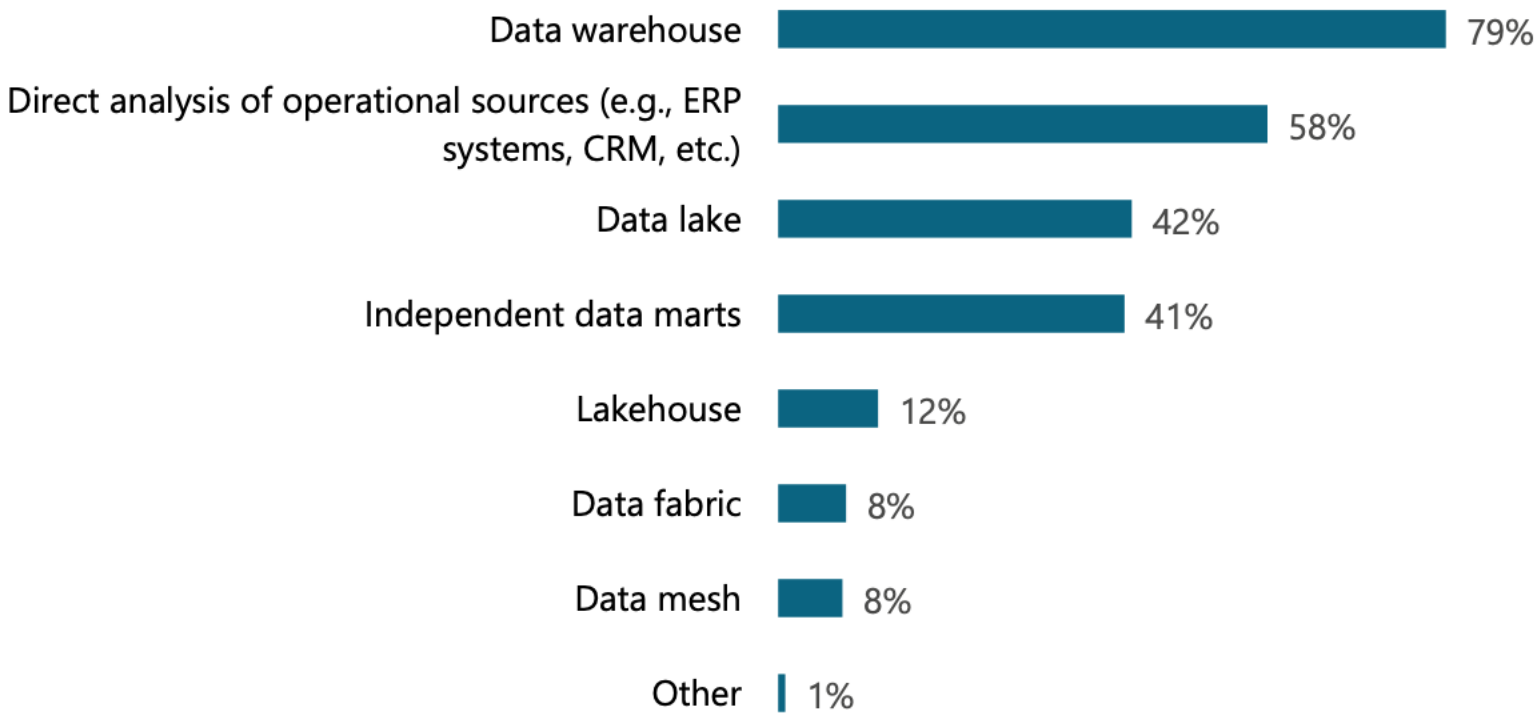
As companies move beyond prototypes, the focus is shifting toward **operationalizing AI**, particularly in areas like **decision intelligence** and **predictive planning**. Businesses are scaling AI implementations to automate operational processes in areas such as **fraud detection** and **dy-**

6 Get ready for a data-driven culture

The foundational pillars from the **BARC Data Culture Framework** continue to be critical, with both **data literacy** and **AI literacy** becoming increasingly important in 2025. Companies must foster a culture that not only supports data-driven decision-making but also incorporates AI as

