Bentley
Advancing Infrastructure

Project Summary

Organization
Sweco

Solution
Project Delivery

Location
United Kingdom

Project Objectives
- To implement a connected, digitalized approach across their global projects.
- To enforce consistent standards, shift to data-driven processes, and drive proactive management.

Project Playbook
ProjectWise®

Fast Facts

- With offices in over 14 countries and projects in over 70 countries, Sweco wanted to advance infrastructure by transitioning to digital workflows.
- Sweco needed to push the boundaries of how their global projects and teams were connected.
- Already familiar with Bentley applications, Sweco established an open, connected data environment that supported cooperation across countries and disciplines.

ROI

- Sweco deployed an asset-centric ISO 19650 data model within four weeks, which previously required in-house customization and six months.
- Sweco's ProjectWise data model manages 16 major projects, allowing 14 organizations and more than 300 members to work with information in real time.
- By embracing a live decision-making process to digitally approve design deliverables, Sweco has seen 10% efficiency savings on project programs.

Sweco Saved 10% in Project Efficiency across its Global Projects

Leveraging a Connected, Digitalized Approach with ProjectWise Consistently Drove Project Better Outcomes

A Challenge to Advance Project Delivery

Sweco is one of Europe's leading architecture and engineering consultancies. They have offices in over 14 countries, have 17,500 employees, and have worked on projects in over 70 countries. In their pursuit of shaping tomorrow's sustainable cities and societies, they believe that infrastructure will be an essential foundation for the coming years. To this end, they challenged themselves and the clients that they worked with to transition to more sustainable, digital methods of work, focusing on long-term improvements as they planned and designed communities and cities.

Pushing the Boundaries of Collaboration

To achieve these advancements in infrastructure, they knew that they needed to implement a connected, digitalized approach across their global projects. Accordingly, they made it their goal to implement a roadmap to enforce consistent standards and workflows, while shifting to data-driven management processes and proactive project management. However, Sweco knew that traditional methods of project information management, collaboration, and decision-making would not be sufficient to deliver the advanced project outcomes that they desired. These data management methods were often time consuming, labor intensive, and error prone. Project data under these methods was unstructured and tedious to manage because the data was housed in several locations—including servers, local hard drives, and ad hoc file-sharing—resulting in dispersed and duplicated information across several locations. As their globally distributed, multidiscipline teams worked with large volumes of data from multiple sources and in a variety of formats, they needed a solution that would encourage collaboration rather than reduce the effectiveness of their teams working together.

Sweco also knew that they had to push the boundaries of how their global projects and teams were connected to information and to one another. Not only did they need to work with always-updated project information across disciplines and worksites, but they also needed to standardize and effectively manage their information in a centralized, up-to-date data model. The centralized data model would help them gain efficiencies and mitigate risk by ensuring that their projects adhered to BIM standards and best-practice workflows. They could also give their project managers access to automated project insights to identify and circumvent potential bottlenecks and issues ahead of time.

Bringing Together Projects and Teams around the World

Sweco realized that a connected approach would provide immediate benefits. Multidiscipline teams could collaborate faster and easier, as well as leverage industry-proven BIM workflows in a live, connected data environment. They would be able to integrate multiple sources of data, connect global teams, and apply information to actionable project insights.

Already familiar with Bentley applications, Sweco established an open, connected data environment based on ProjectWise that supported cooperation across many countries and disciplines. ProjectWise enabled them to create digital twins, which served as a single source of information for any given project and enabled them to collect, manage, and disseminate all relevant project documents for multidiscipline teams in managed processes. With its thousands of employees throughout northern Europe and several annual projects around the world, this type of environment was essential for Sweco.

"Embracing Bentley's managed service with our ISO 19650 data model is allowing us to fast-track our aspiration to deliver digital twin solutions for our partners and clients," said Rupinder Wilkhu, head of digital delivery and BIM at Sweco.

Since deploying ProjectWise in October 2019, Sweco has used it as the single source of information for 16 major projects across 14 organizations globally. In particular, Sweco is delivering 10 projects within their data model, with an estimated cost of over GBP 750 million from 16 offices and with over 300 project members, allowing clients, designers, contractors, and stakeholders to work together in one large collaborative team.

