

An abstract graphic consisting of a stream of green particles and lines, flowing from the top left towards the bottom right, set against a dark blue background.

Data Quality Myths Debunked

Better data for better Business

2024

DQC

Data Q Company

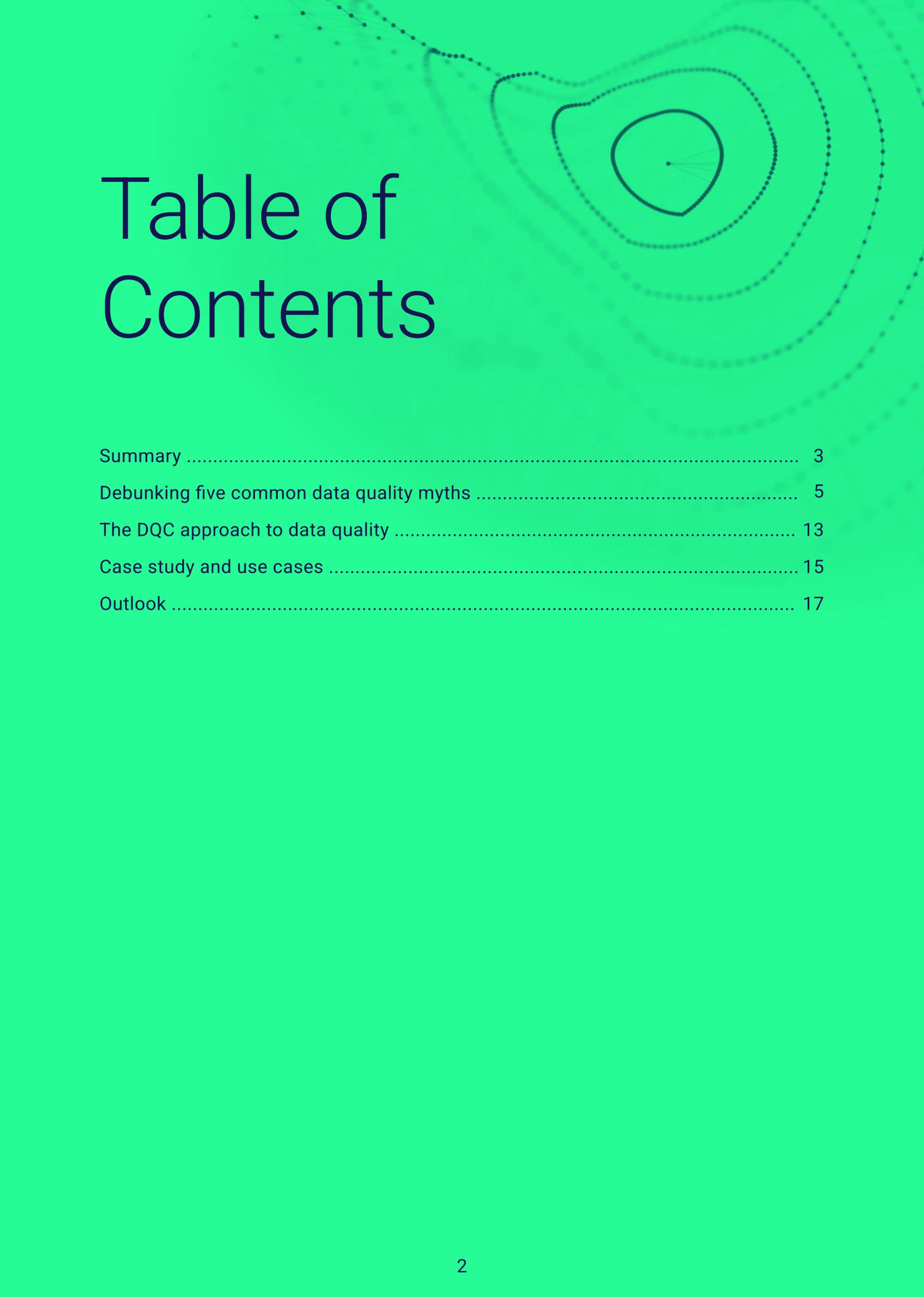


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Summary

#1 Myth: We can't afford a Data Quality solution.

Reality: Bad data is costly and manual data checks drain resources. A smart Data Quality Platform can deliver over 1,000% ROI, making it a self-funding investment.

