



TOP 6 DATA TRENDS FOR 2023

Report by Agile Lab

INTRODUCTION



2022 brought about another lightyear in the evolution of data management, especially when comparing it with the pace of other industries. Data now moves at the speed of business... or at least it should.

We're seeing 6 data trends for 2023, some of which have remained from last year, while others are emerging as a natural next step from previous trends.

This report contains information about the evolution of data management, the productization of data, its governance, changes affecting vertical markets, the broader adoption of Data Mesh, and finally, a new key skill for data engineers.

Data productization will improve not just the value provided, but by transforming IT departments into enablers who build business assets.

Effective governance is nothing new. But it is extremely hard to implement. The complexity is directly proportional to company size, which is why it's been a part of yearly trends for quite a while.

Data management, protection, and value are equally important as they lead to discovery, effective management, elevation, and empowerment. Delivery speed is key for business, thus data needs to shift into the next gear.

2023 will also bring about a broader adoption of Data Mesh, as activities will intensify around the creation of MVPs and POCs.

Finally, data engineers will have to add yet another skill to their ever-expanding arsenal: Understanding business processes.





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1. PRODUCTIZATION OF DATA

There is growing awareness of the value that data could generate. The conditional is a must, as not all the initiatives in terms of Data Lake, Data Warehouse, ML & AI of the last 15 years seem to be bringing the expected ROI.

The availability of easily scalable Cloud infrastructure has certainly enabled rapid migrations/implementations of analytical systems. These, however, have not always been accompanied by strategies oriented towards business, quality, and seeing data as products, as opposed to costs incurred "because sooner or later that data will be needed".

THE TENDENCY FOR DATA PRODUCTIZATION IS GAINING GROUND.

The benefits are extensively covered by [McKinsey](#) and [Accenture](#), among others. It is an innovative and effective approach that allows value extraction from data and unlocks its real potential.

Treating data "as a product" has positive impacts on both management times and costs, while reducing the risks associated with data governance. Product thinking imposes an increased focus on the quality of the product and its positioning within the market by boosting the cost-benefit ratio.

IT departments that are usually considered pure cost centers at the service of the business, just from a design point of view, are increasingly turning into enablers, that build platforms and assets, real products that can also be resold on the market.

This movement plus the transition to the cloud will result in the cost shift from CAPEX to OPEX, a change that companies have been dealing with for some time now.



Migrations to the Cloud will continue, with an increase of 20.7% in spending (Gartner), at least in the early stages of redesigning analytical data-driven business strategies. However, the scalability of the Cloud may come up with problems in terms of interoperability, cost and sustainability.

There is more and more talk about multi-cloud support, the possibility of multi-vendor architectures (to reduce lock-in and optimise costs), as well as FinOps and GreenOps as practices to address issues of infrastructure development, creation and maintenance in a sustainable way not only for the portfolio, but also for the environment. Especially with the heightened sensitivity from recent events, energy prices and climate change, the IT world is also being called upon to raise awareness.

The other very important issue is the need to build data platforms that are no longer totally focused on technology but allow for different ones to be embraced and evolved (Technology Agnosticity).

This is dictated by the fact that the huge sums invested by venture capital funds have enormously accelerated the market for technologies, decreasing their life expectancy and thus forcing large companies to mitigate the risk of lock-in from them.

Moving to a technology that will become obsolete within five years, if approached in the wrong way, can lead to huge and recurring migration costs.

Last but not least, the need to bring together the ownership and responsibility over the data lifecycle of the analytical and 'operational' worlds to address specific domain-oriented business strategies will become more and more evident: it will then be obvious how centralized approaches (the standard of the last 15-20 years) will become less and less sustainable - scalable - to keep up with the opportunities arising from well-governed harvesting of data.

This decentralization process must be supported by building platforms that reduce waste, duplication of effort, and knowledge, and that dramatically improve the autonomy of business domains with regard to infrastructure and all compliance issues.

