

MASTER DATA A LEVER TO REACH EXCELLENCE?

Master data management has never been more strategic than it is in today's digital era. It represents the company's core: it ensures the transfer of master data, which is vital for the company's activity, from and to all parts of the organization, and doing so, it guarantees the company's sustainability and growth. Unfortunately, unlike the human body, proper regulation of this circulatory system is far from being innate.

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In the context of data volume outburst (Big Data, Internet of Things etc.) and information systems atomization, neglecting data is no longer an option, and companies are aware of this. Leading governance projects on master data – data mainly regarding products, clients and suppliers' standards – becomes of strategic use. Indeed, in quite a direct way, defining and setting up a good management strategy for master data quality and reliability, that is also consistent and centralized, allows the company to better defend itself against rivals, thanks to performance improvement. Moreover, such projects can also support an aggressive policy, allowing the company to be competitive on projects offering added value: Machine Learning, Big Data, etc. However, to do so, some pitfalls must be avoided, and some questions must be asked: who, what, when, why, how?

DATA GOVERNANCE, WHAT DOES IT MEAN?

Leading a master data governance project means defining the management rules for master data, like a **civil code for master data**.

Governance aims to clarify **how data is used, who owns it and who is responsible for its quality, according to the processes, solutions, norms or standards**.

It includes the following aspects:

- / Defining of shared data fields and their typology.
- / Set up of standardized methods and management rules.
- / Set up of an organization dedicated to data management, with defining of roles and responsibilities.
- / Defining of appropriate decision rights.
- / Management of statistical analysis of data.

It involves looking at the semantics of what an item, a client, or a supplier within the database is, to define their life cycles, to consider everyone's roles in the organization regarding the creation and maintenance of this data, and to rethink the applicative architecture where the data belongs.

It addresses several challenges such as:

- / **Reliability:** ensuring accuracy and access at all firm's levels.
- / **Consistency/quality:** securing creation/maintenance processes.
- / **Security:** ensuring the security of data and exchanges.
- / **Agility:** quickly adapting optimizing to operational needs.
- / **Productivity:** optimize the workload needed to manage master data.

FIRST, RALLY THE EXECUTIVE COMMITTEE: WHY, HOW?

Master Data's governance is a complex and transversal subject, which requires important cultural, organizational and technical transformations. Although operational committees are more and more aware of the importance of data quality, challenges regarding the core business are generally under-estimated. In this context, the risk that these initiatives might not be valued or prioritized enough, is real. Therefore, the alignment of the executive committee with the challenges and the expected results of the project is crucial before moving on to more operational phases of implementation of the project. A master data governance project does indeed **create value**, which ideally needs to be proven.

A master data project, source of profit rather than center of cost

Today, ambitions about data management are high.

However, in reality, many companies are far from their objectives on this topic: 91% have not yet reached their "transformational" level of maturity regarding data management and analysis, although it has been a number 1 investment priority for ISDs over the last years (Gartner).

Work therefore remains to be done:

- / **Data is still badly exploited:** indeed, according to the study "Intelligence artificielle & Big Data" by l'Usine Digitale, while 51% of companies rate data collection between 7 and 10/10, only 35% rate data analysis and exploitation at the same level.
- / Data management lacks effectiveness and consistency: thus, it is the **source of significant administrative costs** and slows down the company's productivity. For instance, most of the time dedicated to data analysis is used for tasks such as:
 - Reviewing/controlling data quality and consistency, task mentioned by 52% of companies (Ventana Research)
 - Preparing data for analysis - extracting data from different sources, reaching data for integra-

tion, securing data, task mentioned by 46% of companies. (Ventana Research).

According to the 2019 Wavestone Master Data Study, **70% of companies consider that the quality of Master Data is not satisfactory**. Several root causes have been identified by companies.

- / Lack of data culture within the company (lack of awareness, lack of competences...), mentioned by 58% of companies.
- / Inexistent or poorly shared rules/ definitions, mentioned by 48% of companies.
- / Difficulties related to organization (unclear governance, poorly defined roles...), mentioned by 37% of companies.
- / Inefficient Master Data Management (MDM) processes (lack of transversality, existence of several parallel and poorly coordinated processes regarding the creation/modification of data etc.), mentioned by 34% of companies.
- / Inappropriate informatic applications, mentioned by 20% of companies.

