

# SPORT FACILITIES DESIGN DEPARTMENT

Brochure

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## The Department

Sport Facilities Design is the ITS Engineering department dedicated to designing, building, and managing infrastructures for sports, tourism, and leisure. Thanks to a multidisciplinary approach and extensive experience in the sector, the team can develop complex and innovative projects and provide tailored technical solutions for mountain and urban contexts.

A deep knowledge of the territory, combined with the most advanced modelling and monitoring technologies, ensures results that meet the highest efficiency, safety, and sustainability standards. The department oversees the design phase and ensures full lifecycle management of the projects, from conception to construction supervision and maintenance.

Integration with other ITS Engineering departments guarantees a broad range of expertise essential for addressing every aspect of sports and tourism infrastructure development, with a strong focus on quality, functionality, and environmental impact.



### Services

#### of Cable Transport System Design

Development of solutions for chairlifts, cable cars, and gondolas for passenger transport in sports, tourism, and urban settings.

#### 02 Sports Infrastructure Design

Construction of sports fields, tracks, arenas, and other facilities for various disciplines, focusing on functionality and safety.

#### 03 Environmental Analysis and Risk Assessment

Territorial and environmental studies to ensure maximum safety and sustainability of projects.

Analysis of project impacts on the natural environment and development of solutions that minimize environmental impact while promoting sustainability.

#### 04 Geotechnical and Structural Analysis

Specialized studies for terrain assessment and foundation design for cable transport systems and complex infrastructures, ensuring long-term stability and durability.

#### 05 Monitoring and Control

Implementation of innovative systems for the monitoring and management of sports infrastructures, enhancing operational efficiency and maintenance.

#### 06 Development of Preventive Maintenance Plans

Creation of strategies for scheduled maintenance of structures, ensuring longevity and reducing operational costs.

## Our Projects



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## Stelvio Alpine Centre

#### Renovation of Race Tracks and Starting Zones

The project involves renovating the race tracks and starting zones of the Stelvio slope in Bormio. The slope will host the men's alpine skiing disciplines, including downhill, super-G, giant slalom, slalom, and combined events, for the 2026 Winter Olympic Games. The project consists of the following main elements:

- Improvement of the starting zones for all disciplines, with the creation of new structures for the downhill and slalom starts, which will become the symbols of the slope.
- Renovation of the final section of the slope, with widening to accommodate the new slalom special track, enabling the combined slalom-downhill activity.
- Implementation of safety standards, including the localized widening of the slope in key areas, repositioning type A safety nets, and the installation of new type A protection nets.
- Renovation of the ski tunnel crossing at Fontanalunga, addressing current interference with the race track.
- Demolition of the old finish tower at the lower section of the slope.
- Renovation of the existing lighting system, replacing the old iodine lamps with new LED projectors, and moving several existing light poles in line with the new track layout.



Location: Lombardy, ITALY

Client: Infrastrutture Milano Cortina 2020 - 2026

Year: 2024

Work amount: €11,810,200.00 Categories: Categories:

Services provided: Work supervision, safety coordination during execution phase

## Livigno Snow Park

Construction of Half Pipe, Slopestyle, Parallel Giant Slalom, and Snowboard Cross Tracks, amd istallation of a Lift System for Competition Areas

The Livigno Snow Park project is part of the Milano Cortina 2026 Winter Olympics infrastructure plan to host snowboard and freestyle skiing events. Located within the Mottolino Fun Mountain ski area in Livigno, the project involves shaping and preparing the competition tracks, including Half Pipe, Parallel Giant Slalom (PGS), Snowboard Cross, and Slopestyle. Additionally, the project includes the construction of a quad chairlift for athlete transportation and geotechnical reinforcement to ensure slope stability and safety. Key Interventions:

Race Track Preparation:

The project involves terrain modelling and the construction of four main competition tracks - Half Pipe, Parallel Giant Slalom, Snowboard Cross, and Slopestyle. Each track requires earthworks to adjust slopes and create specific elements such as waves, ramps and jumps for the Slopestyle course.

• Geotechnical Reinforcement:

The intervention includes stabilization works on the slopes using reinforced soil techniques with geogrids, especially in areas with significant excavation and landfills.

• Lift System Construction:

The project includes the installation of a quad chairlift with a fixed grip, featuring a capacity of 1,800 people per hour. The lift line will cover 580 meters, with a vertical drop of 199 meters and an average slope of 34.5%. The drive station will be located at the valley base, while the return station will be fixed at the summit.