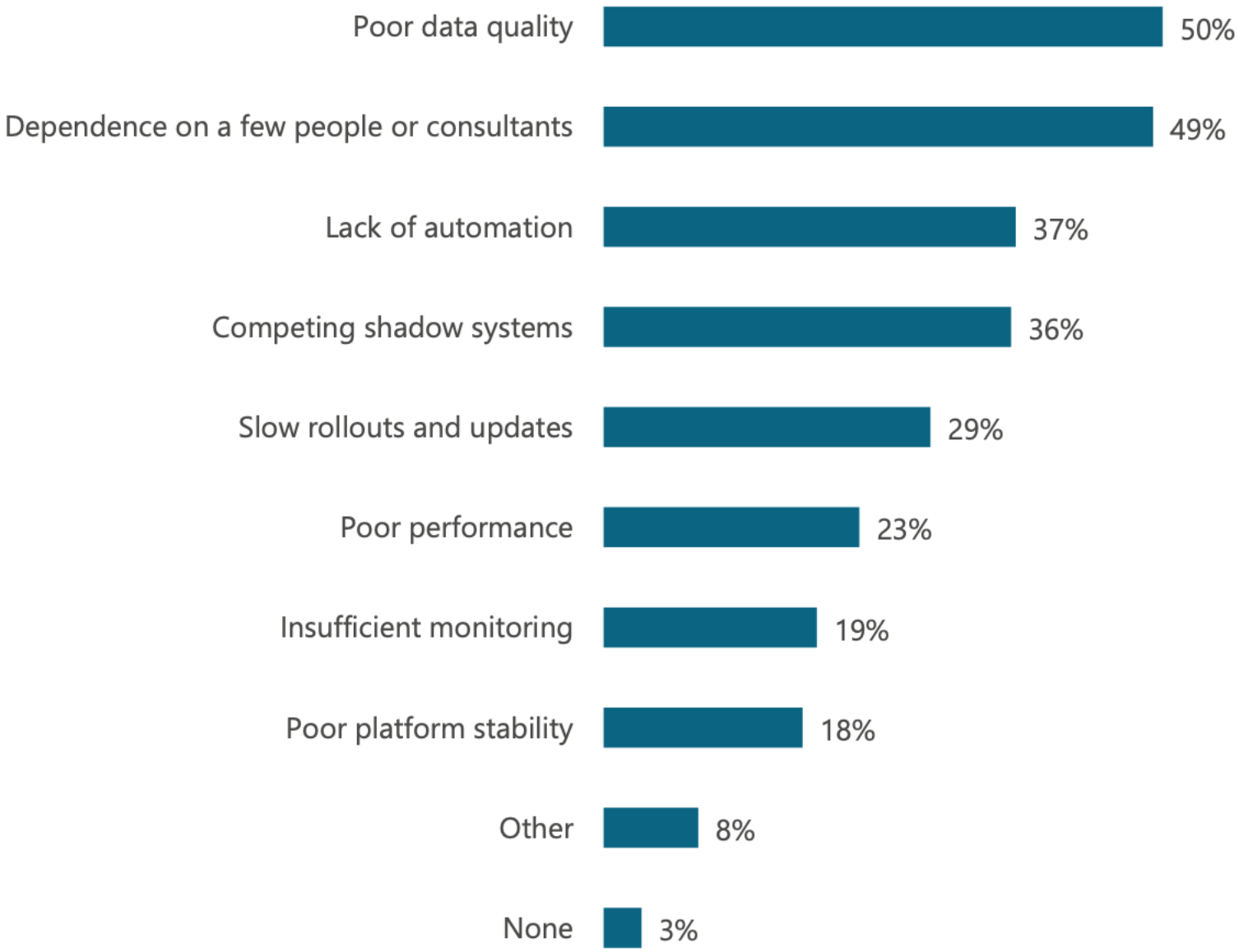
BI:Future

Figure 2a. Which of the following types of architecture do you have in your environment? (n=236)



