With Autodesk, the future is already at work. The digital challenge to build major infrastructures.

COMPANY
SIMICO S.p.A

LOCATION
Milan-Cortina

SOFTWARE
Autodesk Construction Cloud
Autodesk AEC
Autodesk Docs
Autodesk Tandem
BIM Collaborate PRO

Milan Headquarters |
Courtesy of SIMICO – Società Infrastrutture Milano Cortina 2020-2026 S.p.A.

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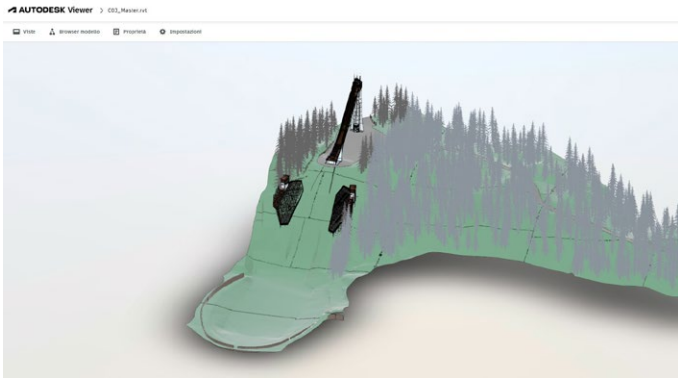
> Eng. Lucia Samorani
> Technical Director, SIMICO

For SIMICO, digitalization is not just a goal but a responsibility. Thanks to the adoption of AUTODESK technologies, the company has transformed the way it designs, builds, and manages its complex projects, such as the infrastructures connected to the winter Games.

Company

SIMICO is the Società Infrastrutture Milano Cortina 2020–2026 S.p.A., a public company wholly owned by the Ministry of Infrastructure and Transport, the Ministry of Economy and Finance, the Regions involved in the *winter* Games (Lombardy and Veneto), and the Autonomous Provinces of Trento and Bolzano. The Company's statutory mission is to implement the public works set out in the Decree of the President of the Council of Ministers dated 8 September 2023 and subsequent amendments. This document identifies 98 projects – 51 infrastructural and 47 sports-related – with a total value of approximately €3.4 billion. To date, all 31 projects essential to the Games are on track to be completed and delivered in time for the event. This achievement has been made possible through strict adherence to the threefold commitment to respect deadlines, costs, and quality, while ensuring maximum transparency and full compliance with the law.
Established in 2021, the Company underwent a change in governance in February 2024 with the appointment of the current Chief Executive Officer and Government Commissioner, Architect Fabio Massimo Saldini. Among the most significant milestones has been obtaining the pre-certification of the bobsleigh, skeleton, and luge track – considered the symbolic project of these Games.
Described by many as a "miracle," SIMICO prefers to define it as the result of rigorous work, meticulous planning, and countless sacrifices shared by all, in order to deliver the most remarkable Games ever.



Cortina Jump BIM Infrastructure on Autodesk Viewer | Courtesy of SIMICO - Società Infrastrutture Milano Cortina 2020-2026 S.p.A.

Vision, innovation, organization: the model for designing public works

"At a strategic level, our Chief Executive Officer has always encouraged an ambitious approach in setting up the projects and works we were about to undertake," says Eng. Lucia Samorani, Technical Director of SIMICO.
"We were asked to be visionary, to anticipate the future and to turn every project into a concrete example of technological and organizational progress – a model for the entire Italian public administration to follow."
Building on this vision, and with the assumption of new responsibilities linked to Digital Governance, SIMICO began working on several key concepts: Digital Twin of the works, BIM, Sustainability Certifications, Artificial Intelligence, and the full digitalization of construction sites. All essential elements for a real and effective transformation of the public infrastructure sector.
In this journey, AUTODESK has played a central role, providing tools and solutions that have enabled SIMICO to translate this vision into practice and to concretely innovate the processes of design and management of public works.

