

COMPANY

VK ARCHITECTS & ENGINEERS

LOCATION

Belgium and Vietnam

SOFTWARE

Autodesk® BIM 360™ Design

“We have seen an incredible 83% rise in time savings, resulting in a huge improvement in productivity thanks to BIM 360 Design.”

— Ann Van den Borre,
BIM Manager
VK Architects & Engineers

With over 65 years' experience in the industry, global design and engineering firm, VK Architects & Engineers (VK) has built a reputation for pushing the boundaries of technological innovation and delivering successful projects for a wide range of clients. The firm, which was founded in 1952, has evolved from a small family-run business to a large international corporation with six offices across Belgium and Vietnam. In order to manage the scale of this growth and bring speed and efficiency to its projects, VK is continuously looking to invest in the latest technology-led solutions.

BIM collaboration

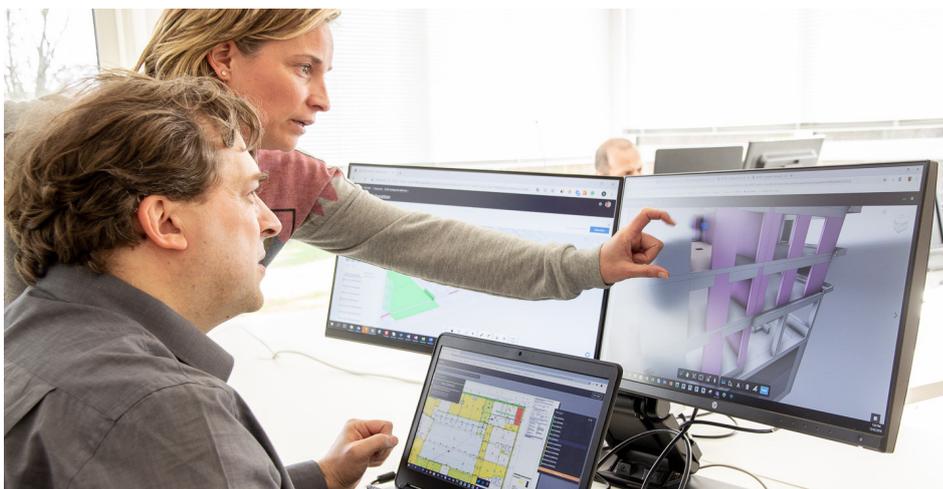
For the past few years, VK used a traditional file server to store its design files. Saving files to a local server meant that teams had to work from the specific office in which the server was located, often having to drive between the various offices in Belgium to work on different projects. “Having to navigate Belgium's heavy traffic meant some of our employees were travelling over three hours per day to come together with the rest of the project team and access the server,” commented Ann Van den Borre, BIM Manager. The second issue is that VK's Belgium team often shared models with its Vietnam office in real-time, so that the same model can be worked on simultaneously. This requires flexible access to the models in a central location.

Eliminating costly productivity losses

The alternative was to upload models, or to use Autodesk's Revit Server, via a virtual

VK Architects & Engineers drives collaboration with the cloud

‘Dead’ time reduced by 83% thanks to Autodesk BIM 360 Design



The VK team using BIM 360 Design (copyright VK group)

private network (VPN), which had to be used for large-scale and complex projects that involved multiple offices across Belgium and Vietnam. This meant that remote working for employees was limited as it was quicker to work from one local Revit server rather than waiting for files to download over the VPN. Van den Borre continued, “This had a knock-on effect on the team's productivity and slowed down our larger projects. We needed to find a solution that would support integrated project delivery.”

VK also wanted to find a new model management system that went beyond the Revit model format and could store CAD models as well as other file formats. When it came to file sharing, there was already a common data environment (CDE) document management system in place but this did not allow for multi-user access or editing to enable collaborative working.

Managing design changes in the cloud

To address this and increase communication between its designers, architects, engineers and partners, VK decided to deploy cloud-based Autodesk BIM 360 Design. Autodesk's BIM 360 is a unified cloud-based platform that promotes integrated, collaborative workflows by connecting project data from

the design phase through to construction. The software enables VK's cross-border teams to work more effectively and collaboratively by providing a one-stop shop for project data and information.

“Our adventure with BIM 360 Design began in 2017, borne out of a need to connect our teams in Vietnam and Belgium who were working on the same projects,” explains BIM Model Manager and CAD Support Engineer, Thierry Monteyne. “For instance, our partners in Vietnam were starting reinforcement modelling on the live model, yet this became more complicated when our architects in Belgium needed to change certain sections of the design, such as the columns and beams. We decided that we urgently needed a cloud-based solution that would allow for additional design modifications, even after the model had been submitted.”