Source: Data Warehouse and data vault adoption trends. BARC Research Study

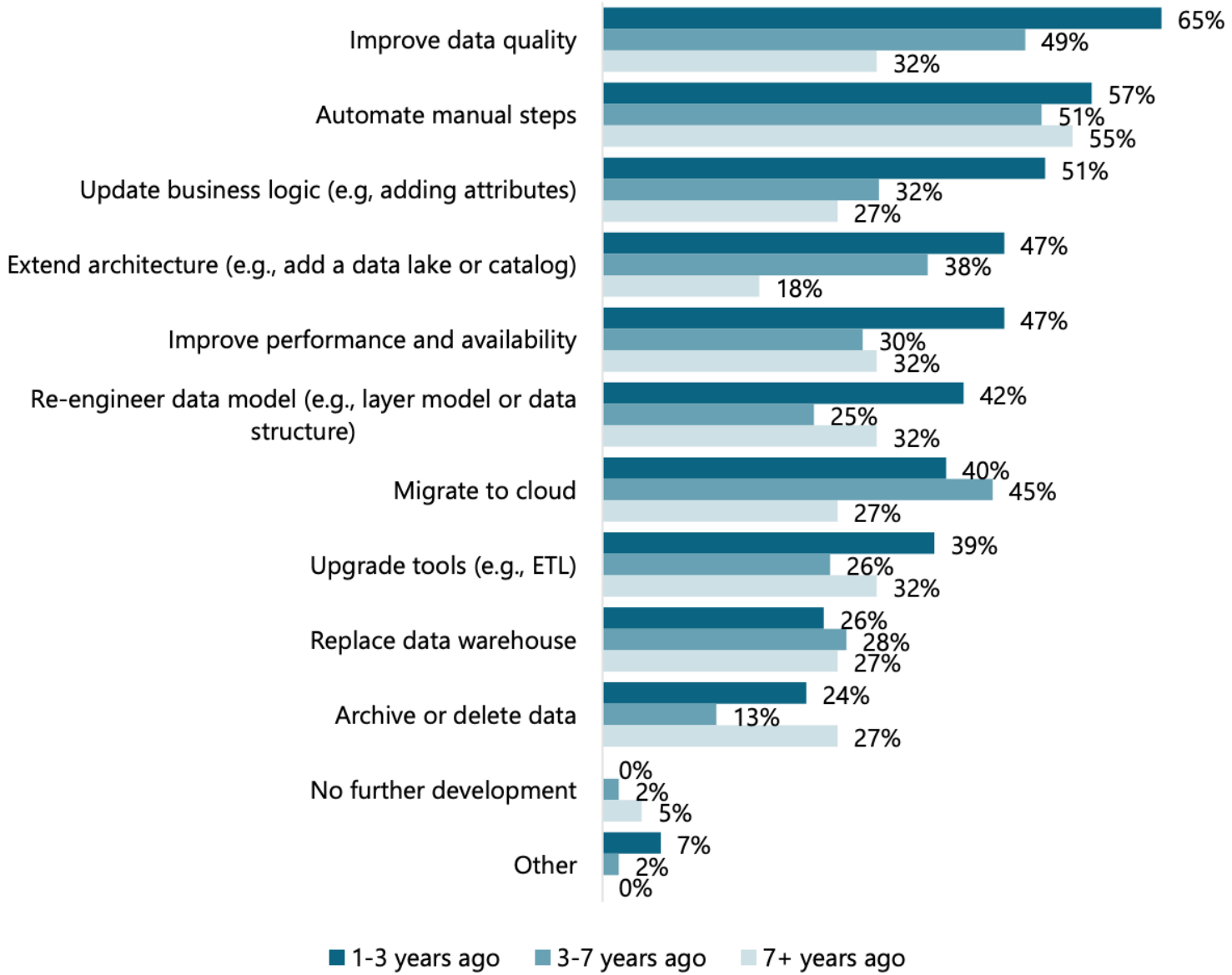
Figure 3. What are the biggest challenges in your current analytics environment? (n=238)



