

Data Integration Solutions

# Collaboration Instead of Data Silos

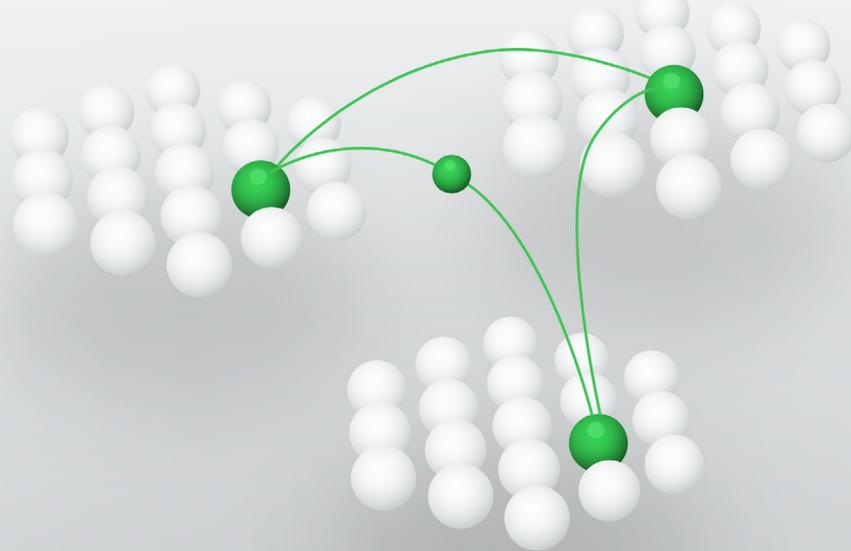
SCHOTT Realizes the Data Mesh Concept  
with One Data\*

**SCHOTT**  
glass made of ideas



**One Data**

\* previously „ONE LOGIC“



# Using Networked Data to Bring About Cultural Change in the Company

Collaboration Instead of Data Silos

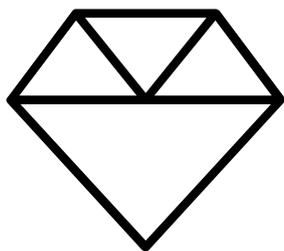
## SCHOTT Realizes the Data Mesh Concept with One Data

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glass made of ideas

**SCHOTT AG has been revolutionizing glass as a material for nearly 140 years, fueled by a pioneering spirit, innovative thinking, and forward-thinking approaches. As an international technology company, SCHOTT is continuously pushing the boundaries of glass innovation and high-tech solutions. It's no surprise that a progressive enterprise such as SCHOTT is already at the forefront of data management, seizing fresh opportunities for value creation across their organization.**

SCHOTT AG made the decision to move away from its centralized data architecture, and **One Data** was the ideal partner due to its innovative mindset. The glass specialist is now implementing a Data Mesh approach to strengthen data competence and improve data use in the individual departments within their company. This paves the way for faster implementation of all data-based projects and becoming a true "data culture" company. With the technical possibilities provided by **One Data**, SCHOTT can realize its vision of becoming a data-driven company.

"In almost all companies today, there is a central department responsible for data management. The central teams are flooded with requests, but usually do not have the necessary domain knowledge to use the data effectively. This situation leads to only a fraction of the actual potential being exploited. We want to turn the concept around and democratize the use of data for the company," says Martin Kemmer, Head of Smart Factory & OT4.0 at SCHOTT AG, as he explains the company's future data architecture. SCHOTT will continue to pioneer and break new ground to maintain its position as a technology and innovation leader.





