



AUTODESK **CONSTRUCTION CLOUD™**



How BAM Deutschland AG Experienced 30% Time Savings with Data Standardisation

Contractors who successfully use cloud-based collaboration to connect the office to the field experience substantial returns in quality, safety, cost, and schedule. But it can be challenging to determine the ROI on the data standardisation and construction project management implementations necessary to achieve that ideal state.

BAM Deutschland AG (BAM) took the plunge and connected their design tools with their site management tools, and experienced a 30% savings on time while improving quality and collaboration.



Customer Snapshot

FIRM SIZE: >5000
FIRM TYPE: GENERAL CONTRACTOR
REVENUE: \$8.7 BILLION
FOCUS AREA: COMMERCIAL
HQ: DÜSSELDORF, GERMANY

PHASE:



DESIGN



PLAN



BUILD



OPERATE

PRODUCTS:



VALUE DRIVERS:



Quality

Digitising Operations to Achieve Standardised Data

The Royal BAM Group nv is one of the top ten construction businesses across Europe focused on close client collaboration, sustainability, and digital construction. The innovative firm began as a small carpentry workshop in 1869, and now delivers projects across the globe. Royal BAM Group's focus remains on the vital impact its work can have on people's lives. BAM Deutschland AG – one of the ten operating companies of BAM – is responsible for designing, building, and managing high quality and demanding construction projects in the DACH region. While BAM has been using BIM methodology during the design stage for years, they wanted to implement digital tools into their site management process to achieve certainty in cost, quality, and schedule.

BIM 360 within Autodesk Construction Cloud™ was the answer to standardise that process across BAM to improve upon their traditional techniques for gathering, analysing, and reporting site data to achieve data standardisation.

The team took a calculated first step in its construction management digitisation by setting standards and implementing best practices and procedures to maximise efficiency and quality onsite. The goal was to use cloud-based collaboration instead of highly fractured and siloed operations to connect the office to the field.



In evaluating technology, the team identified the need for an end-to-end business solution that's scalable and interoperable with other systems to comply with project standards as mandated by the German government at the closeout of each project. With BIM 360 already in place across the BAM operating companies in the UK and Ireland, the deployment was a no-brainer.

By digitising its project management workflows and construction process the team would drive greater:

- Collaboration: Access to real-time data drives more collaboration and transparency between project stakeholders, while reducing the risk of working off an outdated model.
- Quality Management: With mobile solutions on site, teams can properly manage, store, and communicate information between the office and the construction site during quality assurance / quality checks (QA/QC).
- Project Management: Eliminating traditional paper-based systems removes redundancies and streamlines workflows leading to increased efficiency and greater productivity between key decision-makers.

How to Drive Cloud-based Quality Management Adoption

In close collaboration with the project team, the digital construction department set up the project, determined the required capabilities, and aligned the processes based on the requests from the site team, the content of the quality management system, and experiences from the BAM operating companies in the UK and Ireland.

With the construction project management structure in place, the team turned to their partnership with Autodesk and Autodesk Global Consulting team to create a customised training to rollout BIM 360 and onboard the team.

"The training was a crucial factor to success," says Naveed Zargar, BIM Manager, BAM Deutschland AG. "We created a one-day internal training program with documentation that visually explained how to use the tool and standardised quality management process."

To maintain adoption across projects, BAM has a



BIM coordinator onsite to support the client, site manager, and subcontractors. By offering continual training to its subcontractors, BAM hopes to further standardise its quality management process for issue management tracking to create further efficiencies across future projects.

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-Naveed Zargar
BIM Manager,
BAM Deutschland AG



Standardised Data Leads to Increased Efficiencies Onsite

“BIM 360 offers constant and real-time information without any involvement of paperwork, and enables smooth communication with the client, designers, and subcontractors. This saves time and prevents the team from acting on incorrect or outdated information,” says Zargar.

Onsite workers now get clear instructions that are standard for every project and use mobile devices instead of heavy folders where QA/QC and reports are updated from the construction site and viewed on or offline anywhere, and stakeholders receive concise, relevant, and timely reports.

With BIM 360, the site team can link photos with locations from the field on a mobile device. Photos attached to snags, checklists, or site diaries are emailed directly to the assignee/subcontractor, enhancing the use of a transparent and collaborative system for working. This feature gives greater access and visibility of standardised data, which wasn't easily realised using traditional paper-based techniques and provides time savings of about 30% per week.

For BAM, not only is BIM 360 a robust construction management platform, but the interoperability of the platform improves functionality with other systems.

“The BIM 360 APIs are a key factor for bridging the gap between isolated systems and eliminating repetitive tasks,” says Dr. Amir Elmahdi, Head of Digital Construction, BAM Deutschland AG. “Connecting these systems will increase performance and thereby the acceptance of digitisation on our projects.”

Cloud-based Collaboration and Data Standardisation Signals a New Day and a New Way of Managing Projects

BAM's new way of working has become an integral part of its digital construction success. The increase in time savings is a paradigm shift from focusing on repetitive administrative tasks to focusing on quality.

Since 2019, BIM 360 has become a standardised tool for digital collaboration and site mobility tasks across all projects. Every new project replicates BAM's master project template in BIM 360 to ensure project success. To optimise for the future, the team continues to measure the efficiency of BIM 360 across key performance indicators and refine as necessary.

“BIM 360 is a differentiator,” says Elmahdi. “It puts us four to five years ahead of the competition. With the right attitude and the right partner, there's no limit to what we can accomplish.”