Location: Lombardy, ITALY

Client: Infrastrutture Milano Cortina 2020 - 2026

Year: 2024

Work amount: €14,732,200.00

Categories: -

Services provided: Safety coordination during execution

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## Baselga Ice Rink

Redevelopment of the speed skating facility – Lot 1: Renovation of the existing indoor arena in Baselga di Pinè

The renovation of the indoor arena in Baselga di Pinè is an international-scale project designed to upgrade the facility to meet the standards required for Olympic speed skating competitions. Located in the heart of the Dolomites, this intervention balances advanced functionality and respect for the surrounding natural environment.

The project focuses on improving the existing infrastructure, ensuring high technical performance and enhanced experience for athletes and spectators. Through cuttingedge design solutions, the redevelopment guarantees the facility's sustainability and durability, preparing it to host world-class sporting events.

This initiative is not merely a technical upgrade. Still, it aims to establish Baselga di Pinè as a benchmark for international sports, further enhancing the Trentino region's centre of sporting excellence.



Location: Trentino-Alto Adige, ITALY

Client: Infrastrutture Milano Cortina 2020 - 2026

Year: 2024 - ongoing Work amount: €3,000,000.00

Categories: -

Services provided: Design, construction supervision, safety coordination during

execution phase

## Cortina Sliding Centre

## Redevelopment of the Bob, Skeleton, and Luge Track in Cortina d'Ampezzo

The project involves redeveloping the historic "Eugenio Monti" bob track in Cortina d'Ampezzo, an iconic venue of Italian winter sports and host of the 1956 Winter Olympics. The plan includes demolishing the outdated structures and building a new, modern track that meets the latest international safety and technology standards.

The new facility, designed to host Olympic and Paralympic competitions for Milan-Cortina 2026, will feature an advanced timing system, state-of-the-art race monitoring technologies, and innovative safety features for athletes and spectators. The track will be a versatile and high-performance route designed for the bobsleigh, skeleton, and luge disciplines, fully compliant with the strict international regulations set by the International Bobsleigh and Skeleton Federation (IBSF).

The redevelopment also includes constructing a modern starting station, technical areas for equipment maintenance and control, and supporting infrastructure for the public, such as grandstands, hospitality areas, and media spaces. This ambitious project is part of the broader plan to upgrade sports facilities for the 2026 Winter Games, with a strong focus on environmental sustainability, employing low-impact construction methods and eco-friendly materials. We successfully managed the construction phase by implementing innovative construction and site production solutions, achieving final approval of the structure in just 11 months.



Location: Veneto, ITALY

Client: Infrastrutture Milano Cortina 2020 - 2026

Year: 2024 - Ongoing Work amount: €78 million

Categories: -

Services provided: Final and executive design, safety coordination during execution

phase, work supervision

## Mottolino Cablecar

#### New Automatic Attachment Lift System

The project involves the replacement of the Ponte Bondio "Mottolino" cable lift with a modern automatic attachment lift system, designed to enhance efficiency and transport capacity to the Snowpark area. An integral part of the Milano-Cortina 2026 Olympic infrastructure, the lift will serve the competition venue, ensuring a capacity of 1,800 people per hour and meeting the highest safety and sustainability standards.

Located in Lombardy, the track will connect the starting station at 1,831 m with the arrival station at 2,030 m, covering a distance of 580 m and a height difference of 199 m, with an average slope of 34.5%. The selected system is a quadruple chairlift with fixed automatic attachment, chosen for its reliability and cost-benefit optimization, in compliance with Regulation (EU) 2016/424.

Construction operations include creating a motor tension station in the valley and a fixed return station at the mountaintop. Both are designed to minimize environmental impact while ensuring maximum functionality. The project has complied with the Infrastructures Decree (D.D. n. 172/2021), with certified components from Notified Bodies and infrastructures approved by USTIF.

This intervention represents a significant contribution to modernizing the ski area and improving the experience for athletes and visitors, which aligns with the accessibility and innovation objectives of the 2026 Winter Olympic and Paralympic Games.



Location: Lombardy, ITALY

Client: Infrastrutture Milano Cortina 2020 - 2026

Year: 2024

Work amount: €10,970,792.99

Categories: -

Services provided: Design, work supervision, safety coordination during the execution

phase

## Cortina Skyline

New cable car for the World Cup Finals and Alpine Ski World Championships in Cortina d'Ampezzo

Built for the Alpine Ski World Cup Finals (March 2020) and the Alpine Ski World Championships (February 2021), the "Son dei Prade – Bai de Dones" cable car system is a key infrastructure for enhancing sustainable mobility and improving tourism in Cortina d'Ampezzo. It is part of a broader renewal project aimed at improving accessibility for residents and tourists visiting the city.

This new infrastructure, designed to ensure fast and efficient connections, links the Tofane ski system with the Lagazuoi-Cinque Torri area, reducing road traffic and easing access to the ski slopes.

