



DATA ROCKET®

# Guide

**IT AND BUSINESS  
COMMUNICATION RUN  
TOGETHER – MAKING  
A DATA GOVERNANCE  
PROGRAM SUCCESSFUL**



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## IT AND BUSINESS COMMUNICATION RUN TOGETHER – MAKING A DATA GOVERNANCE PROGRAM SUCCESSFUL

**Successful data governance facilitates the strength and success of an enterprise; effective collaboration between the business and IT is the key to building this.**

Are problems identified and solved in turn? What if unfortunately they are not? If poor data quality is hindering a business process at some point in the operations of a company, and if it is noticed, this does not mean that the matter can be communicated, that the cause can be clarified, and that it can be remedied by IT. Why is this so? Faulty data is often identified too late,

its cause is often not investigated at the data management level, and as a result the errors continue to propagate.

Although small errors do not always have a major impact on a company, they are costly when they accumulate. Poor data quality costs money. This is where data governance can add value to the company. The requirements for data governance could be outlined as such: eliminate ambiguity, establish transparency, and define rules. In view of the increasing volume of complex data, this seems like a colossal task, and many companies fail to adequately meet this challenge. One approach to meeting such difficulties is outlined below.

**Data governance gives meaning to enterprise data and builds trust and knowledge across the organization. Painful mistakes are avoided and digital transformation is supported.**

### Small Mistake, Big Effect

On September 23, 1999, the \$125-million Mars Climate Orbiter satellite burned up in the Martian atmosphere. The cause of this failure, which was as spectacular as it was expensive, was incredibly simple. Important values had been entered into the computer in the metric unit of force that was internationally customary – the Newton – but the U.S. satellite builder had calculated these values in the Anglo-American “pounds of force.” In the corresponding field of the navigation software, someone had simply defined the wrong unit – or rather, a unit about which there was no appropriately documented consensus among those individuals involved. And either someone was not paying attention when entering the value or did not have a clear understanding about unit definitions. The result: the trajectory was wrong, and the probe came much too close to Mars.





Hopefully such data quality deficiencies will not have such a massive impact on a company. But if they occur repeatedly they can be costly. An example from a manufacturing company illustrates this well. A freight forwarder is commissioned to pick up 5,000 kg of an ordered product from the shipping department. When the truck is ready, it picks up a package weighing just five kilograms, i.e., the five-ton truck is driving with a very light load, which goes unnoticed.

How can this be? The cause is the same seemingly trivial error as in the case of the Mars probe. The product is maintained in the master data record with an incorrect unit of weight; in the corresponding field the number of kilograms – rather than the number of grams – is entered. The customer has ordered 1,000 pieces. Theoretically, the delivery should weigh five metric tons; consequently, a delivery for 5,000 kg is initiated. The problem is only

noticed when the package is bundled and is to be loaded onto the truck with a real weight of only 5,000 grams. Will anyone report the incident? Probably not. The package will probably even be delivered by a shipping service provider and the truck will continue empty.

Perhaps the worst thing is that the problem may continue to occur because the input fields remain as they are. Maybe the next employee will notice that he or she must enter grams. And he or she will point it out to a colleague and stick a Post-it note on his or her screen. But when he or she moves to another department, the yellow Post-it note ends up in the trash. The colleague goes on vacation, and the important information is simply not available to the substitute. The next time too the error is not noticed until the process is underway; it has not been corrected in advance but has been passed on.

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## POOR DATA QUALITY COSTS MONEY. AND IT IS VERY WIDESPREAD.

It is not even just about units of measurement as one final example illustrates: The CEO of a telecommunications company in North America wants to know how many customers the company has. For a person who handles data, it seems perfectly clear that all active customers should be counted. Therefore, the person receiving the request determines the value from the ERP system and reports the number of customers as 65,000. A few days later, the CEO complains that this is completely wrong – the poster in the elevator already announces in large letters that 300,000 customers enjoy the company's products.

How did this discrepancy come about? A quick investigation that is not even time-consuming

reveals that the marketing department used the number of clicks on the website for the number it used on the poster. In other words, it assumed that the number of clicks indicated the actual number of customers. The example highlights a very basic idea: It must be clear how an active customer is defined for this specific company.

Do you think the errors described did not occur because incorrect values were entered? The causes are found on another level, rather on a definitional level. The answer is in the metadata. Here the question arises: why are such obviously important things not clearly defined in advance? Why is information regarding metadata not available to everyone?



# WHAT DO GUIDELINES DO?

With the help of guidelines the company ensures that it is using the correct data when making decisions. The policy of the telecommunications company clearly states what parameters should be used to determine who a customer is and how that differs from who a prospect is for the company. And regarding the confusion with respect to units, the policy provides information on what units of weight and measurement are used for finished goods that are handled by the company.