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– Rupinder Wilkhu, Head of Digital Delivery & BIM, Sweco

Enhancing Collaboration for Better Project Outcomes

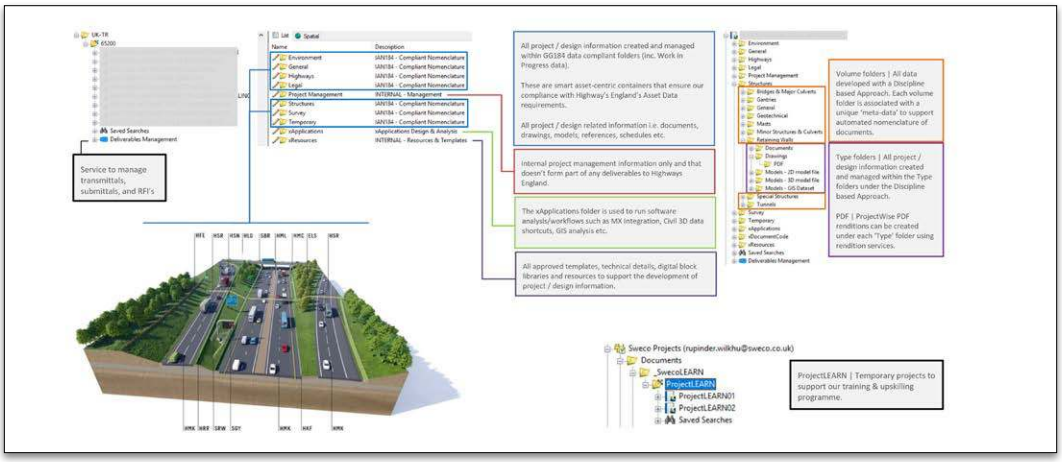
"Using Bentley's managed services, we successfully deployed an asset-centric ISO 19650 data model within four weeks from the data source being made available by Bentley, a process that has previously required in-house customization and taken up to six months," said Anna Nord, CAD manager at Sweco.

Once deployed, Sweco saw several immediate benefits. By embracing a live decision-making process to digitally approve design deliverables, Sweco has seen 10% efficiency savings on project programs. Improved information management has enabled them to leverage clash avoidance processes to gain up to 30% more efficiency in interdisciplinary review processes, as well as ensure all project information created and managed within folders aligned with the client's asset-data requirements, to gain further efficiencies and success meeting client expectations by ensuring a seamless digital handover at each completion stage.

Additionally, the ability to access near real-time, automated project insights has allowed them to predict early warning signs and mitigate potential issues to the project delivery. Without needing to manually extract and analyze performance data, Sweco project leaders were able to make more proactive decisions, which was critical in delivering projects faster and with less risk.

Through these changes, Sweco has seen significant gains in overall productivity, enabling their teams to deliver projects faster and meet deadlines easier. They have also seen significant reductions in risk, mitigating design errors, rework, and schedule risks across their projects. These benefits have translated to cost savings as well, in addition to improved quality of project delivery.

Sweco is currently supporting more than 3,500 internal users and 500 external users across 400 projects globally, embracing a cultural change that is allowing them to optimize project outcomes across their enterprise.



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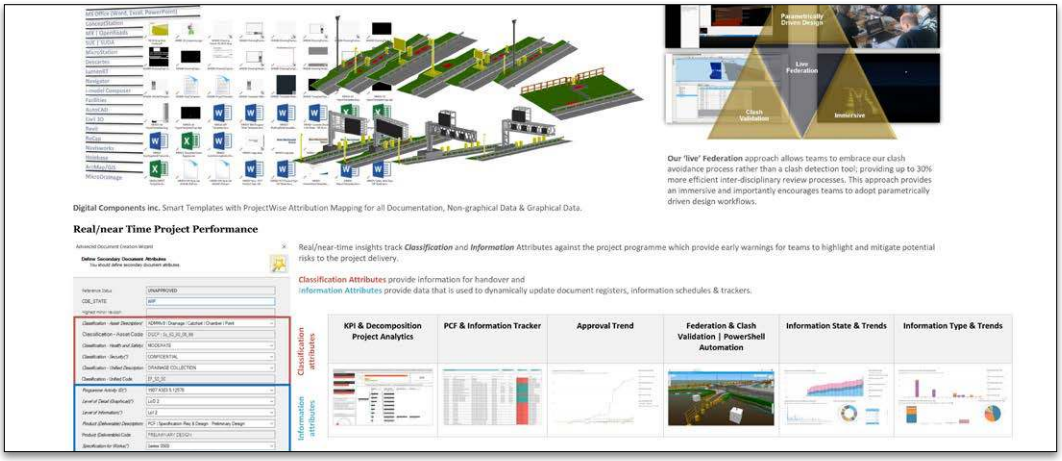

The connected data environment has digitally approved over 1,500 products, providing up to 10% efficiency savings on project programs.

Find out about Bentley at: www.bentley.com

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