Even if these observations are widespread across the firm, the value that could be added thanks to a master data governance project is still not emphasized enough by the project's sponsors. Indeed, the difficulty of a master data project is that it takes place both everywhere and nowhere.

How to move beyond a widespread and generalized feeling within different operational sectors ("data is badly exploited") to a specific value addition?

Invest time to prove the value addition:

Value creation is the rational objective of every firm leader, even more when this leader is also a shareholder of the company (which is the case in many medium-sized companies). It is measured comparing the investments needed by a data governance project (source of costs for the firm) to its benefits in the short-, medium- and long-run.

It is easier to convince the executive committee about a project when the project is demonstrated to be economically profit-

able and to have a good return on investment (ROI). The incremental income earned or expected thanks to the project, in other words, the project's impact on the results of future years (increase in sales revenue, decrease in costs) needs to be calculated and compared to the resources used. Then, this ratio must be compared to the minimum required by the company.

However, value creation is not only about economic profitability. Other economic value creation parameters can be highlighted:

- / **What is the impact on the firm's assets?** Let's not forget that master data represents an intangible asset, whose securing creates value.
- / **What is the impact on liquidity?** Will the project allow the firm to decrease trade receivables, to optimize inventory management, hence increasing liquidity?
- / **What is the impact on risk management?** Is there an impact on reputational risks, logistic risks?

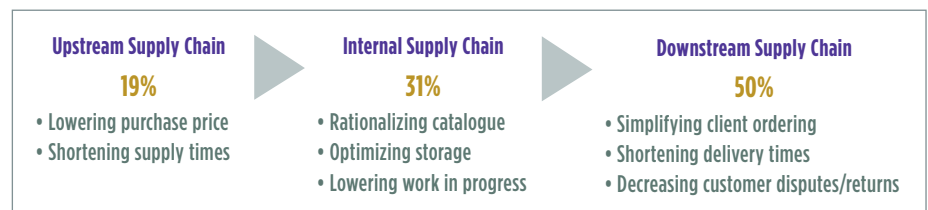
Lastly, the executive committee will also be susceptible to more indirect benefits, providing a competitive advantage to the firm, or securing its position in the long-run:

- / **Decision making improvement** with reliable and up-to-date indicators from master data.
- / **Consistency improvement** of the organizational processes and of the cross-over between teams.
- / **Compliance improvement** of the firm to the standard requirements.
- / **Corporate culture development** using a mutual language (particularly crucial aspect in a merger/acquisition context).

