



Improving collaboration and connectivity through a single source of truth on construction projects in Belgium.

Polytek provide engineering services to a wide variety of customers. Their customers have one common goal: to work efficiently, with a focus on quality and budget. Through open communication, transparency and better collaboration, Polytek find the best solutions to help their customers achieve their desired outcomes. From 3D scanning to engineering to construction management, Polytek's team of experts manage every aspect of a project from start to finish, down to the finest detail.

The Problem

Polytek are an engineering services company in Belgium who support a wide range of customers. Predominately focusing on piping and structural design, as well as supporting civils and mechanical engineering on projects, they offer support with 3D laser scanning and construction management too.

Polytek have been digitalising their ways of working for a number of years to support their customers in Belgium placing a particular focus on design for a more efficient and predictable construction phase. They have been using a number of Autodesk products to do this on the design and construction phases of their projects, which usually always start with a 3D scan of the entire environment.

At the core of Polytek's offering is their relentless focus on a meticulous process made up of three phases; basic engineering where the design is often worked and re-worked, detailed engineering where the design is worked out to the finest detail and then construction management with Polytek monitoring all on-site activity.

Werner Herbots, CEO for Polytek, began to discover the value of connected construction processes when Polytek started working with Autodesk Construction Cloud's BIM 360 platform in early 2020. Werner wanted to find a solution that would allow the team at Polytek to keep the build process in mind when working on the design phase of a project, and ensure that every project team member including external collaborators could access up-to-date and accurate information easily. As well as this, storing files safely in an electronic environment was crucial because Werner's team support a number of sensitive projects for pharmaceutical and food sector clients in Belgium.

The Solution

The team at Polytek began working with BIM 360 on a number of projects throughout 2020 in collaboration with their customers. Before implementing the solution, the team relied on using internal sites like SharePoint that they had to grant access to external parties on – with no real way of managing the permission levels of individual project team members. This meant that sensitive project documentation could be seen by everyone involved in the project, when often only one or two key members needed access to this information.

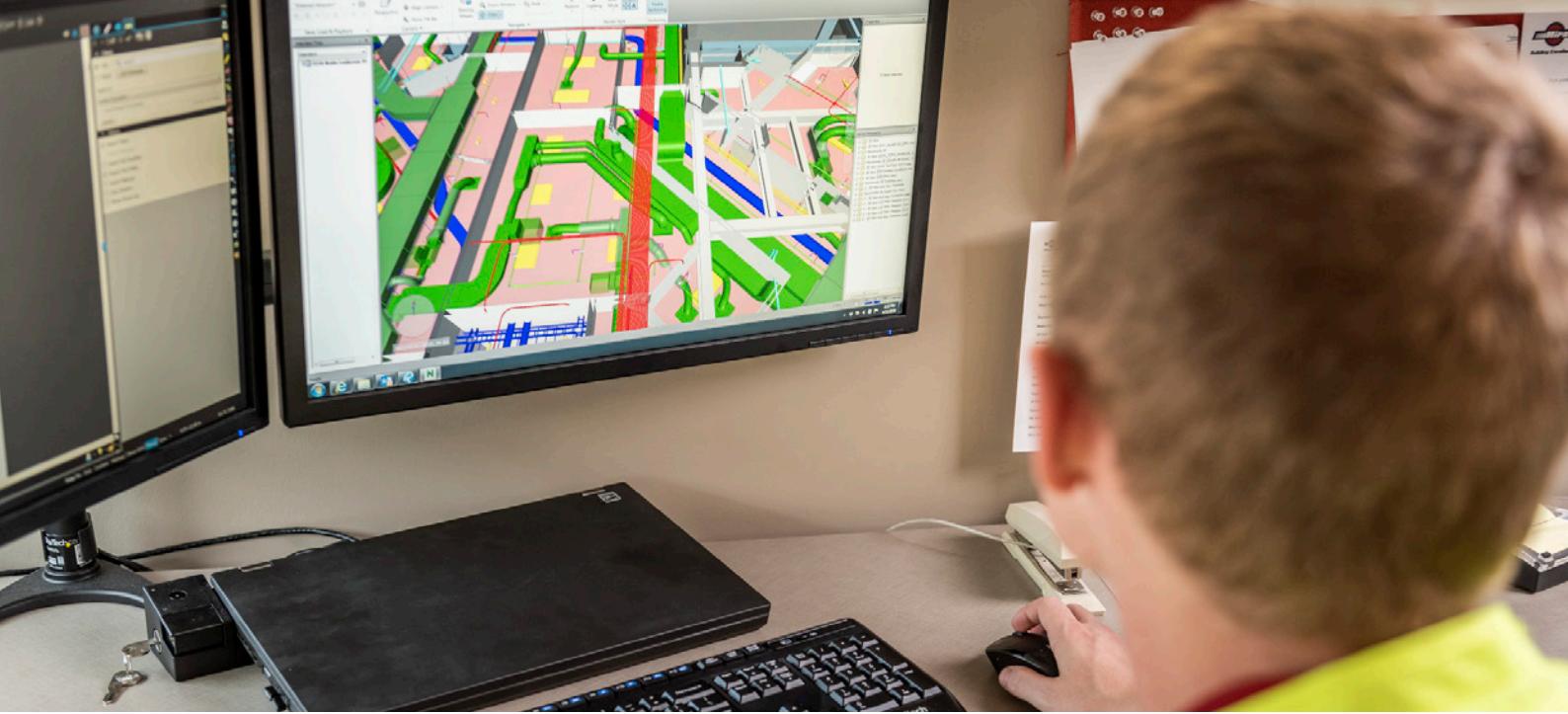
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The benefits for using BIM 360 in this way meant that everyone involved in a project – including our customers – could have access to one single source of truth. Access could be granted to certain files and documents individually and the risk of sensitive data being lost or being seen by colleagues without the correct approvals was instantly minimised.”