Source: Data Warehouse and data vault adoption trends. BARC Research Study

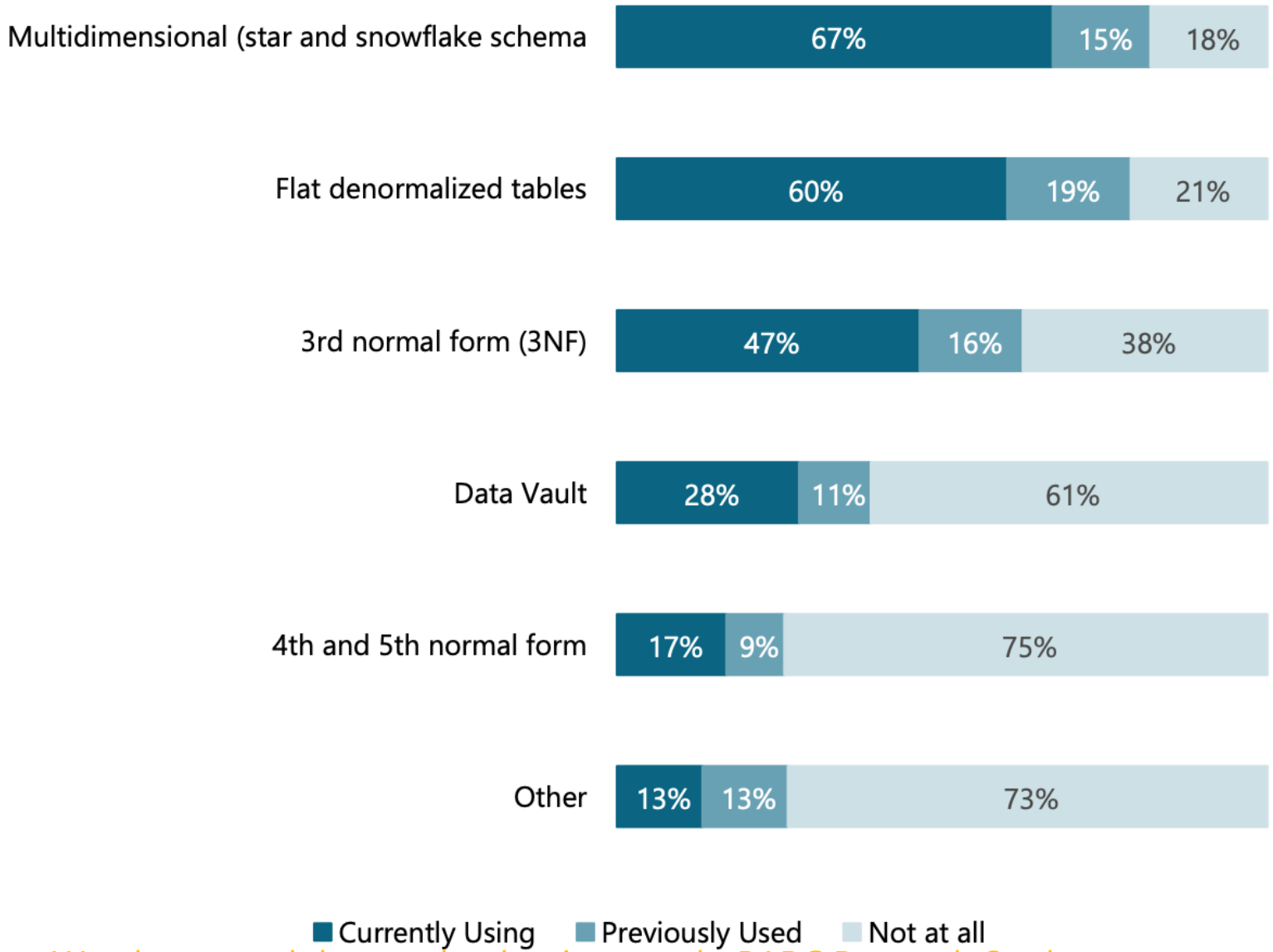
BI:Future

Figure 6. What environment updates and modernization steps do you plan in the next 3 years? (n=237)



Source: Data Warehouse and data vault adoption trends. BARC Research Study

Figure 9. What data modeling techniques does your company use, or has it used in the past? (n=238)