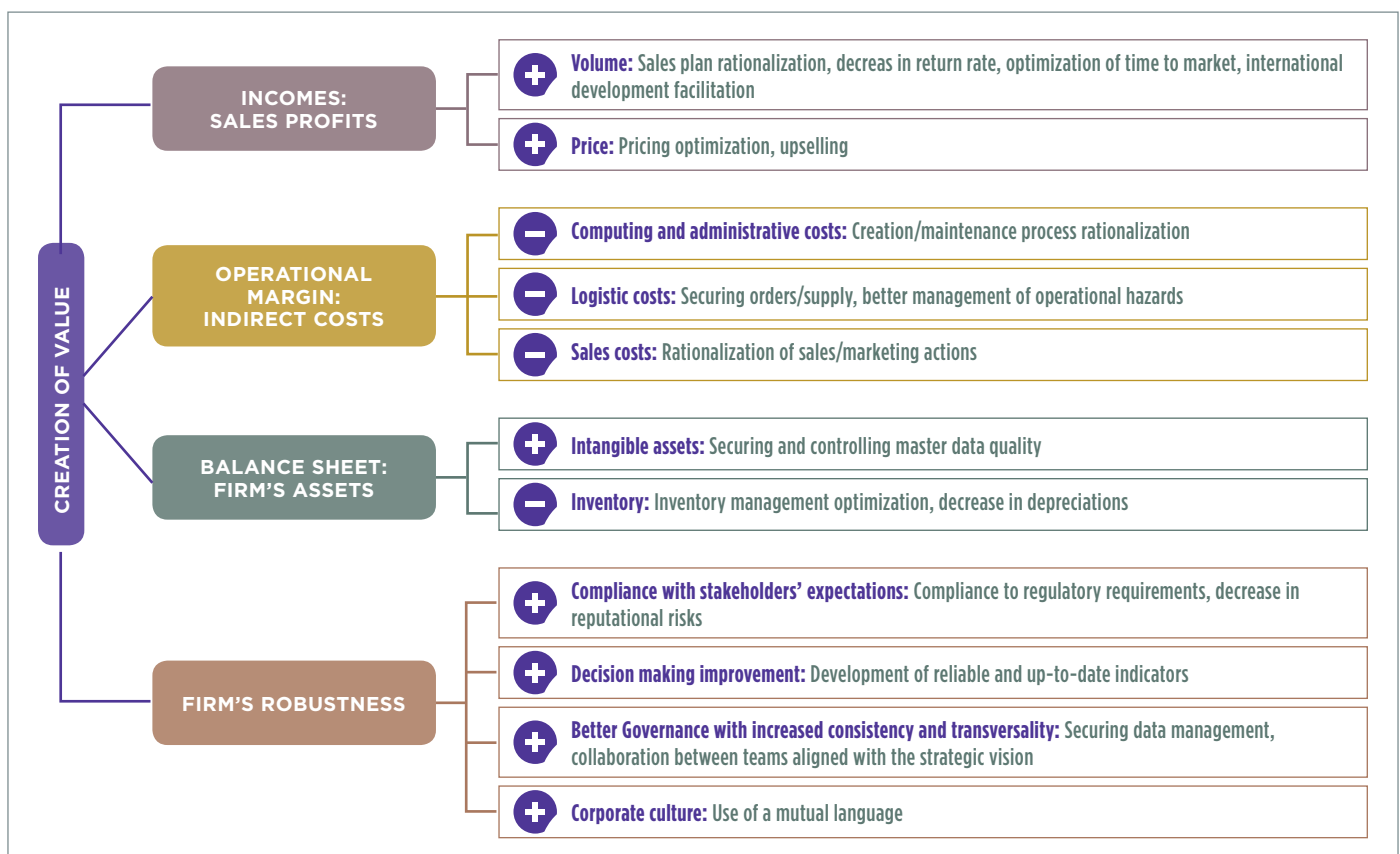
Indeed, a study published by Ventana Research proves with evidence that the three most often mentioned benefits for firms using MDM tools are:

- / **The improvement of returns on investment (ROI)**, mentioned by 56% of companies.
- / **The improvement of data quality for decision making**, mentioned by 55% of companies.
- / **The improvement of operational effectiveness**, mentioned by 45% of companies. Indeed, as shown by the 2019 Wavestone Master Data Study, companies consider that well-managed master data have a considerable impact on Supply Chain.

Supply Chain challenges related to Master Data management (Master Data study, Wavestone 2019)



Value creation for a master database governance project



Benchmarking:

It is sometimes difficult to precisely measure the project’s estimated added value. To get access to this macroeconomic information, the project must be supported on the operational side by some senior representatives of the firm, which is not always the case.

The other option then can be to create a **Master Data governance maturity radar** and compare the firm’s position to rivals’ ones.

This radar must take into account the main aspects of a good data governance strategy:

- / **How does the current integration of master data work?**
- / **Which data is shared and at what scale?**
- / **Are definitions mutual and shared?**
- / **Is there an organization dedicated to data management?**
- / **Are there standardized management rules/methods, and if so, at which scale and at which level of detail?**

Such an exercise may highlight an existing gap, that must be filled in order to remain competitive, eventually justifying the aim of the governance project scheduled.

To facilitate the support of leaders, be smart with the timing

Even if the intrinsic value created for the firm by the project is sometimes difficult to estimate, **reminding of its utility in the scope of a larger initiative, like a small brick in a large wall to build**, is particularly convincing. This requires knowing how to take advantage of the transformation opportunities of the firm, to launch the project at the right time.

