Marcos Roselló, BIM Champion at Ferrocarrils de la Generalitat Valenciana

How they did it

The challenge

While The TYPSA Group has worked on many high-profile projects, including the London-Birmingham high-speed rail line in the UK and transport systems in cities such as Stockholm, Madrid, Tokyo and Sydney, they wanted to improve their planning and design processes for the expansion of Valencia Metro’s Line 10. The railway sector in Spain is also growing and changing, transitioning to digitization across all phases of the railway project life cycle.

The TYPSA Group turned to BIM for the planning of buildings, installations and tunnels as well as the development of linear works and track elements, and the coordination between the different models. The right technologies and workflows were vital to the success of this project:

- For model coordination and clash detection
- For developing the line and track elements
- For all the building elements, installations and tunnels

The TYPSA Group used BIM to revolutionize Spanish railway and boost efficiency, quality, and control.

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The results

Complete overhaul of information and communications infrastructure, as well as check and review systems, to adapt them to this type of production. It let The TYPSA Group become the first major engineering firm certified in ISO 19650.

Greater control of projects → fewer errors → less rework → reduction in overall design time.

Teams specializing in linear works, architecture, structures, and installations for railway projects utilized BIM to transform their working processes through improved collaboration and easier asset management.

At FEV, we see BIM as an improvement opportunity for resolving many of the problems we were facing in our daily work as an infrastructure operator and manager, particularly in terms of asset management.

José María Pastor Villanueva, BIM Manager of the Valencia Territorial Office, The TYPSA Group

The bottom line

The application of BIM technology helped The TYPSA Group to:

- Save time by automating verification checks
- Efficiently manage information, design, and project complexity
- Reduce errors and overall design time
- Improve collaboration
- Benefit from 75% traceability of the estimated budget

Read full customer story