By means of guidelines a company pursues four essential goals:

- 1.** Avoiding deviations in the evaluation of data (a clear definition of the basis)
- 2.** Creating a basis for measuring data quality and for checking compliance
- 3.** Creating access for employees to all information and allowing them to see guidelines as guardrails
- 4.** Establishing the golden record or single point of truth where everyone in their domain has access to the necessary information

**Golden Record or Single Point of Truth: letting people know the set that combines relevant attributes from all data sources to form a superset of all attributes.**

## Requirements for Data Governance: Accountability, Transparency, Guidelines

To start a data governance program, the essential requirement is to define roles and responsibilities. Accountability must be defined at each level of the organization. It must be known which persons on which hierarchical level are authorized to make decisions or to help solve problems or even who assumes responsibility. There must be a clear regulation of the processes within data governance. How is communication carried out, at what intervals, and with what media? The next step is to make the collected information about responsibilities available to every employee, regardless of whether they are involved in data governance or part of the operational business. Along with communication, transparency is one of the most important tasks of data governance.

One can certainly implement data governance as a noninvasive virtual solution. Those responsible bring the necessary knowledge to define common guidelines for the company. This is not only a prerequisite for preparing the very important data quality rules and their measurements, but also for defining the standards within the company. What internal rules apply to a company for the definition, maintenance, or use of data?

Data quality indicators should be determined on a process-oriented basis. In concrete terms: Not only the field itself must be checked, but also the context (i.e., the business process in which the master data field is used).

For this, large amounts of information about data must be evaluated and viewed in a structured manner. At this point, many companies succumb to these challenges because the demand looks as if it can hardly be mastered in view of the complexity and the high volume of data in the digital age, at least not without external help and within a reasonable amount of time.



# EXISTING SOLUTIONS AND THEIR SHORTCOMINGS

Many companies create tools that are supposed to perform corresponding checks and analysis. However, effective implementation of these tools requires first the assimilation of many different systems. As a result, data catalogs are created and business processes are mapped and documented. In many companies, roles and responsibilities are stored in Excel.

What is necessary, however, is a solution that maps the interplay of all relevant factors and integrates all of these disparate pieces of the puzzle.

## The company would need:

- **from an organizational perspective**, a platform to bring together those responsible so that they can make conscious valid decisions
- **from a technical point of view**, system information down to field level to be able to use the so-called metadata
- **from a business perspective**, a tool that does not neglect business processes and, in global companies, takes regional differences into account
- finally, a way to define the rules for each of these business processes at the field level for data maintenance and migration, as well as for data quality checks.

Altogether then the challenge for management often seems immense.

## Introduction of a Governance Organization

A solution to consider is the introduction of a program from a governance organization that brings the business units, IT managers, and those responsible for operational data to the same table. The way to start with such an introduction can be split into two phases:

### Phase 1: Inventory

In the first phase all that needs to be invested is time, to take a close look at the existing situation. Inventory must be taken to determine who does what with data and to define roles and responsibilities. At every level of the organization, someone with an enterprise-wide view and responsibility for data is needed to break down the silos in the organization and to manage data as a shared resource. At the same time, during the inventory process, that person must discover what is working well in the organization and what is not. Hence, best practices from different areas can be adopted. Also, the person responsible for data must define what data governance means for the company and obtain the support from management.

- **Who are the right people?**
- **Who is doing what?**
- **What are we doing (compared to best practice)?**
- **What is not working?**

In this way, a company can build up a governance organization piece by piece and gather all the necessary information. Processes, responsibilities, and accountabilities are formalized in parallel, and tasks are documented. With the support of a management team that puts the topic of data as a valuable corporate asset into the right focus, the first successes can be achieved quickly. The central point is that not only are data problems uncovered, but standardization is also effectively facilitated.



## Phase 2: Create Transparency

The next phase is about making the collected information regarding the inventory of the data and all interrelationships within the company visible. Existing documentation in various places should be named, and processes should be established for the adoption of changes within the framework of the organization. In most cases, the information is stored in various IT systems that can be referenced. This indicates that it is usually necessary to gather the information from various systems or files or even storage locations. Many companies maintain data wikis of various types. It is rather rare that everything is in one place.

One example of a solution is the DATAROCKET Guide tool by innoscale AG. It supports the management of governance areas in setting up the governance organization or in launching it.

An organization chart can be uploaded, and the names of the business responsibilities can be transferred into governance structures. The persons and groups who make the data-related decisions can be defined quickly at the various levels. For use in the technical structures, the tool offers standard structures for IT systems, such as Salesforce or SAP, or it enables the definition of one's own structures. Responsibilities can be defined down to the field level, and the corresponding assignment to the processes can be clarified. Finally, the tool also offers workflows for creating guidelines, which can then be transferred to data quality tools after the technical details have been enriched. In this way, the foundation is laid for the determination of key figures and the data quality in the company can be continuously and sustainably improved.

### The goals of this approach are:

- a governance organization is rolled out successfully and is managed appropriately
- communication between IT and business is improved
- accountability, transparency, and guidelines are formalized
- data quality issues are addressed proactively
- the data governance organization creates value for the company