Digital governance: an effective tool for coordination

Eng. Francesco Cappilli, Head of Digital Governance, joined SIMICO in 2024, stepping into an organization already highly advanced and consolidated in the digitalization of processes – particularly in areas such as the digital construction site (ACDat) and the coordinated management of on-site activities.
"When I arrived, I found a very skilled team, already well-structured and well-trained. All of us – including the team managers, architects Massimo Sanzari and Marco Isernia, and Eng. Luigi Guadagnuolo – are certified BIM Managers under UNI 11337. The AUTODESK Construction Cloud platform we use also allows us to set workflows in full compliance with this standard, ensuring that the entire supply chain rigorously follows both Italian and international regulations," he explains.
"The team gave me their full support, which was a real advantage," Cappilli continues. "It allowed me to integrate some digitalization solutions I was already experienced with, especially those linked to the concept of the Digital Twin. This is the step beyond the 'operation' phase – the stage tied to operational BIM – which we are now moving towards, particularly in the final phases of construction and in the subsequent management of the works."

From design to delivery: how Autodesk Docs reshaped SIMICO's workflow

"As for AUTODESK technology," continues Eng. Cappilli, "its contribution has been crucial at every stage of the infrastructure lifecycle – from design to management – thanks above all to continuous interaction with stakeholders through tools such as AUTODESK Docs. This solution, for example, acts as a Common Data Environment (CDE), cloud-based within the AUTODESK Construction Cloud platform, centralizing all project documentation.
"AUTODESK Docs makes our daily work much easier. First of all, it ensures that every team member always works on the latest version of each document, keeping track of all revisions. Then, thanks to the approval workflow, we can automate and standardize review processes: this reduces manual errors and provides full traceability of what gets approved."
"Another key aspect is real-time collaboration: anyone on the team can view documents, leave comments, or add annotations directly on 2D drawings or 3D models, making communication more immediate and effective. Finally, access management clearly defines who can see what, ensuring that sensitive information remains protected and accessible only to authorized people."
"And let's not forget about the time saved," Eng. Cappilli adds. "The adoption of AUTODESK Docs has truly saved us valuable time – in some cases days or even weeks – on certain delivery processes, particularly for documentation and digital models."
"Now, with real-time delivery and control of digital models, reviews and approvals happen almost instantly. Before, feedback cycles could take days or weeks; today, we can check compliance and completeness as models are updated. This not only

speeds up delivery but also reduces errors and subsequent revisions."
"Internal coordination has also become much simpler. All data is centralized on a single platform – no more endless emails or multiple servers to sync. The result? Hours of work saved, which the team can now dedicate to design and accurate analysis, the activities that truly add value," Eng. Cappilli concludes.

Smart collaboration with BIM Collaborate PRO

"The other tool that helps us coordinate project models across the different disciplines is BIM Collaborate PRO," continues Eng. Cappilli.
"We aggregate different models into a single federated model, giving us a complete view of the project and allowing us to follow all revisions without confusion."
"Then there are the coordination spaces: each team can test and analyze clashes without interfering with the work of others, which makes collaboration much easier. What's more, the federated models are accessible to the entire team, not just BIM specialists. Thanks to the cloud viewer, even those without design software can explore and understand the project.
"Another advantage is the ability to easily share views with the construction site via mobile devices, so managers immediately have the visual context they need to make quick decisions. Last but not least, with the PRO version we can make real-time changes directly on the cloud models, making the management and review process even faster."

All your project data in one place: the value of Autodesk Construction Cloud

An additional reflection on the AUTODESK Construction Cloud ACC platform comes from architect Marco Isernia, BIM Manager at SIMICO. "What we truly value about ACC is the platform's continuous updates, especially regarding open formats such as IFC. The goal is to manage the entire process within a single environment, speeding up validations and making workflows more efficient."
"For us, ACC has been extremely useful both in design and execution: it has become the single container for models, documents, and information, enabling us to meet deadlines and quickly resolve critical issues. The strength of ACC lies in the fact that it is a connected and flexible platform: it integrates modules such as Docs, Build, BIM Collaborate, and Takeoff, allowing teams to create customized workflows that link design, planning, and construction without being constrained by rigid processes."
"The centralization of all data into a single source enables different teams to work on the same models in different ways: some perform clash detection, others work on 4D planning or quantity take-offs – all within the same environment. Moreover, we can customize reports, fields, and approval flows, and continue using our preferred tools thanks to support for multiple formats. This allows us to adapt the platform to our needs and experiment with new processes to optimize analysis and monitoring," explains Arch. Isernia.

