



Rollout of BIM Management for structures on Grand Paris Express lines: the consortium made up of AXIMA Concept (ENGIE Solutions), ACTH, SXD & VIANOVA SYSTEMS FRANCE has been selected

The consortium led by AXIMA Concept (ENGIE Solutions), with co-contractors ACTH, SXD & VIANOVA SYSTEMS FRANCE, has won the contact (no. 2019PN062) for Assistance to the Contracting Authority for the BIM Management of GRAND PARIS EXPRESS projects launched by SOCIÉTÉ DU GRAND PARIS (SGP).

The contract, in the form of a renewable framework agreement (initially for a four-year period), is designed to return value to the contracting authority. It is part of the BIM approach that SGP adopted several years ago, with the contracting out of project management and construction for the new lines of the future GRAND PARIS EXPRESS (GPE) metro. Covering 200 km of lines, 68 stations, and seven operations and maintenance centres, it is the largest infrastructure project in Europe to date.

Through deployment of the BIM approach, SGP encourages all its partners to develop initiatives that help it achieve its operational support objectives for project management, or which extend them, through concurrent multi-trade BIM design by all stakeholders, and direction for performance of the work under BIM involving multiple simultaneous activities.

For SGP, BIM design is understood as referring to design underpinned by the production of digital models at the pre-design stages, followed by project studies representing the As Designed project as faithfully as possible.

In the construction phases, the direction of execution under BIM is understood as meaning management of execution studies and direction and supervision of the works based on the production of digital models of execution plans, and then as-built files representing the As Built project as faithfully as possible.

For the GPE contracting authority, this contract awarded to our consortium should contribute to:

- Stepping up the BIM maturity of its teams, in particular for monitoring the performance they are entitled to expect in the analyses and control of the interfaces between the different types of structure (stations – tunnels/shafts – ancillary and functional structures), and between trades (land management – earthworks/excavation/foundations – geotechnical engineering – civil engineering – architectural and technical trades – fit-out – systems)
- Supporting its employees in the use of reliable, durable and interoperable BIM data produced by the project managers and construction companies, facilitating the supervision of operations and management of project performance, costs and deadlines
- Setting up a single data repository shared between all stakeholders, throughout the project's life cycle, meeting the need for digital continuity, to ensure collaborative work and limit the risks associated with data being re-entered by different stakeholders
- Preparing digital documentation highlighting the opportunities presented to the contracting authority through the use of digital models:
 - project review and synthesis under BIM
 - management of the geometry and siting of structures
 - management of time frames, sequencing and scheduling (4D)
 - production of deliverables and contractual drawings
 - quantity surveying and extraction of quantitative data
 - data control and validation

- communication
- concerted decision-making support
- operations prior to acceptance
- creation of the As-Built Files and their review

This BIM approach also reflects SGP’s absolute certainty, as a public contracting authority and for the entire sector, that value added lies in digitising the design and construction processes for infrastructure and development projects, and in supporting OpenBIM, IFC/BCF & ISO standardisation work.

In this context, SGP has selected the AXIMA CONCEPT – ACTH – SXD – VIANOVA SYSTEMS FRANCE consortium for:

- Its operational BIM expertise in building and transport infrastructure projects, in upstream programming phases, detailed design, implementation monitoring, review and documentation, and handover to operations/maintenance
- Its knowledge of the use made of BIM on similar projects, its involvement in working groups and supervision of national and international projects related to IFC, OpenBIM & ISO
- Its experience in skills acquisition as a professional trainer in building BIM, infrastructure BIM and change management

The award of this contract consolidates the position of ACTH, SXD & VIANOVA SYSTEMS FRANCE as recognised consultants in value analysis and the operational deployment of a BIM approach for the management of major infrastructure and urban development projects.

About AXIMA Concept (ENGIE Solutions)

Part of ENGIE’s BIM Factory, as leader of the consortium Axima Concept brings its involvement in the digital transition of business processes and the robustness expected by SGP, contracting authority for this major Grand Paris Express project.



About ENGIE Solutions

ENGIE Solutions supports cities, industries and companies in the tertiary sector, providing them with solutions to the challenges posed by the energy transition in the form of turnkey and bespoke packages.

ENGIE Solutions’ experts apply all their expertise in pursuit of three aims: optimising the use of energy and resources, greening energies and reinventing living and working environments.

ENGIE Solutions guarantees its clients a single point of contact and a combination of complementary offerings that go beyond energy. The company is committed to achieving results and its 50,000 employees which operate throughout France (900 sites) have expertise in an extremely diverse number of areas, ranging from the design and operation of infrastructure and services, to funding, installation and maintenance.

ENGIE Solutions is part of the ENGIE Group, one of the world’s leading low-carbon energy and services groups whose purpose is to act to accelerate the transition towards a carbon-neutral world. Turnover: €10 billion To find out more:

<https://www.engie-solutions.com/en>



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About ACTH SAS, CAD/BIM consulting and training

Founded in 1990, ACTH specialises in **advice, training, support** and **deployment of the digital transition** for companies and stakeholders in Architecture, Engineering, Construction and asset management, through the integration of **BIM/CIM**.



Combining our **consulting** and **training** activities, we provide training and support at all stages of projects (design, execution, operation, maintenance) and for all types of structure (housing; tertiary; industrial; linear, road, rail, river and port infrastructure, etc.).

ACTH SAS has built its ethics around people and puts its principles into practice to work towards a reasoned digital transition.

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About SXD SAS, member of ENGIE's BIM Factory

From within ENGIE's BIM Factory, SXD SAS operates in the following areas: providing project owners with assistance in BIM, Operation-Maintenance, Construction; BIM/CIM Management; 3D architectural and technical synthesis; 3D architectural and technical modelling; BIM R&D in augmented reality and Landscape Information Management (LIM).



With its interdisciplinary team and recognised BIM/CIM expertise in these fields, SXD has everything it needs to best meet SGP's expectations for this project.

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About VIANOVA Systems France

Founded in 2005, VIANOVA Systems France combines skills in organisational methodology and operational deployment of collaborative BIM platforms for concurrent design and supervision of the implementation of infrastructure and development projects. It has 15 years' experience, particularly in providing assistance to project owners, both public and private, on major road, rail and underground infrastructure operations, in France and internationally.



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