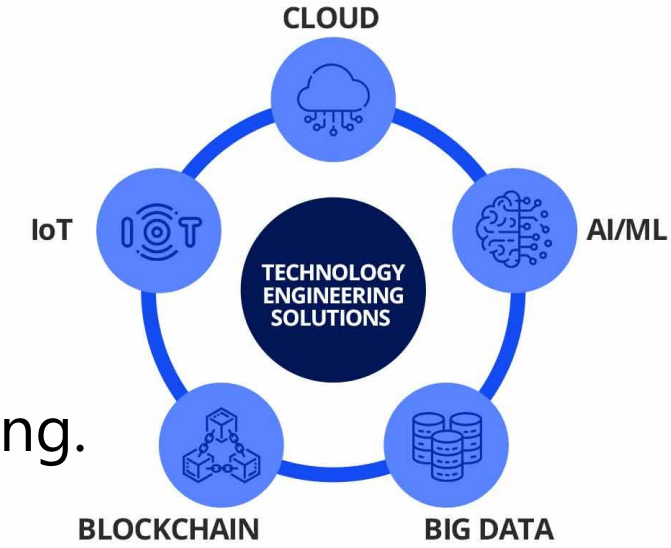
Source: Data Warehouse and data vault adoption trends. BARC Research Study

BI:Future. Big Data and Key Technologies

Big Data changes how enterprises manipulate data.

Shift to **predictive**, **real-time**, and **user-friendly** analytics.

No more data silos: Lakes, Warehouses, and Lakehouses complement each other.



Key Technologies in BI Future:

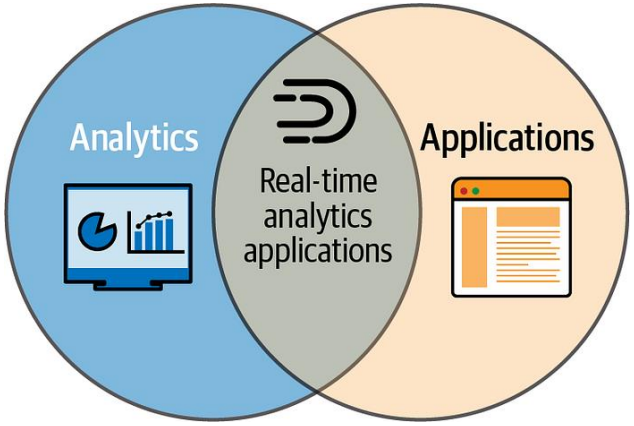
- **AI**: Automate data analysis and decisions.
- **ML**: Enhance predictive analysis and modeling.
- **IoT**: Vast real-time data streams.
- **Blockchain**: Secure, transparent storage.
- **Cloud Computing**: Scalable, on-demand processing.

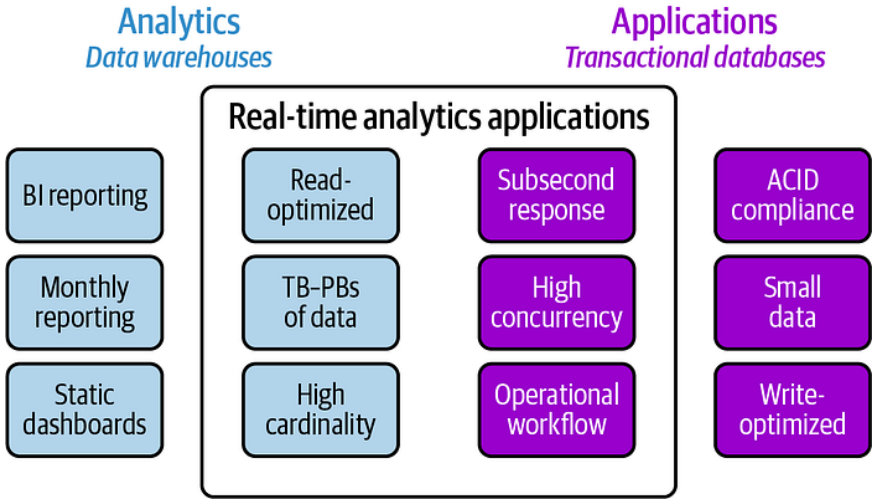
Real-time Analytics:

- **Immediate decision-making**: trading, social media, logistics.
- Data accuracy, privacy concerns, and infrastructure requirements.