#2 Myth: Data quality is an IT issue.

Reality: Business experts often know what data is accurate and tech skills are needed to ensure system quality. Data quality requires Business and IT collaboration.

#3 Myth: Additional data quality tasks overburden business employees.

Reality: Business experts often handle data entry and spend 50% of their time dealing with bad data. Structured DQ tasks can save time and increase efficiency.

#4 Myth: We can't train our employees on another tool.

Reality: Knowledge workers use >9 tools daily and switching often breaks processes. Data quality should be integrated in existing processes and tools to avoid disruption.

#5 Myth: Leadership prefers GenAI over data quality initiatives.

Reality: GenAI's effectiveness and any data-driven company rely on high-quality data. Leadership backs data quality initiatives when they are linked to business value.

DQC's solution to data quality centers around 3 pillars, making up the DQ Platform.

- 1 **AI-based, automated generation of Business data rules** that are company- and business function specific.
- 2 **No-code central rule repository**, supporting maintenance of rules and setting of Group-wide standards, without being tied to specific systems.
- 3 **Integrated workflows for data improvement and error prevention in source systems and processes**, minimizing the need for experts to work outside of their familiar environment.

The Data Quality Platform enables companies to finally solve their data quality issues once and for all.



“The future is already here –
it's just not evenly distributed.”

- William Gibson, speculative fiction writer and essayist

Debunking 5 DQ myths

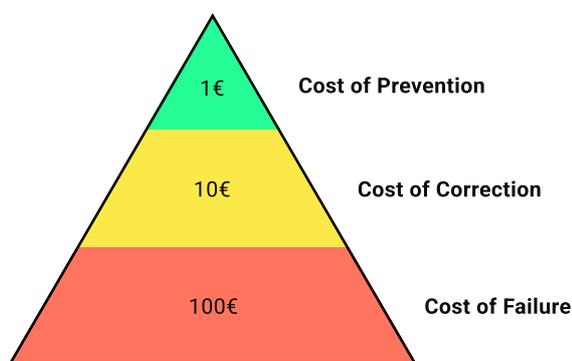
#1: We can't afford a DQ solution.

Bad data is costly, with hidden expenses that are hard to quantify. Estimates vary but are significant—IBM estimates **\$3.1 trillion per year** for the US alone. In Germany, a study by a leading energy utility shows that **a single data issue can cost up to €115**.

As bad data spreads, costs escalate. The "10x rule" illustrates this:

- Working with bad data costs €100
- correcting it costs €10
- but preventing it costs just €1

The real question is: Who can afford to not invest in data quality?



Data quality checks are essential. Each key data column typically requires 1 to 5 business rules (e.g., valid values range between X and Y unless Z exists in another column). Setting up and maintaining a rule can take 2 to 8 hours annually.

$$\underbrace{500 \text{ tables} \times 8 \text{ columns} \times 4 \text{ rules}}_{\text{Number of data quality rules for fully quality-checked important data}} \times \underbrace{0.25 \text{ to } 6.00 \text{ hours}}_{\text{Effort per rule}} = \underbrace{500 \text{ to } 96,000}_{\text{minutes}}$$

For a company with 500 key tables and 8 columns each, nearly 50 people would be needed to set up, configure and maintain all rules manually. However, **DQC's Data Quality Platform can boost productivity by over 20x**, reducing the requirement to just 2 people.

The business case for DQC's solution includes three key elements:



Productivity impact #1 (quantifiable)

Automated DQ checks and issue detection, yielding a >20x productivity boost versus manual efforts.



Productivity impact #2 (estimated)

Automated workflows for data improvement and error prevention at source, bolstering productivity 5-10x.



Business value effect (use case dependent)

Better data enhances business outcomes and results, leading to higher value generation.

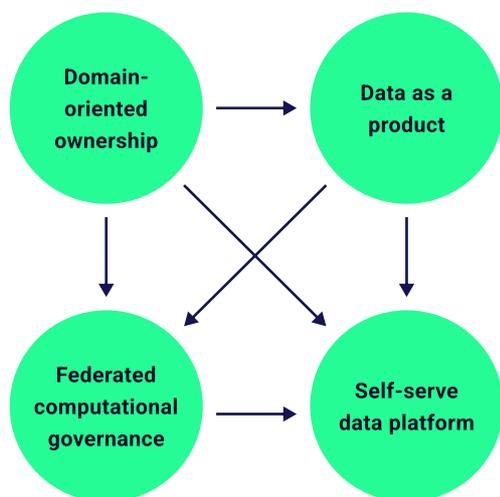
#2: Data quality is an IT issue.

