



# TYPSA Group Becomes First Large Spanish Engineering Company to Receive ISO 19650 Certification for BIM Workflows

ProjectWise® Ensures All Projects Adhere to BIM Standards, Saving Time and Delivering High-quality Work to Clients

## LOOKING TO PROVIDE CLIENTS BETTER SERVICES

Supporting public, private, and institutional clients for over 50 years, TYPSA Group is an engineering consultant firm based in Spain. They help their clients deliver infrastructure projects from concept through to commissioning and operation, working in fields ranging from transport and building to water, renewable energy, and rural development.

As a consultant, they have worked on many high-profile projects around the world, two of which received recognition at Bentley's *Year in Infrastructure* Conference. One was the SEK 25.7 billion (USD 3.1 billion) Stockholm Metro extension project, scoped for approximately 20 kilometers of track and 10 new stations. Working with Sweco, TYPSA Group designed the section between Nacka and Söderort, which included work on 11 kilometers of tracks and tunnels, as well as seven new stations. The other project was High Speed 2 (HS2), the new over-350-kilometer-per-hour, high-speed rail network that will link eight of Britain's 10 largest cities and is one of the most complex railway projects in the United Kingdom. TYPSA, in a joint venture with Arup and STRABAG, assisted the Skanska-Costain-STRABAG joint venture with its civil works contract for the 25-kilometer southern section of the new high-speed line to be built between London and Birmingham.

To provide better services for their clients on these projects and others, TYPSA Group began looking to expand their use of BIM methodologies. While they had been leveraging BIM workflows since 2008, they were mostly applied to smaller projects. As an organization that works on projects spanning five continents, however, TYPSA Group realized that they needed to adhere to the highest technical, sustainability, and integrity standards across all their projects. The challenge was expanding and

systematizing their use of BIM methodologies to demonstrate their competency and push their limits to gain more contracts.

## SEEKING ISO 19650 CERTIFICATION ACROSS THE COMPANY

To prove their commitment to BIM workflows and going digital, TYPSA Group realized that they would need to receive an ISO 19650 certification. Many contracts required consultants to have this certification to establish their BIM maturity commitment to this level of design project delivery, and even those who did not require it also recognized its importance. Accordingly, TYPSA Group needed a way to reliably ensure that all their BIM workflows were being managed at the level that this certification required, as well as scale this management to accommodate for their array of complex, global projects.

TYPSA Group works with other file-share platforms but feels that these options do not fully meet their needs. They have difficulties implementing BIM standards and adhering to best practice workflows, which requires additional effort to ensure that they met these requirements. It not only costs TYPSA Group time and resources, but it also hinders them when scaling these efforts across their projects.

## STANDARDIZING BIM WITH PROJECTWISE

In 2015, TYPSA Group worked with Bentley to conduct a research project analyzing various collaboration solutions to discern which would be the best fit for their needs. The analysis revealed that ProjectWise not only could help them enable faster, higher-quality collaboration, but, most importantly, it also would allow them to automate and make comprehensive their adherence to BIM standards and key digital workflows—without needing to expend manual, time-consuming

## PROJECT SUMMARY

### ORGANIZATION

TYPSA Group

### SOLUTION

Project Delivery

### LOCATION

Madrid, Spain

### PROJECT OBJECTIVES

- ♦ To deliver higher-quality projects faster to their clients across five continents.
- ♦ To achieve ISO 19650 certification to prove their commitment to BIM workflows.

### PROJECT PLAYBOOK

ProjectWise

### FAST FACTS

- ♦ TYPSA Group is an engineering consultant company based in Spain, helping their global clients deliver complex infrastructure projects for over 50 years.
- ♦ To prove their commitment to BIM standards and best practice workflows, TYPSA Group sought to receive ISO 19650 certification.
- ♦ After analyzing their options, TYPSA Group chose ProjectWise to automate and standardize their projects on BIM.

### ROI

- ♦ In March 2021, TYPSA Group received ISO 19650 certification in Spain and then received certification in the United Kingdom office four months later.
- ♦ ProjectWise ensured that TYPSA Group adhered to the highest BIM standards and best practices, helping them secure their certification.
- ♦ TYPSA Group is the first large Spanish engineering firm to achieve this certification, acknowledging their compliance with new international BIM standards and recognizing their commitment to guarantee fully collaborative and consistent BIM processes.

