

COMPANY

SWECO

LOCATION

Global

SOFTWARE

Autodesk AutoCAD

Autodesk Revit

Autodesk Construction Cloud

Autodesk Vault

Implementing BIM Standards and a Common Data Environment for a Global Engineering Consultant



SWECO is one of Europe's leading architecture and engineering consultancies, carrying out multidisciplinary projects in 70 countries annually across the world.

It has a substantial presence in the Netherlands, delivering major projects for the public and private sector. The technical leadership within the Netherlands division identified BIM as a catalyst for growth and standardisation as well as the opportunity to provide new services to a broader range of customers.

The team were already highly proficient at using Autodesk's BIM technology to deliver customer projects but identified a need to adopt industry standards such as ISO19650 and a Common Data Environment (CDE) to ensure that the project information it delivers to its customers meets the highest standards. SWECO engaged Cadline to conduct a top-down review of its readiness to gain ISO19650 certification as well as provide a robust CDE infrastructure.

Project Goals

The main goal was to introduce a framework for delivering projects using BIM in a structured and highly collaborative manner and would meet the information management requirements of a broad range of clients.

The framework should be compatible with the newly released global BIM standard, ISO 19650, such that it could be successfully audited and certified by a recognised auditing body.

A key part of the standard, and a priority for SWECO, was to establish a Common Data Environment to store, control, share and report on project data. The CDE should support the current design workflows whilst applying the controls around access permissions, modelling naming and project status that the standard requires.

Solutions

As well as providing guidance on best practice for delivering BIM projects, developed through supporting our customers in the UK, we delivered specific workstreams related to process documentation and establishing a Common Data Environment. Supported by John Jansson, the Head of Technology at SWECO, we supported an ambitious programme of change within the organisation which required us to deliver the project in a relatively short timeframe.

Along with our specialist partners we provided support to the team throughout the successful ISO 19650 Gap Analysis and Audit carried out by the BSI. This led to SWECO achieving BIM stage 2 certification in the Netherlands. We implemented the CDE based on Autodesk Vault and customised functionality, developed specifically for the project workflows at SWECO.

Business Outcomes

SWECO Netherlands became the first engineering consultancy in the Netherlands to achieve the ISO 19650 certification following a successful audit of its BIM processes by the BSI. As lead consultant on this project, we worked with SWECO to develop its people, processes and documentation to support a fully digital delivery capability.



The certificate has become the international standard for the management of information over the entire lifecycle of an asset through the adoption of digital construction workflows. The audit itself is a rigorous assessment of an organisation's ability to deliver BIM projects to the ISO 19650 framework. The framework supports well-structured processes for managing of project information including exchanging, recording, versioning and organising for all project stakeholders.

Conclusion



Since their ISO 19650 certification, SWECO has reported it is now able to successfully deploy ISO 19650-compliant data models within four weeks - a process that had previously taken up to six months. They have also published 10% efficiency savings on project programs and up to 30% in interdisciplinary review processes due to improved information management. SWECO's success has been recognised by the Advancements in Project Delivery Award in the Bentley Year in Infrastructure Awards.