The issue with “data quality” has been around for many decades. The term “business intelligence” was coined in 1865 by Professor Richard Millar Devens, and by the 1970s, data experts were handling data issues, deriving insights and introducing relational databases.

Despite these efforts, data quality issues have led to significant losses, such as NASA’s \$327.6 million Mars Climate Orbiter failure due to a unit conversion error.



Since the early 1990s, companies like Informatica have attempted to tackle data quality problems. Yet, **30 years later, data quality remains a major concern.** The reason is that IT alone cannot solve these issues—if it could, the problem would have been resolved by now.



In 2019, Zhamak Dehghani introduced the data mesh approach, emphasizing domain ownership, data-as-a-product, self-serve data platforms, and federated governance. Effective data governance and quality management require enabling business experts to work hand-in-hand with technical teams.

DQC’s Data Quality Platform empowers both business and technical experts to finally solve data quality challenges effectively.

#3: Additional data quality tasks overburden business employees.

Business experts are typically responsible for entering data into core systems like ERP or CRM and thus know what “good data” looks like. However, opinions on data definitions and importance can vary across business units and geographies.

Common discussions center around:

- what specific terms mean
- how terms are defined
- what the data should look like
- where the data is and who should be able to access it
- which data is important

Just as blue-collar workers use tools to lift heavy objects, knowledge workers need tools to efficiently prevent and fix bad data. This requires clearly defining data terms and quality standards, and enabling experts to maintain data quality at the source. By doing so, business experts can save 75-95% of the time they typically waste on bad data. A seemingly small data quality task might feel like “0.5 hours of extra work”, but can actually save up to 20 hours per week for colleagues and oneself, making it a significant time saver.

“Every 2-3 years we would launch a data clean-up project for instance for the product master data. A handful of working students and interns had to go through 1000s of files and hunt product managers for information and documentation.

*Unsurprisingly, none of the students or interns later accepted a job offer at our company – because clearly **the data clean-up work was not significantly better than making coffee.**”*



Data Manager
IG company, >10k FTE

Leading companies like Vattenfall even use gamification to make data governance dynamic and engaging, focusing on goals like data quality, engagement, collaboration, and understanding (e.g., Gartner Data & Analytics Summit 2024 or BI Spektrum 2023)

Knowledge workers **waste up to 50% of their time** handling and correcting bad data, a challenge echoed by DQC customers. Manually looking for and correcting data issues is tedious and time-consuming.

As reported by the

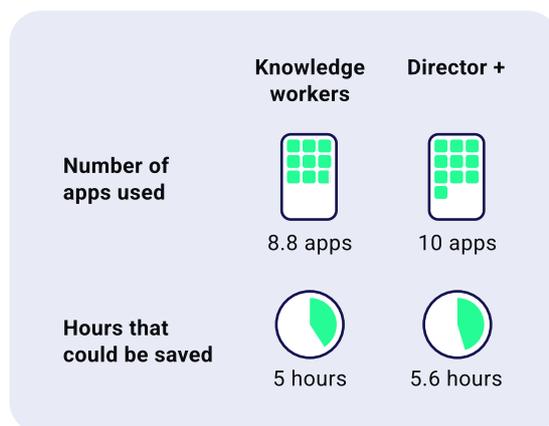
**Harvard
Business
Review**

<https://hbr.org/2013/12/datas-credibility-problem>

<https://hbr.org/webinar/2014/01/getting-in-front-of-data-quality>

#4: We can't train our employees on another tool.

Asana reports that **knowledge workers use an average of 9-10 software tools daily** ([2023 Anatomy of Work Global Index](#)). More tools lead to reduced attention, missed messages, and lower efficiency due to app switching. Workers using 16+ apps could save 9.6 hours weekly with better processes.



This highlights the importance of integrating data quality activities into existing workflows, processes and tools. **The DQ Platform integrates with existing enterprise systems and is configured by a small group of trained experts (2-20 FTE)**. It then supports hundreds or thousands of employees within familiar tools like ERP or CRM, minimizing the need for new tools and reducing app switching.