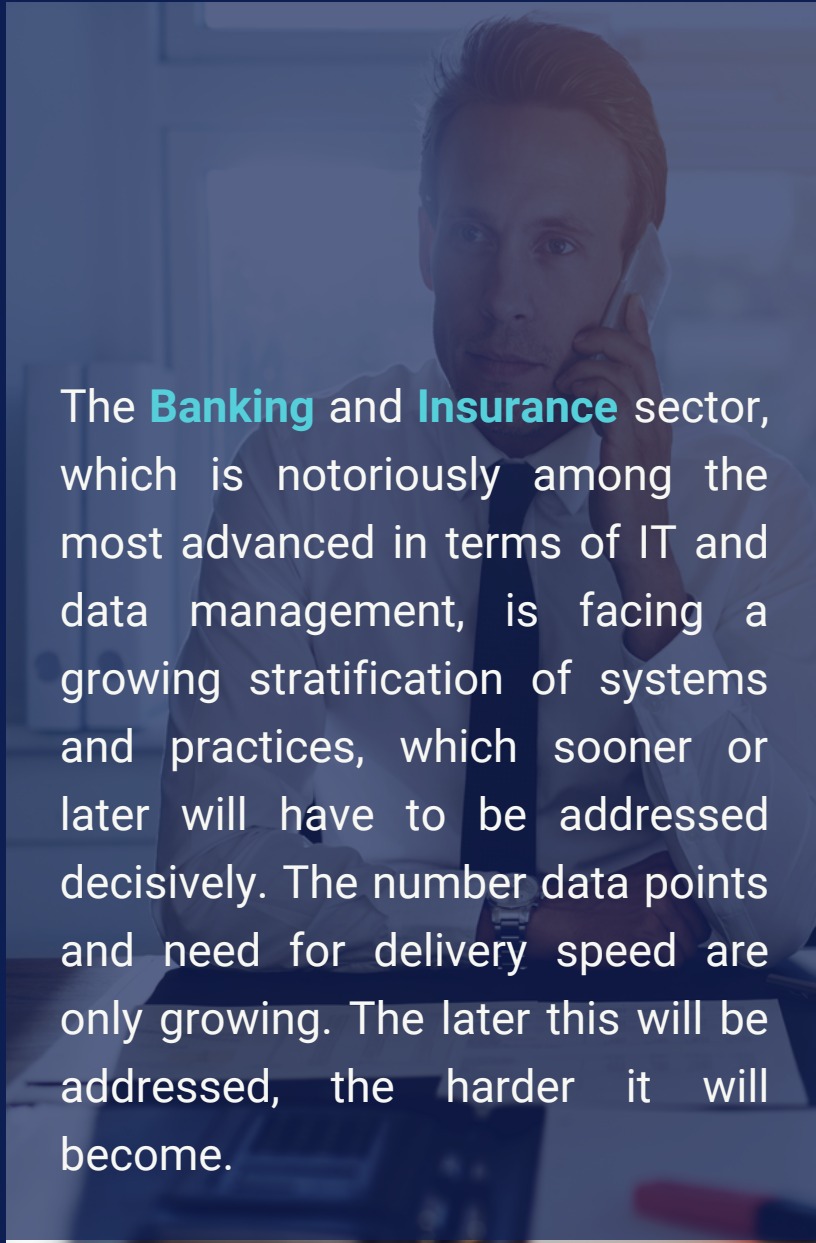


2. DATA GOVERNANCE




3. SIGNIFICANT CHANGES TO VERTICAL MARKETS


THERE IS NO ONE INDUSTRY THAT IS MORE IMPACTED BECAUSE EVERY COMPANY, REGARDLESS OF SECTOR, HAS ITS OWN CULTURE AND HISTORY IN THE FIELD OF DATA MANAGEMENT.