Therefore, one essential question needs to be asked: **in which context is it relevant to raise the question of Master Data governance?**

Indeed, some contexts are more appropriate than others in order to reach the required synergies.

Some essentials:

- / The company starts a digital transformation plan and wishes to fully

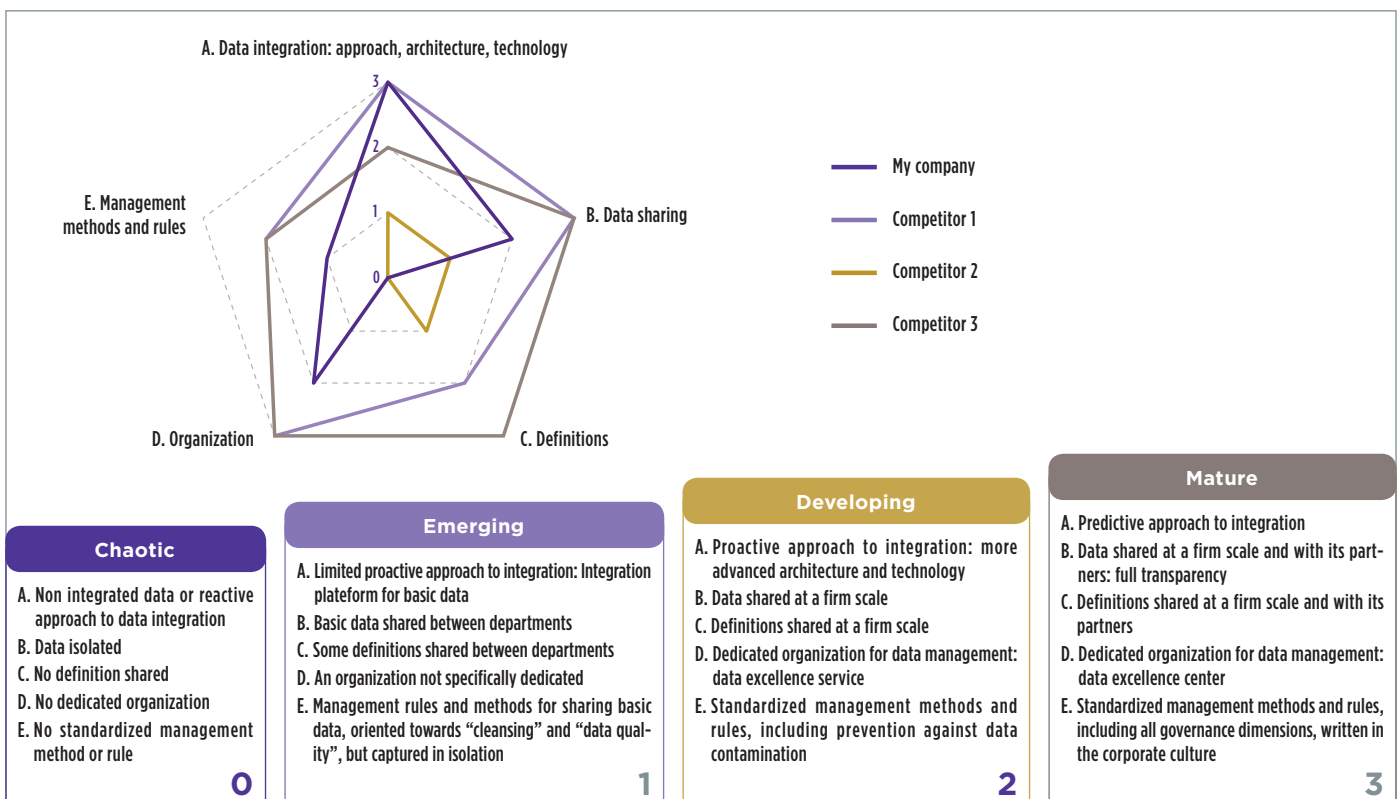
implement digital technologies into all its activities.

- / The company starts a project to redesign the processes in relation with its information system: PLM, ERP, SRM, MDM, PIM...
- / The company wishes to set up a roadmap of its information systems.
- / The company wishes to modernize its means of production by leading “Industry 4.0” or “Future Industry” projects: augmented reality, artificial intelligence, cyberphysical systems, etc.

