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## Sinergo Spa

🗧 Sinergo headquarter

Sinergo is one of the leading design companies in northeastern Italy. Thirty years of experience in the field of engineering enable us to engage with complex projects using an agile and multidisciplinary team, both for public and private clients. This is because our focus is on integrating specialized components, thanks in part to BIM technology.

Integrated design - we develop and coordinate the conception, authorization process, design, and implementation of complex projects in major Italian cities - Venice, Rome, Verona, Milan, Bologna, Trani, Palermo. In projects for civil and industrial buildings, we pay particular attention to the integration of specializations. In tertiary and large public works projects, in addition to collaborating with international firms, we have been participating in design competitions and tenders for years, both independently and with the most promising Italian architecture studios

**Mobility and infrastructure –** we are active in the main Italian airports – including Venice, Verona, Milan, Palermo, Bergamo, Rome Fiumicino, and Bologna - and we have extensive experience in designing specialized facilities such as baggage handling systems (BHS), aviation ground lighting (AVL) infrastructures, and ground support equipment for aircraft. Within airport areas, we are developing the first Italian projects of solar farms along runways for decarbonization and energy savings. In the infrastructure sector, we have multi-year framework agreements with ANAS and RFI, and we are involved in road projects and large-scale structural works commissioned by the public sector.

**Energy transition** – we rely on a specialized team for the development of initiatives related to ecological and energy transition. This includes the production of energy from medium and large-scale renewable sources such as solar, wind, hydroelectric, biogas, biomass, biomethane, and thermodynamic solar. We are also involved in district heating, electric mobility, and energy efficiency for both civil and industrial constructions.



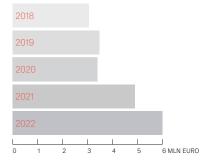
▲ the working group of Sinergo



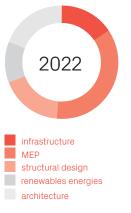
## sinergo

## production value 2017-22

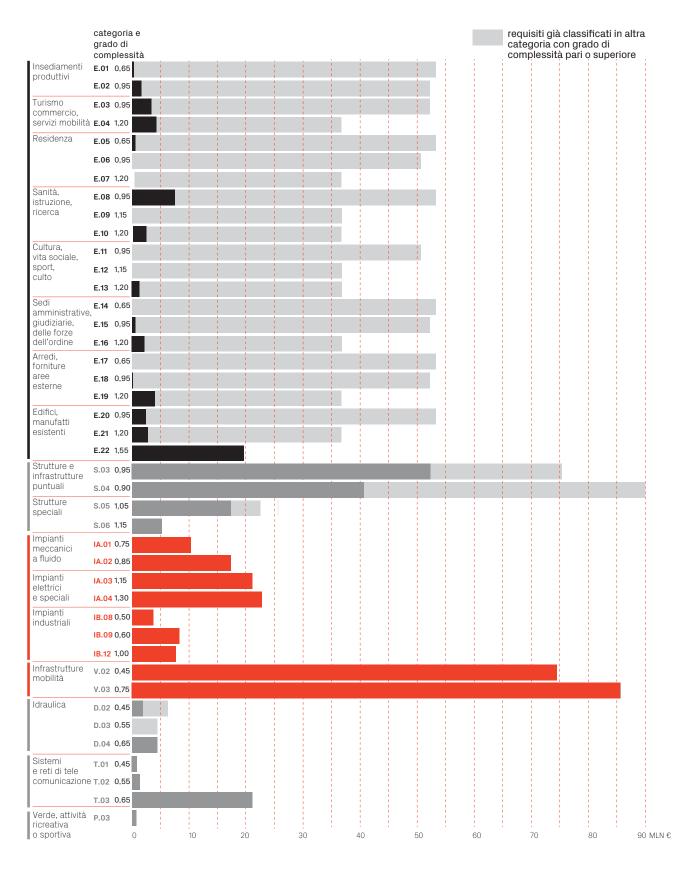
## 20.960.000 €



## Breakdown of production values



## prospetto dei requisiti DM 143 31 ottobre 2013





## board of directors



president and founder Luigi Muffato



chief executive officer Filippo Bittante



vice president Alberto Muffato



board member Anna Muffato

## ■ the working group

of Sinergo

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## administration

### HSQE management

### Simone Ochs

## administration, staff, finance,

## purchases

Anna Muffato Deborah Carniato Paola Mitra Roberta Malosti Elisa Zanini

### secretariat

Silvia Anoè Alice Riccato

## tender department & communication

Sara Calisti Leonardo Monaco Mazza Alessia Boldrin Nicole Fava

### Rodica Vilcu

## IT management

Alex Gambicchia

## technical directors

Filippo Bittante Marco Brugnerotto Alberto Muffato Stefano Muffato Vincenzo Baccan Marco Pace