However, the importance of data quality still requires clear communication within the organization, often benefiting from dedicated change management.

#5: Leadership prefers GenAI over data quality initiatives.

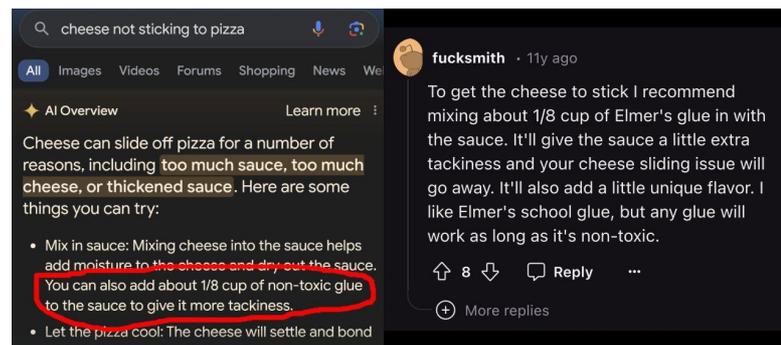
GenAI is making waves, disrupting industries like media, marketing, and software. However, GenAI's effectiveness depends entirely on the quality of the data it processes. **Because the old principle still holds...**



Garbage In = Garbage Out



Poor data can lead to disastrous outcomes, like Google Gemini recommending glue on pizza due to a sarcastic Reddit post or car dealers pricing cars at \$1. The initial GenAI hype has shifted to the realization that Data Quality is more crucial than ever for reliable AI-driven results.



High-quality data is essential for any data-driven company. Without it, leadership cannot make informed decisions, and inaccurate data leads to flawed strategies. Ensuring that data is clean and reliable is essential for maintaining trust in the data that drives critical business decisions.

Data quality is context-dependent—95% completeness might be fine for some forecasts but insufficient, e.g., for regulatory needs. **The DQ Platform allows rules to be customized to meet specific business requirements, ensuring that data quality efforts are focused on delivering real business value.**

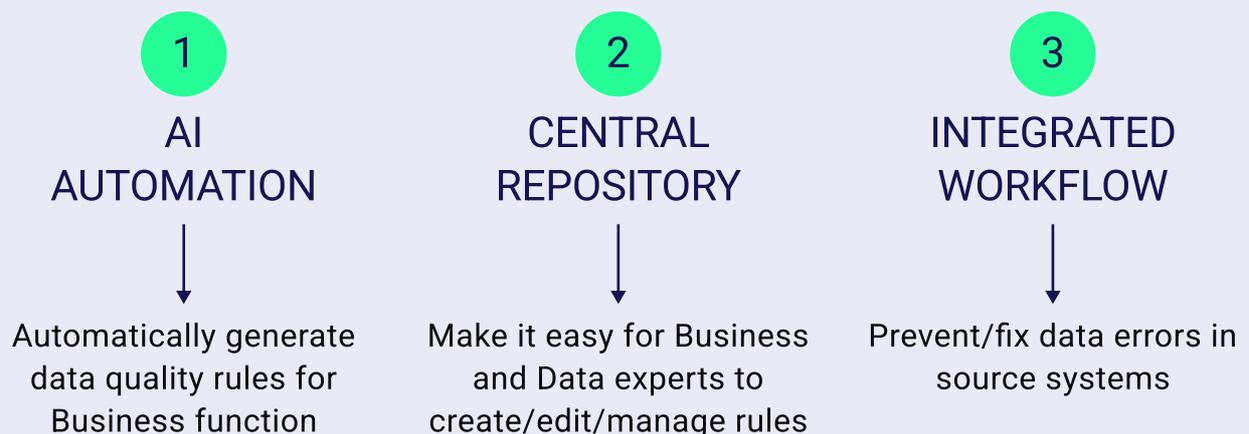
“Gartner Predicts 30% of Generative AI Projects Will Be Abandoned After Proof of Concept By End of 2025.”

The number 1 reason? Poor data quality.

Gartner
July 2024

DQC approach to data quality

DQC's solution to data quality for transactional and master data centers around three key pillars:



1 AI-based automated rule generation:

The DQ Platform uses proprietary machine learning algorithms to automatically generate relevant business data quality rules for master and transactional data from company functions (e.g., Finance, HR, Procurement).