- Werner Herbots,
CEO for Polytek

Different projects took different approaches to how they managed their project data so there was no standardised way of saving project documentation safely. Using a cloud-based solution allowed the team to manage their project documentation in a more efficient way and helped to embed their new ways of working onto their projects.

As the team at Polytek became more familiar with using Autodesk Construction Cloud, they began exploring what other products would benefit them and their customers. “When we heard about Autodesk Build and the way it could connect data, workflows and teams we knew we needed to try it,” recalls Werner. “The benefits of using a common data environment were evident in the way our collaboration and communication improve drastically but being able to go one step further and use technology on site in real-time was something that we knew would be invaluable to our ways of working.”

Polytek trialled using Autodesk Build and have now moved to implementing it on all of their live projects. They have been able to replicate the workflows from BIM 360 with Autodesk Build so they are still working in one single environment to manage data whether the team are on a construction site, in theirs or a customer's office, or whether they are working remotely.



"Most of our team were able to quickly adapt to working this way. We have a mix of colleagues with various tenures and experiences working with different tools," says Werner. Polytek are focusing on how roll out using Autodesk Build iteratively – exploring the functionality further and further.

Results

"Collaboration has been instantly improved using Autodesk Build – whilst we collaborated well internally and externally before, we've been able to take this one step further by incorporating our workflows that we conduct on site," says Werner. Prior to using the Autodesk Construction Cloud, the team relied on laborious methods to share data with internal and external collaborators. Werner recalls, "To share large files like images, we'd send these over WeTransfer, download them to a device and upload them into our document storage areas. Now our team members and partners can take photos directly on site and save them to our project area in Autodesk Build."

For Polytek, utilising the technology in a way which allows seamless collaboration between the office and the construction site whilst also allowing customers and external collaborators access to real-time information on a project's status with the account-based model has been invaluable. "With our supply chain partners and external collaborators, we can share models easier and a layer of accountability as well as transparency has been added to all of our projects," reflects Werner.

The team also plan to explore how they can use the technology to carry out project closing activities such as mechanical walkthroughs. "Our experience over the last year with the global Covid-19 pandemic has shown that there is absolutely a huge place for technology in design and construction," states Werner. "What is important now is that the appetite to work more digitally isn't lost and that construction companies continue to encourage their employees to engage with these new ways of working too. Remote working happened at speed for us in Polytek and technology played a vital role in keeping our projects moving in the face of adversity."

The next stage in Polytek's journey with Autodesk Build is to explore the features and functionality further to enhance efficiencies that have already been gained as well as educating their customers more on the benefits to using technology in this way on all projects as a standard.

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The benefits for Polytek and our customers are clear to see when it comes to Autodesk Build, however using technology in this way needs to become the norm in our industry.”

- Werner Herbots,
CEO for Polytek