Infrastructure Perspective:

- **Hybrid**: MultiCloud and on-premise solutions.
- **Elastic**: Adapts to changing needs with data quality a must.





BI:Future. Challenges and Improvements

What we want to improve?

Business/User satisfaction
Optimize resource usage
Enhance productivity
Adaptation to changes
Better (timely) information
ROI
Integration

Challenges:

Find BI professionals understanding technologies and business

DWH needs to become agile

Data privacy and Ethics: Encryption, anonymization, secure data storage.

- **Compliance** with GDPR, and similar legal frameworks for user data protection.
- **Fair use of data**, avoiding bias in data analysis, ensuring transparency in data handling.

Edge Computing: Processing data near the source

Less latency, faster decision making and massive data processing

Areas:

Healthcare- predictive patient care, customized medicine

Finance-Real time fraud detection, trading, customized banking

Retail- Optimize inventory, predict customer behaviour

Manufacturing- predictive maintenance, quality control, process optimization.

DataOps:

- Inspired by DevOps, decreases the time from data to value
- Users: Analysts and scientists looking for creating and deploying models and visualizations
- Improves data and analytic pipelines, automating data ingestion, transformation and "orchestrating" of data workflows.

Decision Intelligence:

Use AI techniques to improve decision making. Use ML, statistics ands analytics to solve business needs.

Edge Analytics:

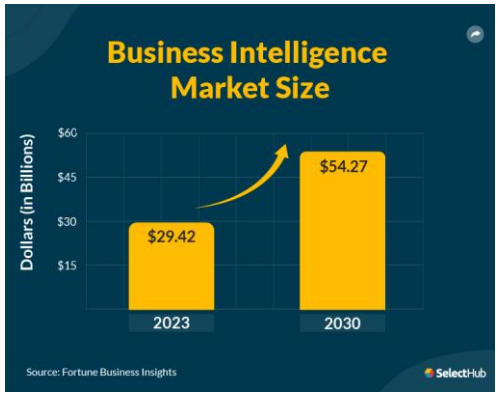
Descentralized & near-sensor analysis (usually IoT devices)

BI:Future. Market Trends

Market

- $14,3 billion (2018), $27.11 billion (2022) , $29.42 bilion (2023), $54.27 billion (2030), $63.76 billion (2032). Annual growth rate ~9%
- BI becomes a core component of operations
- By 2023, ~ 33% of large companies implement decision intelligence
- Self-service BI essential for 60% R&D departments

Adoption Rates: 26% (global), 80% (#staff >5000)



- Cloud–based BI market fastest growing BI segment
- Cloud-based BI being adopted by manufacturing (~58%), and business and financial services (~40% each)

Job Market

- Growing job market (55% business have dark data)
- The US Bureau of Labor Statistics predicts the creation of around 11.5 million data scientist jobs by 2026.
- Demand for data engineers is projected to grow at a rate of 50% annually.

Job Market (Cont)

- **Demand for BI Professionals**: The BI field is expected to grow due to the increasing volume of data and the need for data-driven decision-making. Roles such as BI Analysts, Data Scientists, and BI Developers are in high demand.
- **Skills in Demand**:
  - **AI and Machine Learning**: Understanding how to apply these technologies for predictive analysis and automation in BI.
  - **Data Visualization**: Proficiency in tools like Tableau, Power BI, or Qlik for creating interactive dashboards.
  - **Data Management and Governance**: Skills in managing data quality, security, and compliance.
  - **Cloud Proficiency**: Knowledge of cloud BI solutions like AWS, Google Cloud, or Azure for scalability and flexibility.
- **Emerging Roles**:
  - **Decision Intelligence Analysts**: Roles that focus on using BI to directly influence business decisions.
  - **Data Storytellers**: Professionals who can translate complex data into compelling narratives for stakeholders.