For instance, if a firm wishes to change its ERP, without a good master data management policy, because of the existence of data duplicates, or of inconsistent data, data consolidation will be difficult after the integration, which will deeply penalize profitability management. The impact on business is therefore eminently important.

Therefore, leading a master data project allows to secure the returns on investments of the firm’s other projects.

Benchmark of maturity levels regarding master data governance



DRIVE THE OPERATIONAL AND MANAGE THE CHANGE

The executive committee’s adherence is necessary but is not enough. Even if it seems to be obvious, **a successful master data project is 80% effort on the operational side, by frontline employees, and 20% by IT.** The difficulty is to have frontline employees feel involved in the project, as such topics are sometimes far from their day to day activities. Involving some operational profiles who have com-

petences in data and systems is often a profitable option for the firm.

In this environment, your approach to support changes at all levels is a key to success:

- / **Top management** to encourage initiatives and sponsor them.
- / **Middle management** to build the data governance of tomorrow.
- / **Frontline employees** to contribute to data quality.

suppliers, employees, organizational structures, publications...). Then you must prioritize this master data according to current business challenges and according to future opportunities brought by your next digital transformation projects. For example, an ERP project can be a good opportunity to improve the governance of your items master data. Similarly, an CRM project represents a good occasion to review and secure your customers master data.

If we try upstream to analyse the value creation of a specific master data project, we can also think the other way around, **based on company issues and strategic priorities which master data should be targeted?**

Of course, choosing which master data to prioritize is not only guided by the expected profits...

WE KNOW WHO TO INVOLVE AND HOW TO INVOLVE THEM... NOW LET’S SEE WHAT TO DO?

Quickly assess the existing situation and align stakeholders with the limits and priorities for the transformation.

First, you must start by collecting all company master data (customers, items,

Companies consider that the quality of information available is a shared responsibility between operational and IT in 42% of the cases. (Ventana Research)]

Master data to prioritize depending on a company’s strategic stakes

STRATEGIC CHALLENGES	LEVERS	MASTER DATA TO TARGET		
		Products	Clients	Suppliers
GROWTH: INCREASE IN SALES AND PROFITS	Speeding up the integration of acquired firms	X	X	X
	Having effective piloting indicators	X	X	X
	Decreasing return rates	X	X	X
	Having a 360° client vision	X	X	
	Streamlining products portfolio	X		
	Defining the most appropriate prices to the market	X		
	Upselling	X		
PERFORMANCE IMPROVEMENT	Decreasing administrative and IT costs	X	X	X
	Decreasing staff costs	X	X	X
	Managing inventory and transport	X		X
	Optimizing the suppliers portfolio: globalizing purchases and buying cheaper	X		X
	Securing supply			X
INCREASE IN LIQUIDITY	Optimizing inventories management	X	X	X
	Decreasing trade receivables and better manage frauds		X	
RISK MANAGEMENT	Reputational risk: maintaining the trust of clients/suppliers	X	X	X
	Prevention/mitigation of logistic hazards	X	X	X
INCREASE IN ROI	Integrating new technologies cheaply and in time	X	X	X
REGULATORY COMPLIANCE	Meeting the current regulatory needs	X	X	X
SECURING ASSETS	Securing its intangible asset: database	X	X	X

