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Unboss, Enable, Accelerate: How to Scale Business Self-Service

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In the wake of the pandemic, the world marvels at the power of medical research. However, pharmaceutical companies have long been dedicated to using innovation to improve human lives. The advances in fighting COVID-19 are just another step in a long line of industry achievements, but there are many stubborn maladies just waiting for the right breakthrough.

Insights derived from the careful analysis of data have long proven to be the best way to drive the right action. Guiding a company based on gut feelings may be more exciting at times, but it would also prove wildly unreliable. Improving the health of humanity requires that we take bold risks that are backed by numbers. When it comes to the best approach to driving humanity forward, Novartis is committed to becoming such a data-driven company.

Our Framework for Data Maturity

The desire to be data-driven is a great aspiration, but translating this into practice is quite a challenge. Every day, businesses are pushing hard toward a data-driven strategy. If a central IT office is still responsible for all application delivery, it is more likely to create a bottleneck than provide scalable intelligence. What's more, the frustrations created by the response delays can effectively turn people against the idea. Or it creates parallel approaches, most of which result in a poor user experience, issues with platform stability and scalability, along with a high total cost of ownership.

Nearly every organization encounters this problem at some point within their journey toward business intelligence (BI) maturity. The questions then become: How do we transform into an organization where every functional office can maximize data insights, without totally releasing control of the platforms? How can we continue to ensure the quality and integrity of the insights applications and platforms at scale if they are delivered by those who are not experts?

At Novartis, our solution to this challenge rests upon three pillars: Unboss, Enable, and Accelerate. **Unboss** is about empowering our staff to develop their own capabilities, applications, and innovations. We believe this is the best way to drive data development forward. Rather than have a single office deliver insights to all Novartis functions, we allow each of the business units to explore the data and develop their own insights.

The best way to drive data development forward is to enable everyone to develop their own capabilities, applications, and innovations.

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This step also includes creating a series of risk-based guardrails. By doing so we can offer our staff more freedom without having to be concerned about compromising compliance, platform integrity, or the overall user experience. These protections also provide users with the confidence to explore and experiment without fear in a safe environment.

The **Enable** pillar recognizes that professionals are continually developing their skills. Providing great analysis platforms without a training complement would set up staff for failure. Accordingly, we include a focus on providing users with the business skills and tools to succeed. This may come in the form of online training, written materials, or sharing best practices.

The final pillar of our approach is **Accelerate**. Under this banner, we focus on building and sharing reusable components that can help new users succeed. This also includes a number of automation tools to quicken the learning process. Wherever there are common manual steps that can be avoided, automation allows the process to go faster using fewer resources. Faster, easier tools attract more participants into the system and it makes doing the right thing the easiest thing to do.

Increasing Users and Complexity

Novartis is one of the largest pharmaceutical companies in the world. We were created by a merger of Ciba-Geigy and Sandoz companies in 1996. As we celebrate our 25th anniversary, we have worldwide revenues of US\$48.66 billion and more than 110,000 employees.

Our product line is vast and includes over-the-counter drugs, diagnostics, and animal health substances. However, most people will connect with our selection of prescription medications to help them cope with long-term health issues. We offer some of the most prescribed medicines available for conditions such as hypertension, Parkinson's disease, diabetes, and asthma—including medications that are required for survival. Considering this background, it is always critical that we emphasize making smarter decisions at every level of the organization.

While our scientists and executives have always made decisions based on the best available data, this was not always the case for the entire company. Our journey toward becoming a truly data-driven organization began in earnest in 2019. Near the beginning of our journey with the analytics platform Qlik, we had about 2,000 users. However, as word spread, the number of interested staff grew exponentially. Roughly a year later in 2020, we had nearly 20,000 users on the platform. As of the first quarter of 2021, more than 35,000 people were engaged.

However, it was not just the number of users that grew. We also increased the number of platforms types. Today, there are 12 different sites serving four different geographic regions. Our resources are available physically through on-premise technology and cloud-based options.

Centralized analytics can help with solution quality, but creates bottlenecks for the organization.

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Because of needs related to highly-classified data, or data used in tightly controlled (GxP) processes, e.g. personally identifiable data and drug protection processes, we also have separate systems to store and consume highly-classified data that is only accessible to restricted users.