*"With the help of One Data, SCHOTT AG was able to move away from its centralized data architecture and implement the Data Mesh concept, strengthening data expertise and the creation of value from data throughout the company."*

Martin Kemmer  
Head of Smart Factory & OT4.0,  
SCHOTT AG

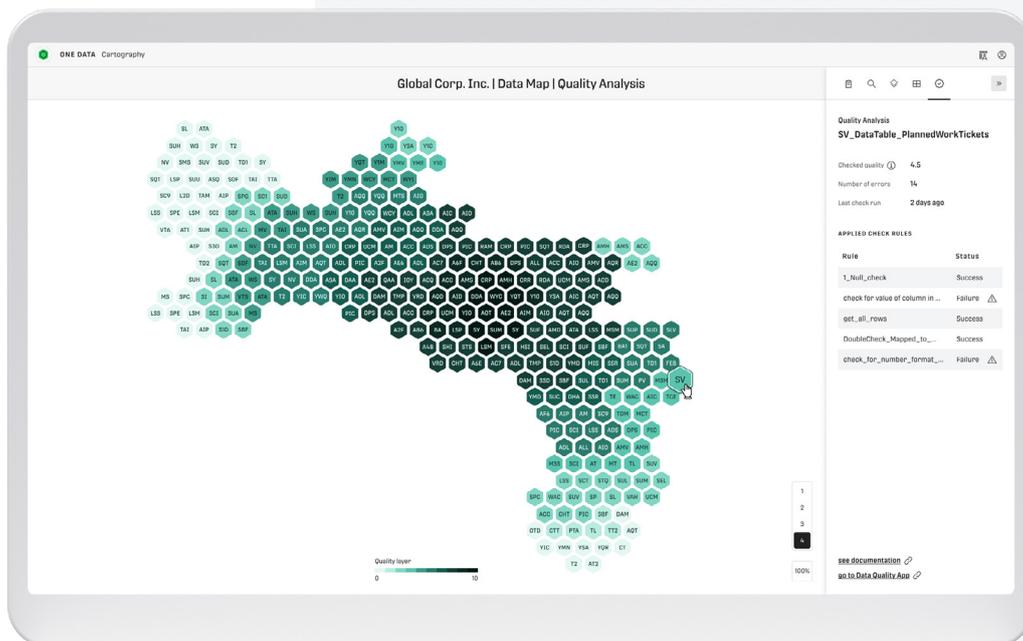
*The Data Mesh concept should not be seen as a standalone technology, but rather as a set of principles and practices that guide the use, management, and interpretation of data.*

**SCHOTT is a top manufacturer of high-tech materials specializing in special glass. Established as a glass laboratory in Jena back in 1884, the company has grown into a global conglomerate with production and sales units in 33 countries. With over 17,200 employees hailing from more than 109 different nations, the company places great emphasis on diversity, collaboration, and innovation.**

With the Data Mesh concept, the company is following a new concept from the world of data: At SCHOTT, data is treated as "real products" and ownership is shifted to those departments and people who know the data best. This means that data products are developed and provided in collaboration with individual business units.

Access is then provided through a central data product marketplace, where business users can manage and access both their own data products and those provided by other departments. Instead of starting from scratch every time data is needed, teams in the enterprise can see what is already available and then request access to the data products they need.

In essence, the key to unlocking the true value of data and overcoming the problems associated with data silos lies in the principle of domain ownership, combined with a solution discovering and connecting data assets. This requires the business units in a company to get basic data training. In a detailed onboarding with One Data, data owners are shown how to organize their domain-specific data themselves and make it available to others.



# Using Networked Data to Change Company Culture

**"Data is available for everyone and should be used throughout the company to create value. Thanks to One Data, we were able to achieve the change internally to treat Data as a Product. Data products are thus made available and can be utilized across departments to drive decisions", says Kemmer.**

Even companies with a high level of digitization can face challenges implementing the Data Mesh concept. Enormous amounts of data from different and disjointed sources must be located and cleansed, duplicates eliminated, and then linked together. The concept can only be realized when all relevant company data is harmonized. Data Mesh then enables the creation of a domain data layer, to which each domain contributes its processed data. With the help of **One Data's** AI-powered Data Product Builder, data is prepared and made linkable across domains, allowing the creation of value-added data products.

**One Data** enables SCHOTT to achieve a high degree of automation in data preparation, which reduces the need for manual data integration and ensures data interoperability by up to 80%. Additionally, the platform's automated search function and exploration of data structures and content ensures compatibility between data products.