I would always choose ProjectWise. When we deliver our work in the best way possible, our clients are happy, things are easier, and everything seems to fit.

-Felix Tejada Fernandez, Head of Innovation, Quality, and Training Area, BIM Department, TYPASA Group

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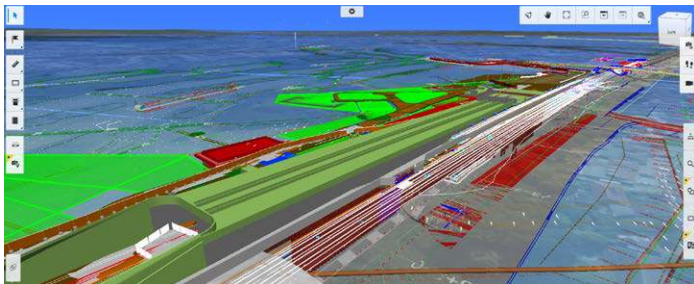
efforts. “We had found a great friend in ProjectWise,” said Felix Tejada Fernandez, head of innovation, quality, and training area in the BIM department of TYPASA Group. So, they used the application on two of their largest projects: the Stockholm Metro extension and HS2.

On the Stockholm Metro project, TYPASA Group, in a joint venture with Sweco, deployed 700 consultants in seven countries. They built templates in ProjectWise to ensure that their designers adhered to consistent workflows and standards, regardless of their locations or disciplines. ProjectWise provided a connected data environment for project-wide design collaboration among Sweco, TYPASA Group, its client FUT, and contractors in stages other than design, including construction and operations. This approach improved design quality, reduced information loss throughout the project lifecycle, and lowered design and production costs. The benefits were carried forward when the as-built federated BIM models were integrated with the client’s facility management system, creating a streamlined approvals process and further time savings.

On the HS2 project, TYPASA Group worked on a connected data environment using ProjectWise to optimize project delivery and meet the client’s timelines. They were able to streamline digital workflows among the numerous engineering disciplines in accordance with the client information requirements, aligned with PAS 1192 and ISO 19650. Additionally, the team was able to automate previously manual processes, centrally managing resources and libraries within ProjectWise and ensuring data consistency and digital efficiencies to improve productivity and quality of deliverables. Working in a connected data environment also facilitated early contractor involvement, enabling them to identify and resolve potentially costly errors earlier in the process to save an estimated GBP 1 million (USD 1.39 million).

## ACHIEVING BEST RESULTS FOR CLIENTS

In January 2021, TYPASA Group was assessed successfully and in March 2021 received their ISO 19650 certification in Spain. The first large engineering company to achieve this certification, it acknowledges their BIM maturity and



To prove their commitment to BIM workflows and best practices, TYPASA Group sought to receive ISO certification. Federated model of HS2 project.

compliance with new international BIM standards. It also recognizes TYPASA Group’s commitment to a guarantee of fully collaborative and consistent BIM information management processes. Later, in April 2021, they were successfully assessed again in their office in the United Kingdom.



ProjectWise helped TYPASA Group to demonstrate their adherence to the ISO 19650 requirements and secure their certification. Future pedestrian access to Sofia Station. Stockholm metro extension project. Source: <https://nyatunnelbanan.se/en/new-metro>.

TYPASA Group’s use of ProjectWise helped them achieve this certification. It made it easier for their team to conform to ISO 19650 standards by automating and standardizing how they implemented BIM methodologies. In the projects where it was applied, ProjectWise ensured that all TYPASA Group’s project information was managed, stored, and delivered digitally, effectively keeping their globally distributed teams connected and compliant. “What matters is how we build better, faster together,” said Tejada Fernandez.

ProjectWise also helped TYPASA Group meet their sustainability goals. By having all files in a cloud-hosted connected data environment, they can avoid printing papers and limit the amount of necessary travel. In 2020, their proposal “Designing less carbon-intensive infrastructure” was recognized for the effort and commitment to address the climate emergency by the community #PorElClima while providing their clients with the best experience.

“I would always choose ProjectWise,” said Fernandez. “We are building for the people, for the future. We are excited to be part of the industry reshaping in line with the sustainable development goals formulated by the UN. We are helping build a bridge over the river, as it were. And when we deliver our work in the best way possible, our clients are happy because they know the future has been greatly engineered.” Moving forward, TYPASA Group will continue to deliver higher-quality projects faster, demonstrating their industry-leading work to clients—powered by ProjectWise.

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