While application delivery from a central office provides greater control, it also restricts the ability of the organization to explore and grow. Having a central capability creates natural bottlenecks which often clash with the business desire for speed and agility. Using our Unboss, Enable, Accelerate pillars as principles, we were committed to evolving our approach to analytics.

Combining Guided and Self-Service Models

Through the early stages of the process, we settled on two delivery methods. Our guided delivery (or IT-managed process) continues the centralised model. Under this standard, IT staff designs, delivers, and supports the applications and treats the organization as clients. This process is most appropriate for high-risk, complex analytics projects.

The self-service model offers business units near-complete autonomy. We provide the basic platform, but they can deliver their dashboards within Qlik. This process is great for those in positions that require fast delivery of timely and accurate data. It also allows the business units the ability to personally massage the data and approach solutions with a great degree of agility.

Both sides can have potential drawbacks. Those who use the IT-managed process have greater consistency—often at the cost of speed and flexibility, as IT have significantly more quality and compliance controls in place. The self-service option offers faster delivery cycles at the expense of conformity across business units, and often quality, too. By offering both options, we can allow each user to select the options that best fit their needs.

By providing both guided and self-service data delivery models, your end users can decide which framework is best for them.

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As part of the move to allowing greater self-service, the first new approach we had to take was the risk-based governance model. We realized that Unbossing meant no longer applying a set of standard controls that may not apply to every use case in the same manner. Instead, we focused on identifying the potential risks of letting users control their data experience. We then created a series of guardrails designed to minimize these potential problems.

For example, we need the Qlik platform itself to remain stable, so there are certain controls in place to prevent people from hindering performance. As a pharmaceutical company, we are heavily regulated. Therefore, there are certain restrictions in place to make sure that we always comply with the relevant laws, regulations, and quality controls. Because we want users to adopt Qlik, certain structures are put in place to ensure high usability.

Another new approach we made was to rely on automation. One of the problems of a successful, decentralized BI operation is the sheer number of potential users. With thousands of people creating applications, the demand for onboarding these Qlik dashboards for live usage becomes cumbersome. With manual onboarding, the lead time took up to 168 hours to approve

and onboard a new user environment (stream). Multiplying this by 20,000 potential users and this process becomes unmanageable.

Our solution was an automation tool that is capable of creating project streams, custom properties, data folders, edit rules, and security guidelines. In addition, the tool can automatically designate roles and user types. Using this mechanism, users can now complete the process almost completely autonomously, with minimal IT interventions. Our deployment time went from 168 hours to 30 minutes, with the tool handling 80% of the onboarding steps. The automation process also helps us eliminate human error and offers some measure of risk mitigation.

The third new approach we had to consider is related to quality assurance. Our new approach uses automatic quality assurance to provide the developer with much faster feedback. The massive success factor of the early self service offering was that business could build and deploy without IT intervention. However, as the uptake grew exponentially, so did the issues with poor design, resulting in platform impact and poor user experience. To maintain the agile benefits of the self service platform we had to come up with an efficient way to improve quality without blocking delivery.

First, we identified the key risk areas of end user experience and platform impact, and came up with a way to objectively measure and monitor them—through end user performance and platform errors. Then, we defined a measurable set of best practices affecting these risk areas. Finally, we created automated tools to measure a quality score based on these best practices and a range of user-centric dashboards, bringing all these key insights to the key personas: developers, business owners, and platform architects.

Developers and application owners can now use the ongoing insights to create better applications, and get things right the first time.

A Shift in Empowerment

Unbossing, enabling, and accelerating all allow us to provide staff with the information they require at the speed of business. It permits us to change the conversation from one about delays, platform issues, and bottlenecks to value drivers, risks, and user experience.

Our new approaches and pillars ultimately empower businesses. Through this new process, we are able to continue to grow our data operation to almost any scale.

Keywords: [data insights](#) , [data maturity](#) , [Data Transformation](#) , [Self-Service](#) , [Data-driven](#)

About Qlik

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. Qlik provides an end-to-end, real-time data integration and analytics cloud platform to close the gaps between data, insights and action. By transforming data into active intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik does business in more than 100 countries and serves over 50,000 customers around the world. [Qlik.com](https://www.qlik.com)