Solvay and AppSheet: The Perfect Mix
Overview

Solvay is an advanced materials and specialty chemicals company, committed to developing chemistry that addresses key societal challenges. Headquartered in Brussels with around 26,800 employees in 61 countries, Solvay successfully introduced mobility into the shop floor thanks to AppSheet's no-code platform, adding a new component to its digital way of working.

Innovation is deeply baked into Solvay's DNA

The company's original founder was none other than Ernest Solvay, inventor of the Solvay process—a groundbreaking method that makes it possible to produce large volumes of soda ash, now a widely used chemical compound.

As the story goes, Ernest and his brother Alfred opened a factory in Belgium in 1863 and Solvay quickly grew into a global chemical enterprise.

Now, 156 years later, Solvay has become a leading producer of advanced materials and specialty chemicals. The company focuses on addressing key societal challenges, like sustainability through research and innovation, but also focuses on accelerating the digital transformation process.

The adoption of AppSheet added a new component to Solvay's digital way of working, especially in plant-specific processes that were significantly paper-driven.
The No-Code Approach to Digital Transformation

The desire to empower people on the shop floor and include them in the global digital transformation process, led Francis Boulu, Industrial Data Analyst, in close collaboration with Solvay’s digital office, to AppSheet, a no-code development platform that helps non-software engineers build custom apps quickly. Francis became an immediate promoter of AppSheet.

Over the last few years, he’s worked closely with many Solvay teams to drive broad digital transformation across all of the company’s industrial plants. The teams have been working to build a digital solution, replacing paper-based processes with app-driven automation.

The initial use case for AppSheet applications was inspection rounds. Rather than do it on a paper form, thanks to AppSheet, the operator can note the status of equipment on his tablet and can access further information about the equipment like data sheets and pictures. As soon as the inspection is completed, the control room is automatically notified and in case of anomalies, actions can be taken immediately. Some programs have been built internally to link the result to Solvay’s ERP and MES systems so that this type of data can be historized.

Over time, AppSheet use cases have grown. Solvay now uses AppSheet to create a variety of internal business apps, in total today there are approximately 1,000 deployed Apps (apps that have left the development phase).

The company has successfully built a workforce of empowered “citizen developers”—or non-technical employees who can create robust apps without formal software development training. Today, Solvay has almost 400 different app creators and 4,000 end users spread out across the world.

Using a no-code platform to build apps is easier than low-code or traditional application development platforms. In fact, some plants can build and roll out apps in a matter of hours or days.

Solvay’s architecture and security team evaluated the AppSheet platform and validated its usage for many use cases. Only a no-code platform that offered advanced security capabilities could pass this validation step.

Ensuring Governance and Compliance with AppSheet

Solvay’s decision to deploy AppSheet was rooted in two complementary requirements—governance and digitalization—to provide a mobile solution for its workforce. These initiatives had to be coordinated across several teams, countries, and time zones.

Francis Boulu and the industrial team initially started using AppSheet to collect information from production operators to streamline checklists and inspections. Using AppSheet in conjunction with Google Sheets, they were able to rapidly demonstrate and roll out applications and work them into production.

The team was impressed by AppSheet’s ability to improve agility and productivity across a range of local industrial processes. Word quickly began to spread about the platform, and soon the company found other use cases in different departments like Human Resources and Health, Safety and Environment.

The company needed to evaluate the platform’s robustness and ensure that any apps that were created would be secure, private, and capable of being governed in a centralized manner.
Here were some of their specific concerns:

- The team needed to guarantee that employees would use the platform in an appropriate and centrally supported manner.
- Some policies and guidelines were required to determine who could configure and deploy apps.
- A Solvay App Catalog had to be built to provide an internal library of the apps. Exported data must be available to management so that they could understand app usage and operating costs across various departments.
- There needed to be a plan for decommissioning apps and removing users who no longer required access to sensitive information.

Reiner Hellstern, IS Systems Integration Leader, who managed this effort, needed to balance the business benefits of agility and citizen development with the responsibilities of ensuring compliance with corporate policies and government regulations. The major question was how an efficient governance process could work with a self-service rapid mobile app development platform without ending up in an un-managed IT landscape with risks in terms of costs, compliance and security.

In the beginning the team was skeptical of the no-code process, regarding:

- The reliability of offline capabilities.
- Power versus ease of use as the platform had to be powerful but simple enough for citizen developers to use.
- The general stability and reliability of applications running on mobile devices.
- What standalone apps and limited integration would mean to limited use cases.
- Positioning the platform within the IT landscape with no redundancy to other tooling.

But AppSheet made the decision-making process simple due to these features:

- Self-service development.
- Pre-deployment use and testing environment.
- Easy deployment environment for 90% of private apps.
- Easy versioning and updating process.
- Built-in offline capabilities.
- Powerful out-of-the-box functionality.
- Low costs for new apps.
- Multiple/rich device reach.
All in all, Solvay is now more operationally efficient after working with AppSheet. The workforce is better supported with a technology which allows them to build and support their own applications. AppSheet’s no-code platform proved to be well suited for Solvay.

AppSheet’s platform is built around four key pillars: authentication, app access control, data access control, and auditing. Plus, the no-code development platform provides comprehensive analytics to track ongoing usage.

Solvay was also able to further secure their custom apps by implementing domain-based authentication and domain groups to centrally control access to its apps. Currently, the team is working to move the storage location of all apps into a shared cloud. That way, it will be easy to seamlessly transfer apps from one employee to another without any disruptions.

**Driving Adoption within the Enterprise**

Solvay’s workforce had to learn about the benefits of using AppSheet and how the platform could help improve daily business processes.

Some of the challenges were obvious, since it’s always tricky to get employees to actually use new technology. Other challenges, however, were not so obvious.

For example, most AppSheet documentation and training materials are in English. But many Solvay employees speak French, Spanish, Portuguese, and many other languages. Solvay found that it was very effective to hold internal webinars and training sessions to convey the potential of the platform and also to help internal app creators get past their initial obstacles. Training materials are available in six languages, approximately fifty “how to” articles for best practices have been published internally, four webinars are offered in English and French and many point-to-point web sessions have been provided.

The team also set up a suite of internal sample apps that get automatically shared with all Solvay employees using AppSheet. This suite both demonstrates how apps are built and provides starting points that can be copied and modified as needed.

AppSheet is also known for providing rapid-response troubleshooting whenever it is needed. If an app creator runs into an issue at Solvay, AppSheet is just a phone call away.

AppSheet maintains a comprehensive developer community where citizen programmers regularly go to solve simple and complex challenges. This community is often one of the first places no-code creators turn to for help. Oftentimes, they’re able to solve problems on their own without having to pick up the phone.
Results

Solvay's decision to use AppSheet has already been a success. The no-code development platform is now an integral part of the company's software suite and AppSheet is fitting very well in Solvay's Google ecosystem.

The digital mobility team continues to find new usage scenarios for AppSheet and worked recently on creating a formal process for how AppSheet's internal services are handled.

To learn more about AppSheet's approach to enterprise app development and management, click here.