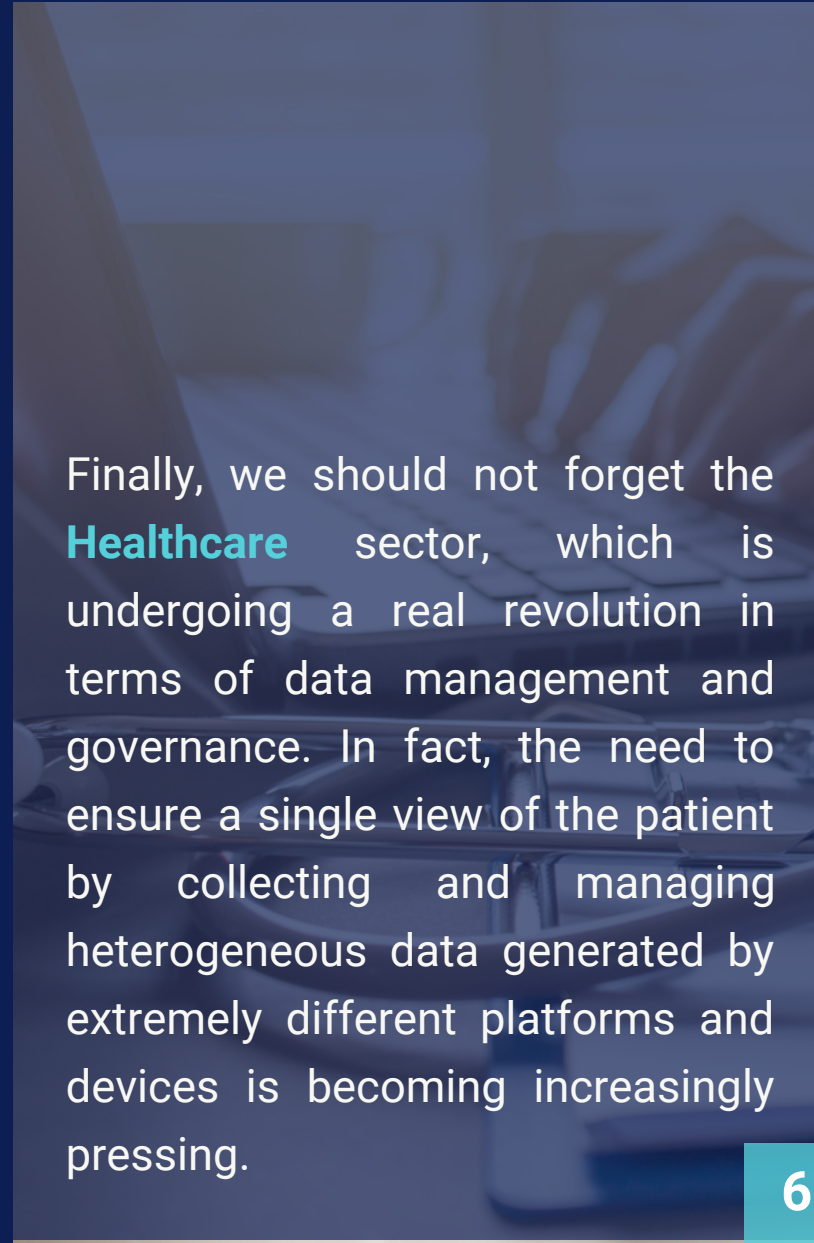
The **Banking** and **Insurance** sector, which is notoriously among the most advanced in terms of IT and data management, is facing a growing stratification of systems and practices, which sooner or later will have to be addressed decisively. The number data points and need for delivery speed are only growing. The later this will be addressed, the harder it will become.



It is joined by the **Utility/Energy** sector, where the exploitation of the large amount of data available represents a fundamental tool for responding to the forecasting needs and planning of energy consumption, especially in a global context as unsteady and delicate as the current one.



Surely **Manufacturing** is the sector that has the greatest difficulty in extracting value from data. It faces non-trivial challenges in terms of creating value from data that often come from multi-country and multi-plant contexts, with complex regulations and often inadequate IT infrastructures.



Finally, we should not forget the **Healthcare** sector, which is undergoing a real revolution in terms of data management and governance. In fact, the need to ensure a single view of the patient by collecting and managing heterogeneous data generated by extremely different platforms and devices is becoming increasingly pressing.



4. SPEED OF DELIVERY

MANAGE

Manage, protect, and value. All 3 data aspects are essential because they are the path to data discovery, management, elevation and empowerment.