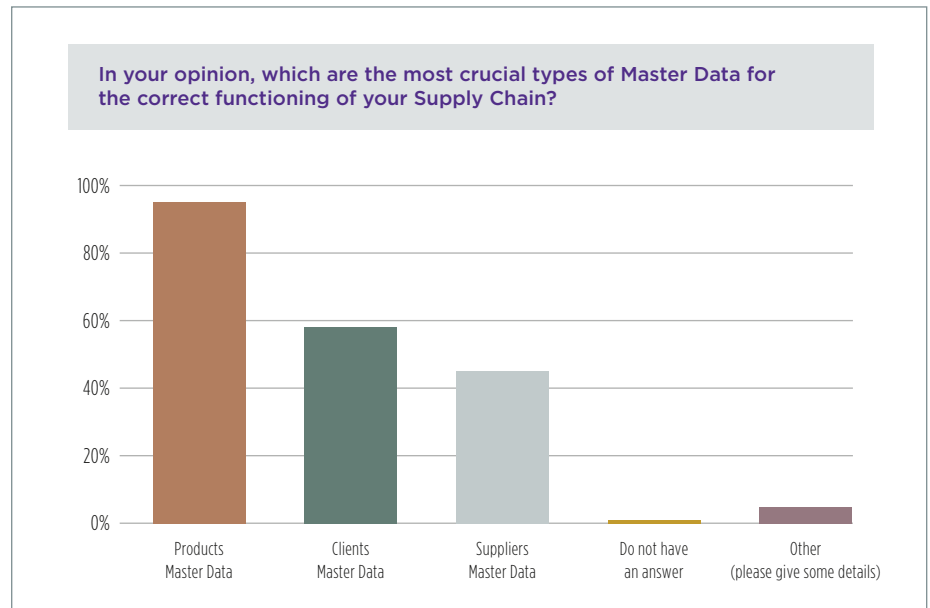
These strategic benefits /impacts must be confronted to the difficulty of the project.

As an example, as we can see on the 2019 Wavestone Master Data Study, acting on your products master data can have a real positive impact on your company and is therefore often considered as strategic.

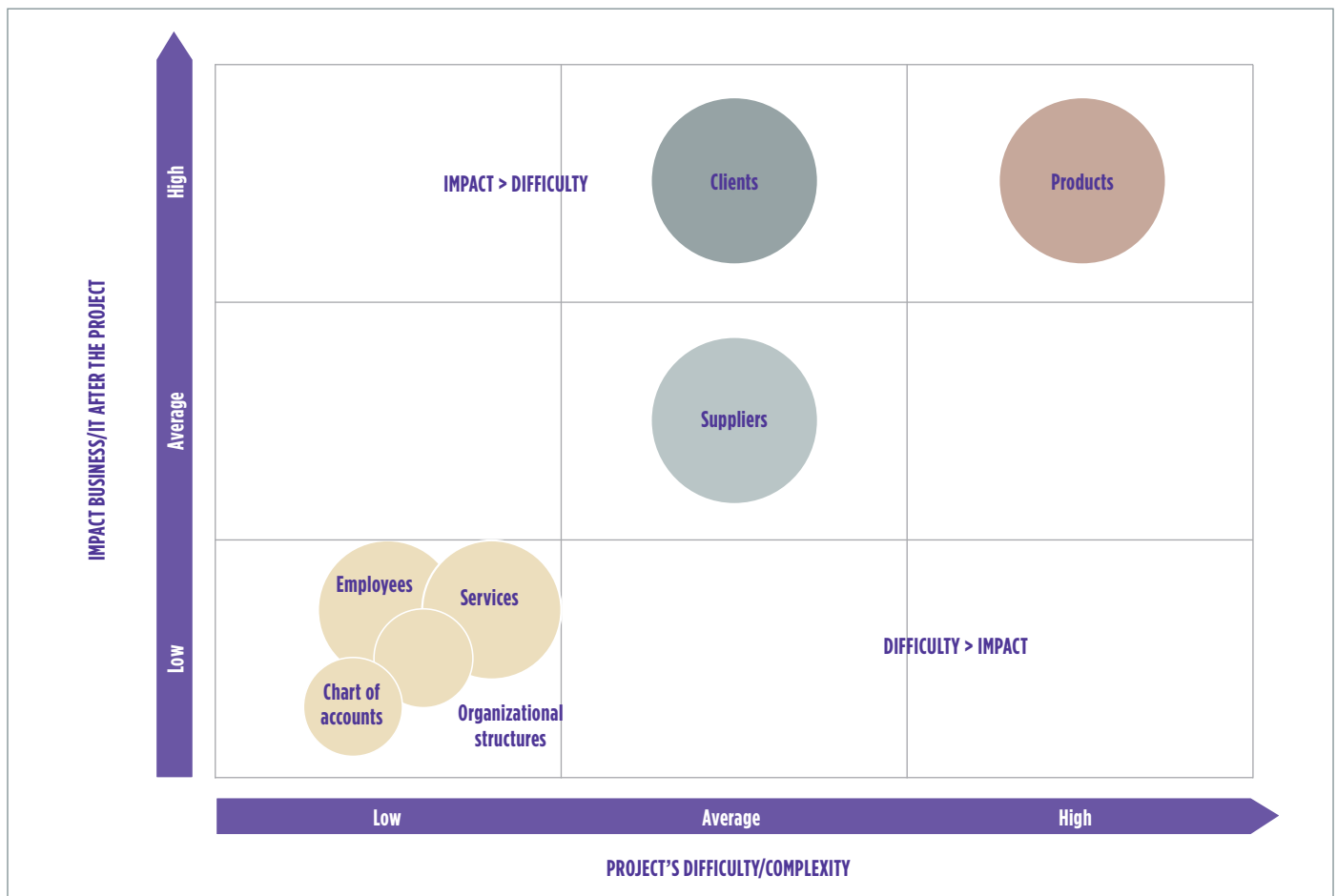
However, the products master data is often of great complexity. Companies must check they have enough resources to engage the necessary efforts.

