

Case Study

Dotmatics as a Disruptive Technology at Debiopharm



As life science and discovery companies grow, it can be hard for data management processes to keep pace with the speed at which science and data volumes are both evolving. Previously useful processes – for instance personal Excel files or local file-shares – can quickly become outdated and unfit for purpose as the number of people producing and requiring access to data increases.

The Challenge

Data Silos Create Innovation Headaches

[Debiopharm International SA](#) is a mid-sized drug development company focused on oncology and infectious diseases which recognized that it needed to put in place data management processes to support its continuously expanding growth and innovation. Initially, the company had no central repository for information and data had become spread across the organization in different silos; this is a common problem in life science organizations. As a result, Debiopharm researchers were finding it increasingly difficult to collaborate effectively with more colleagues, which had a knock-on impact on productivity. This lack of overall structure meant that:

- Research data was not accessible to everyone who needed it
- Costs for managing inventory and reagent stock were increased
- Experiments were difficult to search
- Researchers had challenges with communicating and collaborating with CRO partners

All of these factors reduced the efficiency of the data management process and hindered innovation.

Like many pharma organizations, Debiopharm has scientists operating in multiple locations. However, the lack of a single online repository for data meant that researchers often had to be physically in the same room as each other to collaborate effectively; an increasingly concerning problem at a time when innovation is mostly happening through multi-disciplinary research. At the start of 2018, when new Global CIO René Van Den Bersselaar joined the company, Debiopharm decided to overhaul its data management processes and champion a new way of working, by engaging [Dotmatics](#).



René Van Den Bersselaar
Global Head IT and CIO,
Debiopharm International SA

“Important research data was being stored in all sorts of places, including notebooks, PowerPoint presentations, and Word files on personal laptops, so **only a few people could access it**. There was no cohesion between the API (Active Pharmaceutical Ingredient) database, the project database, or the reactions database. On top of that, data was coming in from a host of external CROs in a variety of different formats so we were having to do a lot of time-consuming manual data entry and data transfer work ourselves. We realized that what was needed was a single way to find and access data across the organization so we could really understand what was happening.”

The Approach

Becoming a More Data-driven Company

In early 2018, Debiopharm reviewed its requirements and decided there was a need for a single, central platform for all research data, both internally and with research partners. After discussing with stakeholders and gathering all their requirements, Debiopharm opted to partner with Dotmatics, due to its unparalleled informatics expertise. The company invested in a range of Dotmatics products including [Browser](#) (Enterprise Search), [Register, Studies Notebook](#) (ELN), [Cascade, Inventory](#) and [Vortex](#) (Visualization and Scientific Data Analytics).

Debiopharm concluded that the Dotmatics product suite provided the necessary components to handle all non-clinical experimental data on a single computer screen as well as offering advanced search and analytics functions. On top of this, Dotmatics was able to provide full inventory details within the interface which helped to address stock management challenges.

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The Solution

Creating a Single, Central Data Platform

Once Debiopharm decided to adopt the Dotmatics Platform, the company invested effort in defining best practices for its research workflows. Indeed, Debiopharm found [Vivenics](#) to be an invaluable implementation partner due to the raw data curation and harmonization it delivered. By Q1 2019, all relevant data had been cleaned, harmonised and uploaded to the Dotmatics Platform.

Capabilities include:

- ELN for chemistry and biology experiment and data capture
- Vortex templates to simplify results analysis per compound
- Chemical registration including customized naming convention and salt-stripped structures
- Stock management of reagents and compounds including calculation of remaining weights for accurate stock management; streamlining reagent delivery
- Storage of assay analysis results from both internal and external sources
- Upload of all relevant project PowerPoint, Excel and Word documents
- Analysis requests, internal and for CRO, including required amount of stock and sample/batch shipment management



“One of the best things about this project was the way **Dotmatics adapted to meet our specific needs**. For example, we have a lot of analyses and syntheses done by our CRO partners. Sometimes when compounds are synthesized at one CRO, that CRO sends batches directly to other CROs for analysis. **Dotmatics took the time to understand the workflow and streamlined the process** so that the details of this shipment is also recorded in the system. It’s far more efficient and means everyone can track where any given compound is at any time.”

- Jean Richardson
IT scientist at Debiopharm



The Outcome

Dotmatics Integration Significantly Increases Speed of Innovation

On completion of the project, Dotmatics had:

- Produced a significant increase in data quality and integrity
- Increased users’ ability to collaborate across both research sites
- Increased researchers’ efficiency by generating more time for analysis rather than data gathering

“The Chemists love the ease of use, time-saving in cloning experiments and ability to search through reactions for similar work.”



René Van Den Bersselaar

Global Head IT and CIO, Debiopharm International SA

*“Dotmatics has truly disrupted the way the company works for the better. As soon as people saw how useful it can be to share everything in one place and how much more efficient our processes are as a result, everyone got on board with Dotmatics. **All our data is now available and accessible at all times**; we’re no longer dependent on individuals remembering where they’ve saved some piece of important information. The impact has been felt throughout the company with the board recognizing the achievement, giving us the Shapers Award for the impact it’s had on R&D productivity. But more than that, **Dotmatics has helped change the mindset in the company; we’re now making better, more data-driven decisions, helping us be more competitive and allowing us to get new therapies to patients faster.**”*



Jean Richardson

IT Scientist, Debiopharm International SA

*“Dotmatics has been a very successful implementation. **We’ve increased the speed at which we’re working and making factual, data-driven decisions about project progression** to boot. Now that our data is ordered, validated and shareable in a controlled way across the organisation, we’re no longer dependent on Visual Basic and Excel for data management. **Bringing in Dotmatics has significantly improved our data quality and integrity** but this is just the start of an on-going process. We want to continue making improvements and bring more users on-board across the business.”*

René Van Den Bersselaar

*“Perhaps an intangible benefit has been an increased willingness to be open with results and appreciate other’s hard work. **The move from ‘my data’, ‘my analysis’, ‘my server’ to democratic company data, to which each contributes**, has been dramatic. Evidence indeed of the positive disruptive nature of Dotmatics technology.”*

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