PROTECT

The current data management processes have proven inadequate to support the business with the proper speed, which is why it is necessary to overhaul the entire system.

VALUE

INCREASE DELIVERY SPEED.

In 2023, with a broader adoption of the Data Mesh, there will be a greater focus on revisiting data management processes, impacting the systems of business ownership, change management, and budgeting. It will be a bit like taking one step backward and then three steps forward over the next few years.

At Agile Lab, we have built a platform ([witboost](#)) that allows us to drive change. It offers protection mechanisms that enable the distribution of ownership, while maintaining an excellent degree of control, completely reinventing the processes of governance, protection, and creating value from data.



5. BROADER ADOPTION OF DATA MESH



We are still in the innovation phase of the hype cycle, both in Europe and beyond.

There is great interest in the topic and companies are taking action. We expect that in 2023 the activities will intensify around the creation of MVPs and POCs on this issue by those who have not yet explored the topic.

This trend will also influence the consolidation of Data Mesh solutions and even grow the market and the demand for its implementation. Moreover, because the adoption process requires companies to trial the paradigm shift on a single domain, we're predicting a proliferation of tools to speed up that process.

MEANWHILE, EARLY ADOPTERS WILL CONTINUE WITH THEIR IMPLEMENTATIONS AND TO INVEST IN BUILDING ENABLING PLATFORMS THAT WILL BECOME A CENTRAL ELEMENT FOR DATA MESH ADOPTION.



6. NEW KEY SKILL: UNDERSTANDING BUSINESS PROCESSES

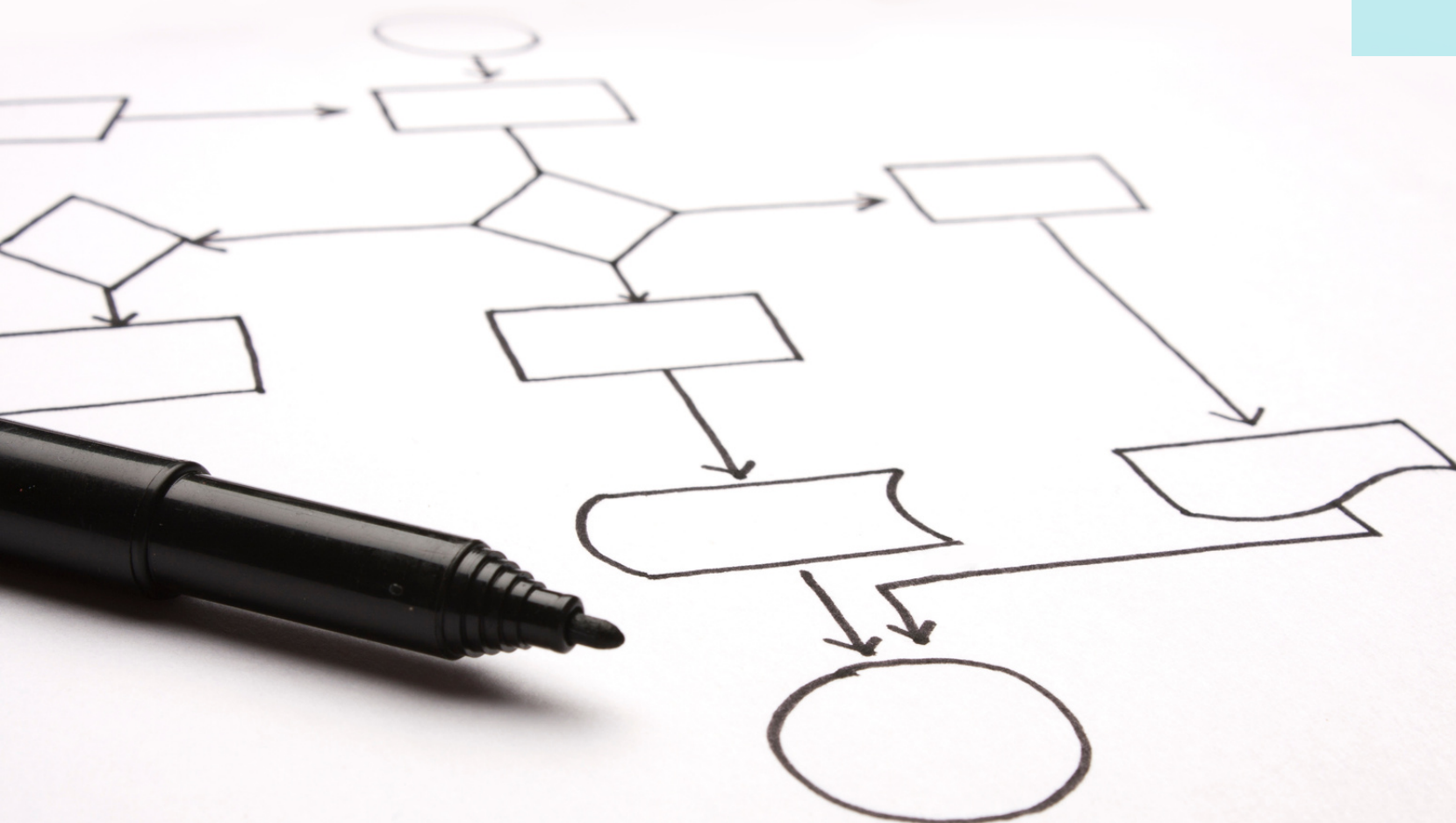
Fundamentally, understanding business processes is critical to being able to model data properly and find new ways to extract value from it.