If the MDM is the heart of the company, the master data project manager is a cardiologist. Same as this specialist, before recording all data, the project manager must diagnose precisely what the company needs, based on its constraints.

Master Data thought to be the most crucial for the correct functioning of the Supply Chain (Master Data study, Wavestone 2019)



IT/Business impact of a governance project depending on the complexity, according to the different master data



Preferably drive the reflexion by governance rather than tooling only

Governance is a major lever to improve business processes (procure to pay, sales & distribution, ...). Even if a “best-in-class” data governance relies on solutions, **we need to first define the “what” before the “how”!** In specific cases, a governance project needs to be supported by specific tooling. However, be careful, don't use it systematically. Even if it seems comforting to choose an IS solution, it can also be expensive and not useful. And to decide which solution you will use, you need to have the outline of your governance already done. **An IS solution will not be useful if you do not know exactly what to do with it or in which way to use it.** The solution must be seen in the context of your level of ambition, target processes, organization and skills. The implementation of specialized data management solutions (MDM, PIM, DAM) is therefore not always relevant in the short-term.

As previously mentioned, Master Data Management is like the cardiovascular system of a company. When the patient has a heart disease, he/she can receive a pacemaker. In the same way, a company could need a specific MDM solution to support its business. However, before doing such operations, some precautions need to be taken:

- / Upstream, before implanting a heart pacemaker, doctors make sure, given all risks of infection post-operation, that a pacemaker is indeed the best solution. Similarly, before implanting an MDM, the company needs to be sure, given the implementation costs and the costs related to the necessary change management, that this solution is truly useful and adapted. Thinking about data governance strategy is key to make a decision on this aspect.
- / Just before the surgery, for the implantation of a pacemaker, the body must have been prepared for the surgery (fasting), some indicators must be checked (blood pressure, pulses, oxygen saturation, etc.). In the case of the set-up of an

MDM solution, the firm also needs to make sure that the preliminary work needed for such a transformation, has been done. Management rules, definitions, and organizations set up by a governance project are part of this needed preparation.

Tooling can still be necessary

Once these precautions have been taken, if the firm thinks it needs a new IS solution, one question must be asked: which solution does the firm really need?

MDM solutions allow companies to centralize, reconcile and optimize all marketing and technical information of their catalogues inside a unique source. The right information is thus accessible in the same place, at the right time.

3 types of solutions stand out on the market:

- / **Master Data Management (MDM)**, gathers in a unique database all strategic master data of the firm: clients, suppliers, articles, HR processes, etc.
- / **Product Information Management (PIM)**, gathers in a unique database all master data information about products only (technical characteristics, descriptions, nomenclatures, etc.).
- / **Digital Asset Management (DAM)**, organizes and classifies media files (photos, videos, illustrations, audio) and so, is particularly useful for information regarding products and promotional content.

The MDM solution is a back-office tool: its objective is to create a homogenous management system for master data, and so is deeply appropriate as part of a general plan to improve master data quality.