With a total length of about 4.6 km, the system is divided into two sections, with an intermediate station. The 70 cabins, each with an 8-person capacity, can transport up to 1,100 people per hour, ensuring a steady flow of skiers and tourists during peak hours. The lift system is designed with a strong emphasis on sustainability, utilizing advanced technologies that minimize environmental impact, seamlessly blending into the alpine landscape without disrupting its natural beauty.

This new infrastructure, an integral part of Cortina's tourism and sports landscape, provides a modern and sustainable solution for connecting the ski resort's main slopes and addressing long-standing mobility challenges in the area.



Location: Veneto, ITALY

Client: Province of Belluno

Year: 2019 - 2021 Work amount: €16 million

Categories: -

Services provided: Construction supervision, safety coordination during execution

## Ski area Col Druscié

#### New Lift System to Improve Ski Mobility in Cortina d'Ampezzo

The intervention in the Tofane ski area in Cortina d'Ampezzo involved the replacement of the "Freccia nel Cielo" cable car system with a new lift system, designed for the 2021 Alpine Ski World Championships. Developed under a project financing model, this new lift enhances access to Col Druscié, quickly linking the ski resort's slopes and reducing road traffic.

The new lift is a 10-seat automatic mono-cable gondola, with a capacity of 1,800 people per hour. It consists of two sections, an intermediate station, and a completely rebuilt valley station, improving both functionality and aesthetics. Additionally, the lift is powered by a new electric transformation substation.

This project is part of a broader plan that includes the renovation of the mountain station, improvements to the ski slopes, and the creation of a new access road. The work was completed on time, involving numerous companies, with careful management of safety and environmental concerns.

In our role as construction supervision and safety coordination, we played a critical part in ensuring that all activities adhered to safety regulations, coordinated the construction site, and monitored progress. Special attention was given to the safety of workers, risk management at high altitudes, and minimizing environmental impacts. Moreover, the coordination of contractors ensured that timelines were met, and the final quality of the project was upheld.

This intervention enhances the tourism infrastructure and improves the skiing experience, benefiting both visitors and the management of the ski resort.



Location: Veneto, ITALY

Client: Province of Belluno

Year: 2019

Work amount: €11,682,000.00

Categories: -

Services provided: Construction supervision and safety coordination during execution

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## Zipline Sauris

## Design and Construction of a Zipline Course Integrated into the Friulian Landscape of Sauris (UD)

Nestled in the breathtaking mountainous landscape of Carnia, the Sauris Zipline offers a unique experience combining sport, adventure, and nature. Designed to seamlessly integrate with its surroundings, this infrastructure provides a thrilling ride that enhances the territory without compromising its natural beauty.

The project focused on creating a safe and accessible course, ensuring maximum sustainability in the choice of materials and construction techniques. Every detail was meticulously crafted to offer users an adrenaline-pumping and immersive experience while minimizing environmental impact.

With its stunning vistas and thoughtful design, the Sauris Zipline is an attraction and a symbol of the harmonious balance between innovation and nature.



Location: Friuli-Venezia Giulia, ITALY

Client: Area Science Park

Year: 2018

Work amount: €165,000.00

Categories: -

Services provided: Construction supervision, testing

## Ski area Rumerlo

Interventions in the Rumerlo Area for the Alpine Ski World Championships "Cortina 2021"

The project involved an area between 1,500 and 1,850 meters in elevation, at the foot of the Tofane mountain range on the southern slope east of Cortina d'Ampezzo. The interventions were key to hosting the Cortina 2021 Alpine Ski World Championships, specifically for the men's and women's speed events.

Key works included the completion of the "Vertigine Bianca" track, designed for the men's speed disciplines. To ensure the Finish Area met FIS (International Ski Federation) standards, it was relocated above the current road, creating a new Finish Area (Lot B) immediately downhill from the Ristorante Camineto. To maintain traffic flow, a road bypass, Bypass Rumerlo (Lot A), was constructed on the east/northeast side of the restaurant. Additionally, to allow skiers to cross the Vertigine track during competitions, three ski tunnels were built for safe access.

The project was divided into three functional phases:

- Upgrading the local road network to improve access to the Rumerlo and Pié Tofana ski areas.
- Construction of the new Rumerlo Finish Area.
- Development of three ski access tunnels on the "Olympia" and "Vertigine" tracks.



Location: Veneto, ITALY

Client: Fondazione Cortina 2021

Year: 2016 - 2018 Work amount: €4,839,913.34

Categories: V.03, S.03, S.04, S.05, D.04, D.05, P.01, IB.08

Services provided: Technical and economic feasibility study, final and executive design,

safety coordination during design phase





#### Operational offices

#### Italy

Pieve di Soligo (TV)

Padua (PD)

Cortina d'Ampezzo (BL)

Bolzano (BZ)

Catania (CT)

Venice (VE)

Verona (VR)

#### Abroad

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