TECHNICAL SKILLS ARE INCREASINGLY BECOMING A COMMODITY. AS THEY ARE EASILY INTEGRATED, WHILE THE UNDERSTANDING OF PRINCIPLES, PRACTICES AND PROCESSES IS BECOMING MORE COMPLEX AND SOPHISTICATED EVERY DAY.

THIS IS WHERE THE REAL CHALLENGE FOR DATA PROFESSIONALS LIES.

The “engineering” of the data production and delivery process as a practice from the perspectives of design, methodology, operations, and tooling, enables the creation and maintenance of real innovation.

The strength of Agile Lab has been and remains its vision dedicated to Elite Data Engineering, because in the end, all technologies become obsolete, while well-structured organizational, methodological and engineering practices allow for real evolution and constant innovation for companies.



TRENDS REPORT SUMMARY

Trends are by nature ephemeral. Some of the trends identified, however, have been present for quite a while and will remain so in the foreseeable future given the complexity of proper governance at scale. The same can be said for the speed of delivery, an organizational challenge directly proportional to company size. Finally, the productization of data, tied to the previous two, will allow fast delivery of value and ROI in the long term.

The trend towards data productization is gaining ground as an innovative and effective approach that allows for the extraction of value from data and unlocks its potential. The benefits of this approach include reduced management times and costs, and reduced risks associated with data governance.

The scalability of the cloud may come with risks and the need for data platforms that are not solely focused on technology will become more evident. The decentralization process must be supported by platforms that reduce waste and improve autonomy.

Every company, regardless of sector, has its own culture and history in data management. The banking and insurance field, which is at the forefront in terms of IT and data management, is facing stratification of systems and practices. The utility/energy industry needs to exploit the large amount of data available for forecasting and planning. Manufacturing is the sector with the greatest difficulty in extracting value from data. The healthcare field is undergoing a revolution in data management and governance.

In 2023, with a larger adoption of Data Mesh, there will be a greater focus on revisiting data management processes and increasing delivery speed. Understanding business processes, a key skill and challenge for data engineers, will unlock proper data modeling.

ABOUT AGILE LAB



We engineer the Data Management practice by **designing detailed architectures**, adopting methodologies, processes, and tools to **craft reliable**, maintainable, evolvable and reusable **products** and **services**.

Elite Data Engineering harvests the power of your data.

Our modular platform, [witboost](#), can solve many real-world Data Engineering problems, by empowering enterprises to discover, elevate and productize their data fast. Explore its modules:

- **Data Product Templates**
- **Data Product Builder**
- **Data Product Provisioner**
- **Data Product Marketplace**