PIM is a tool that speeds up business: it contextualizes data over the different sales and communication channels, which is particularly useful when the firm has several parallel distribution channels, as in the retail sector (use of e-shopping): information about products must be easily accessible to sellers, but also to buyers and partners. Hence, PIM ensures

the good implementation of marketing strategies. However, to finalize its commercial strategy, even in the retail sector, customers' master data is crucial as well; therefore, in some cases, all customer master data needs to be unified in an MDM solution...

DAM is a communication tool: unlike PIM, its main advantage is that it can contain and regroup huge volumes of data, of different natures (photo, video, audio), which is highly relevant for a firm that needs to share grouped media (internally as well as externally).

Therefore, choosing between these three solutions, (knowing that choosing one doesn't stop you from choosing another) depends on the expected benefits for this project, as previously mentioned.

HOW TO MANAGE YOUR PROJECT EFFICIENTLY

All aspects must be considered in the implementation of a master data project. Cleansing data is a vast and essential task. This task is huge, and represents hundreds or thousands of man-days. The right methods to adopt to minimize its cost:

- / **Reduce the scope of data to clean** to focus your attention on the essential data to start.

During a customer master data project, it is possible to focus first on the data necessary to create a customer file: name, billing address, SIRET etc.

- / **Use, as much as you can, external data rendering services** (DUNS & BRADSTREET, Creditsafe, BvD, Ellisphere, ...). This is very efficient for third party data (customers, suppliers,...).
- / **Use data science:** by sorting and analyzing mass data from multiple sources of information, you can extract useful information more efficiently. This will greatly accelerate data cleansing activities.



IN BRIEF

The governance of master data is a major strategic challenge in the digital age. It is a key lever for a company's productivity and competitiveness. However, conducting such a governance project requires taking certain precautions and avoiding a few pitfalls to maximize its chances of success:

- / Be sure of the involvement of all teams in the company: the board needs to be involved, but all front-

line employees as well. Without them, change can't be implemented with sustainability and efficiency. The company must be able to explain the value added of the project and know when the best moment is to do so.

- / Be able to prioritize actions rapidly and efficiently considering the environment and the challenges of the company.

- / Do not limit your choice to finding the right solutions but think also of

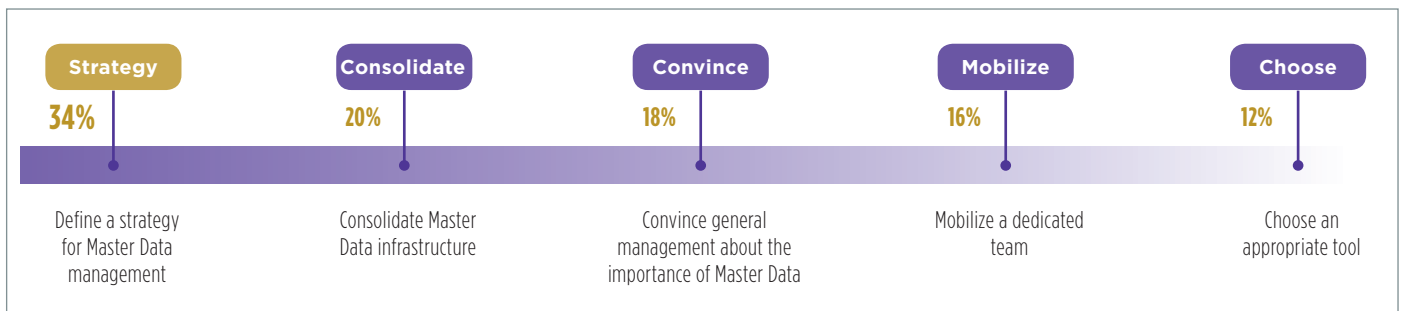
the governance of your master data itself.

- / Adopt good habits to decrease costs.

As demonstrated by the 2019 Wavestone Master Data Study, **strategy is key**.

To be certain a project will be implemented successfully, the company needs to have a pragmatic upstream vision. Agility and adaptability are not only part of the success, they are essential.

Steps to initiate when starting a Master Data project (Master Data Study, Wavestone, 2019)



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