After proper aggregation and preparation, **One Data's** AI-powered Data Product Builder visualizes the data landscape via an interactive map that serves as a cockpit for SCHOTT's business users. It shows only relevant, usable data, which will be released as data products by the corresponding business unit in the future. This process ensures that only valuable, high-quality data is shared across the organization, enabling better decision-making, and driving innovation.

SCHOTT wants to create two different cockpits with **One Data**: A Governance View for the administration of the mesh concept and a data product marketplace for all end users. "When the business units themselves are responsible for their data, they also value it. This leads to a culture change in the company, and employees take responsibility. Data is understood as value-adding products that are not the sole concern of data experts," explains Kemmer.

## Perfectly Balanced Glass Roll Settings Automated and with AI

One practical example that illustrates the advantages of the Data Mesh concept is the use of AI and machine learning to automatically calculate the optimal settings for glass rolling machines based on historical data. This approach not only saves a significant amount of time but also establishes a self-improving process that continuously learns from existing data.

Thanks to One Data's Data Mesh approach, the production department has ownership of the processed data and can generate data products on its own, such as the historical data on glass roll settings, and make it available to the entire company as needed. This allows SCHOTT to save effort and prevent errors.

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*"Thanks to One Data, we can easily connect disparate sources of data and visualize our entire data landscape in an interactive map. We are creating quality-assured data products in no time, providing them to the individual departments and making them easily accessible and thus usable for everyone. The results are usable data, custom-fit use cases from the lead, clear ownership over data assets, and ultimately an acceleration of all data-driven projects."*

Martin Kemmer  
Head of Smart Factory & OT4.0,  
SCHOTT AG

# Achieve Innovative Goals Quickly Thanks to Data Mesh: Automate and Harmonize a Global KPI Reporting System

**The adoption of the Data Mesh concept and the distribution of data products opens up a new and more effective approach to extracting value from data.**

With this, individual departments at SCHOTT can now confidently execute their own data-driven use cases using data products. This brings tremendous benefits to business users as they no longer need to wait for access to linked, processed, and quality-assured data, nor are they dependent on a centralized administration unit.

A noteworthy example of the Data Mesh concept in action is the KPI Dashboard, which aims to standardize and automate the global reporting system. As a multinational company, SCHOTT had to deal with the complexity of integrating diverse systems and consolidating them into a centralized dashboard.

In the past, data had to be manually collected from spreadsheets and emails, which was not only time-consuming but also prone to errors. However, with One Data's Data Product Builder leveraging Data Mesh principles, the reporting process is now automated and streamlined, saving valuable time and resources.

By implementing Data Mesh principles through One Data's Data Product Builder, SCHOTT was able to create value from data products originating from different domains such as "Production" and "Quality" for the pharmaceutical and technical sectors at five international production sites. Linking data from "Production" and "Quality" revealed new insights.

The dashboard collects data on daily production quantities and losses, providing the Global Operations Leader with reliable information on how many product units were produced at which location.

Quality analyses help draw conclusions about the causes of production losses, making it a useful reporting tool for optimizing the production process, which can be expanded to include other locations, products, or additional information.

# SCHOTT Paves the Way

## for Innovation Through Data Products

The optimization of the roll setting and the automated KPI dashboard are just two examples of how SCHOTT creates and uses data products to drive innovation: "Initiatives are no longer decided from the top down but are led directly by the experts. They themselves know best where specific improvements can be made," says Martin Kemmer.

The exact number of data projects that the departments at SCHOTT will initiate and the nature of the ideas and solutions they will come up with cannot be predicted at this point. SCHOTT is also committed to becoming climate neutral by 2030 and intends to use the Data Mesh concept and AI to achieve this goal. One possible approach is to develop new data products that leverage automated process analysis to minimize energy consumption in production.

Once the Data Mesh concept is fully implemented, SCHOTT's corporate culture and way of working will undoubtedly undergo a significant transformation. The availability of usable data products tailored to specific use cases, with clear ownership over the data, will accelerate all data-driven projects. It is even possible that data-related discussions may become a regular part of everyday conversations at SCHOTT, perhaps even over coffee breaks.



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**If you are interested in our know-how and our Data Product Builder, please contact us. We would be happy to discuss your company's unique needs and potential solutions.**

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