BIM on site: driving efficiency, transparency, and smarter management with Build

In complex projects, collaborating with multiple suppliers is never easy, especially when each one works with different standards. "The mandatory use of BIM has helped simplify coordination and improve design quality, while reducing problems on site," explains architect Isernia.
"Today, on the design side, the situation has improved considerably because we work with highly skilled professionals. The most complex phase remains construction, due to the tight schedules and speed required. One important step forward is that work progress is now updated directly in the models: activities are brought into BIM, and this helps us manage everything more effectively."
"The mobile app of AUTODESK Construction Cloud has been a real game changer in this respect. We can access data directly from the site, consult updated drawings and models even offline, manage issues and RFIs, fill out checklists, monitor progress, and track assets. This way, field teams are always connected with the office and work with the latest information."
"For unexpected issues – which are inevitable on site – we rely on AUTODESK Build. It's the module dedicated to construction management and allows us to log and track any issue with precision, assign responsibilities, and follow everything through to resolution. It also connects different processes: for example, an issue can immediately become an RFI if clarification is needed. This increases transparency and accountability, as everyone has a clear view of the project's status and can step in before problems become critical," concludes l'Arch. Isernia.

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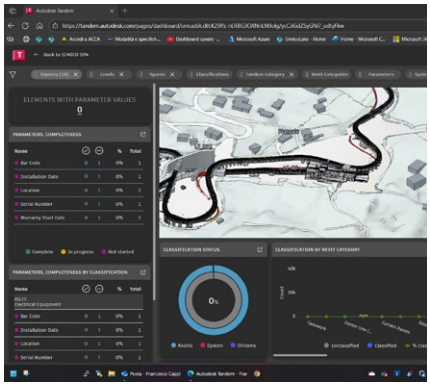

Cortina Sliding Centre Screen in Autodesk Tandem | Courtesy of SIMICO – Società Infrastrutture Milano Cortina 2020-2026 S.p.A.

Autodesk Tandem: the platform that extends the value of BIM data

"We are now also paving the way for the use of Digital Twin with AUTODESK Tandem," says Eng. Cappilli.
"We have already carried out some pilot projects in this area, convinced that the future of infrastructure operations will also rely on technologies such as artificial intelligence and the IoT (Internet of Things). For this reason, we are working on two solutions: one developed in-house, integrated with a platform oriented more toward gamification than pure engineering, but extremely useful for real-time rendering; and the integration with AUTODESK Tandem, which represents the most advanced additional tool in this journey."
"AUTODESK Tandem enables us to leverage BIM data even after construction. The most valuable feature is the digital handover: we have a virtual copy of the asset containing all the design, construction, and commissioning data, ensuring that no critical information is lost."
"Moreover, we can connect the model to sensors or IoT systems to monitor performance in real time, optimize consumption, and plan maintenance.

All management data is centralized and easily accessible, and we can also simulate future scenarios to support more informed decision-making."

Technology and training for sustainable infrastructures

"Responsibility does not end with the construction of well-designed works: it must also extend to their effective and sustainable management. Just as a toy should be intuitive, infrastructures too must be easy to use, with learning paths that support operators in managing them," notes Eng. Lucia Samorani.
"Our goal, shared with the Chief Executive Officer, is to ensure that anyone interacting with digitalized infrastructures has the tools and knowledge needed to do so effectively, guaranteeing a future of efficiency and innovation for our country."
In conclusion, focusing solely on design is not enough – it's essential to consider the future and how the asset will be managed. Challenges are inevitable, but with AUTODESK technology we've truly made a difference, simplifying operations and ensuring a smoother, more efficient process for everyone involved.

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