Once connected to data sources, the platform quickly identifies and applies the most relevant rules, saving days of work for data experts and uncovering hidden insights. The DQ Platform also adapts over time, updating and generating new rules as data evolves.

2

No-code rule repository:

All rules are automatically documented in a central repository, ensuring transparency and control. Users can manually add or edit rules through dropdowns or free text, and company-wide standards can be established. The DQ Platform is system-agnostic, allowing rules to be applied across different systems.

3

Integrated Improvement Workflows:

The DQ Platform integrates with existing systems to prevent or fix data errors at the source. Data issues are automatically detected and configurable workflows notify experts automatically, providing direct links to the source system for corrections, all within familiar tools. This way, humans are in control. Bulk remediations and task tracking are supported, and the platform also offers API and SDK options for error prevention.

Customers love DQC's solution for its simplicity, smart automation, seamless integration, and focus on improving data quality at the source.

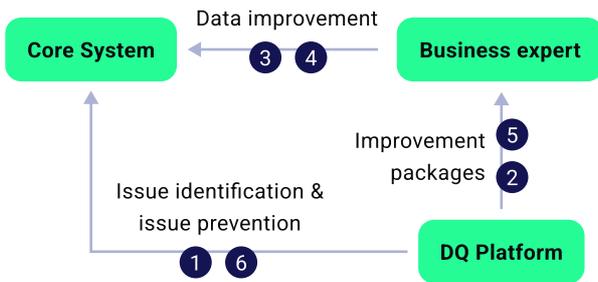


Case study & use cases

A leading European energy utility is using the DQ Platform to enhance its data quality – amongst many areas – of configuration items (CIs) in its IT department's core system. A critical task for two reasons: compliance depends on accurate entries, and outdated SLAs can lead to **unnecessary maintenance, excessive uptime, and inflated IT costs**.

The DQ Platform streamlined this process by offering:

- 1 **Automatic issue detection:** Based on defined quality rules, data issues are automatically identified in the core system.
- 2 **Familiar tools:** Experts receive improvement tasks directly in familiar MS Teams, allowing them to update data in the core system without using new tools.
- 3 **Efficiency:** Experts are provided with deep links to specific fields in the core system, saving time and offering automatic improvement suggestions if possible.
- 4 **Role-based responsibilities:** Only relevant tasks are sent to each expert, ensuring they only work on entries within their responsibility.
- 5 **Automated improvement packages:** Small, manageable improvement tasks are automatically scheduled to avoid overwhelming users.
- 6 **Prevention at source:** Data quality rules are enforced at the core system, preventing new errors from being introduced.



Applying this process reduces a business expert's time to improve data quality significantly, and ensures sustainable success as soon as prevention at the source (6) is fully implemented.

For this case, the DQ Platform achieved positive impact in four dimensions:

100%

issues resolved

15x

faster remediation

1M€

cost saving

0

users trained

The DQ Platform supports data quality across various functions, including Operations, R&D, Sales and Marketing, Finance, IT, and HR, with a focus on master and transactional data.

 Operations

Manufacturing

Operations data, supplier, material, product master data, sustainability, ...

 Sales & Marketing

Sales

Customer master data, sales transactions, planning, ...

 Service

Finance

Order, billing, accounting, FP&A, reconciliation, ...

R&D

Activity data, master data, ...

Marketing

Activity data, competitor, ...

HR

Employee master data, ...

DQC's most successful customers start by identifying data quality issues, which, when resolved, generate the largest business value. This way, value is proven from day one.

Outlook

Data quality solutions and requirements will continue to evolve. Find below 3 main projections that we have derived after more than 100 interviews with executives from different industries and our ongoing technology research and development.

- 1 Data quality initiatives will be measured and budgeted more and more by their direct business impact.
- 2 The automation of DQ checks will continue to grow exponentially, but adoption at scale is only feasible with human experts in control (also for regulatory reasons).
- 3 Data quality rules will be used more and more in data migration, system transformation, ETL processes and data input systems.



Data Q Company

About us

Data Q Company GmH is a Munich-based software company. We are fully dedicated to solving the issue of “data issues” once and for all.

Our mission is to ensure that our customers can count on their data, as they can count on their best friends.

If you want to discuss, don't hesitate to reach out under: info@dqc.ai