Better communication leads to better results

“At VK, we communicate openly and strive for a transparent way of working with our clients” continued Van den Borre. “The BIM 360 platform not only means that project progress can be tracked by teams from all offices, but it also enables the client to be more involved in the design and construction process. Input on the model can now be given and responded to

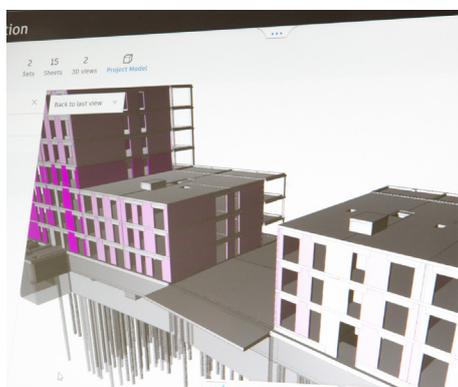
“Thanks to the productivity gains, we’ve worked out that we’ll be saving more than 4,000 euros a year for each of our employees that uses BIM 360 Design.”

— **Thierry Monteyne**,
BIM Model Manager and CAD
Support Engineer
VK Architects & Engineers

in real-time, which has helped us to close the feedback loop more quickly, improving project speed and efficiency. The increased dialogue that’s now possible has also improved our relationships with clients, partners and employees.”

Monteyne commented: “We’re also using new workflows in the Design Collaboration module: Shared and Consumed. This means that the data can be shared between teams and then approved for publishing to monitor for clash detection or to be viewed by other partners who do not use Design Collaboration, for example our contractors, clients or investors.”

The software has removed much of the complexity from the early stages of VK’s construction projects as teams can access all the data they require from a central cloud-based location. The principle of BIM 360 Design is having a ‘Work-In-Progress’ model, a shared environment that all project teams can access, plus a tiered approval system to transfer models between each phase. This has had an enormous impact on productivity, helping to prevent the stop-start nature of



The BIM 360 Design Collaboration Module (copyright VK group)

approval processes that sometimes occurs on bigger projects.

Delivering ROI through time and cost savings

“We have seen an incredible 83% increase in time savings, resulting in a huge improvement in productivity thanks to BIM 360 Design, reducing file sync times to just 30 seconds,” Van den Borre continued. “This compares to the average three minutes it was taking to synchronise when using models stored on our local servers. Colleagues can now share information with their teams and clients much faster, spend less time waiting for models to sync and make more accurate decisions based on the latest information available.”

Van den Borre said: “We’ve increased productivity by 5% based on time savings, which is a fantastic result for the business. Thanks to BIM 360 Design, the massive reduction in ‘dead’ time has also helped to boost staff satisfaction as employees spend less time idly waiting and more time focused on the project in hand.”

“Thanks to the productivity gains, we’ve worked out that we’ll be saving more than 4,000 euros a year for each of our employees that uses BIM 360 Design,” continued Monteyne. “In the long term, these savings will go a long way for us as a business. When you look at how many of our employees will be using the software and how many projects we’re working on at any one time, we could be saving hundreds of thousands of euros from this implementation alone within the next few years. Money that we will definitely look to re-invest in new technologies so that we can continue to follow technological evolution.”

Enabling flexible and remote working

VK teams can now work far more flexibly than ever before. “This is one of the most important benefits of BIM 360 Design for us,” explained Van den Borre. Disparate teams across Belgium and Vietnam can be brought together via the cloud, instead of having employees drive to a specific office location to work on one server or enduring slow download speeds over a VPN.

“The team is thrilled to be working in such a flexible way and have described it as like having their colleagues in Vietnam sitting at a desk just beside them! Our

employees and partners now have the tools to communicate virtually and work remotely, which has dramatically improved our staff satisfaction levels. Feedback from clients has been equally as positive, as they can easily access the design from their smartphone or tablet and watch the project evolve,” commented Monteyne.

Reinvesting back into the business

“Initially the collaboration solution was tested for our structural discipline, and we later rolled it out to MEP engineering. This year, we have started to implement BIM 360 Design into architectural models – our largest discipline,” explained Monteyne. VK plans to continue rolling out the platform to cover all its specialist disciplines. “We pride ourselves on our thorough understanding of market mechanisms and technological developments. To keep delivering projects to the highest standard and maintain our flexibility, accessibility and openness, we will continue investing in new tools and technologies,” added Monteyne.

Looking to the future, VK is planning to put the savings it has made as a result of deploying BIM 360 Design straight back into the business to further optimise processes and projects. “We’re looking at new tools such as AR, VR and Computational Design,” said Van den Borre. These advanced tools are shaking up the industry and changing how designers, architects and clients interpret design. AR and VR are already helping Autodesk customers better visualise and present BIM models on-site. The integration of these technologies will no doubt empower further collaboration and enable increased ROI for VK and its clients.

BIM 360 Design has acted as a springboard through which VK increased project efficiency and staff productivity, reducing costs and ultimately making room for more creativity. Automating time-consuming tasks like synchronisation and freeing up employees’ time has allowed teams to focus on developing game-changing designs. Thanks to BIM 360 Design, the scope for VK to create even more compelling and immersive client experiences is huge.

Get started with BIM 360 Design - contact us today ➔