## design team

### production coordinator

### Simone Ochs

## architecture

supervisor Francesca Cremasco

Alessia Boldrin Nicole Fava Nicola Favaro Leonardo Monaco Mazza Enrico Robazza Elnaz Saadatiyeganeh Annapaola Villano Angela Zamunaro

### structural design

supervisor Marco Brugnerotto

Shahin Amayeh Sohrab Amayeh Domenico Citrea Francesco Fraccaro Daniele Lucchiari Giovanni Palù Giulia Zaramella Pietro Zuffellato

### infrastructure works

supervisor Marco Brugnerotto

Jacopo Brighenti Giacomo Duso Simone Galante Jessica Parisotto Alessandro Peron Carmelo Pietro Saraceno

### infrastructure

supervisor Marco Fardin

Giulia De Marchi Leonardo De Rossi Barbara Marin Katia Marolda Francesco Venturini

### works management

supervisor Marco Pace

Alex Bernabucci Simone De Lillo

## safety

supervisor Stefano Muffato

Leonardo Callegarin Marco Fattore Daniele Lucchiari Riccardo Naletto

30% Female employment

16% Employment under 30

## renewable energy

supervisor Enrico Cossalter

Daniele Capozzi Simone Coletto Marco Galtarossa Enrico Gasparotto Marta Sperindio

### electrical systems

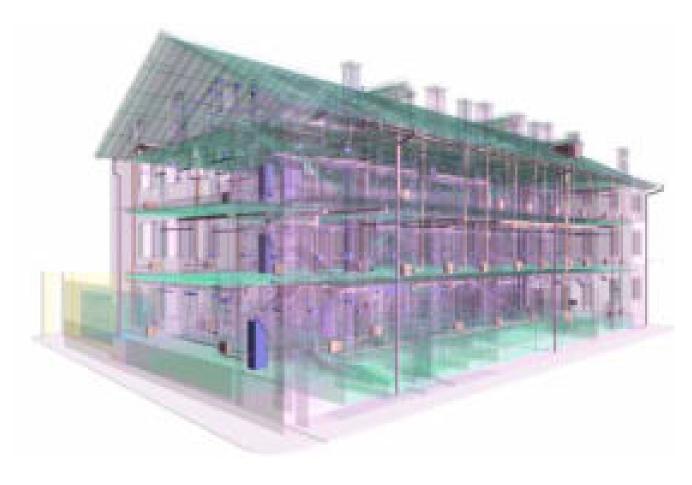
supervisor Carlo Laurenti

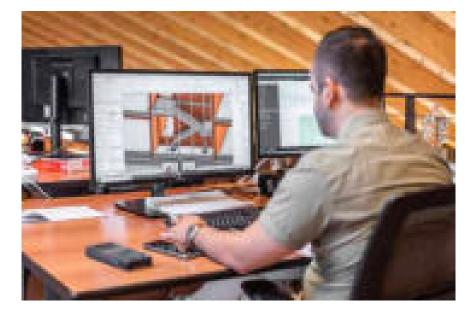
Alberto Boscolo Pecchie Matteo Graziussi Alberto Griggio Matteo Longato Daniele Marchesini

### mechanical systems

supervisor Giovanni Moreschini

Elisa Karen Buja Marco Cester Davide Pizzolato Davide Potente Alessandro Prete Marco Tosi





## Building Information Modelling

BIM model of the redevelopment project of the former Tasso barracks in Belluno

Consistently with our multidisciplinary approach, we design using the BIM methodology Building Information Modeling. We have multiple licenses of Autodesk Building Design Suite software, which serve architectural, structural, mechanical, and infrastructural development of models. The design process involves coordinating models from various disciplines - including integrating ifc files generated from multiple BIM Authoring software - to check for geometric clashes and inconsistencies (clash detection) as well as informational discrepancies (code checking). With BIM, we monitor project quantities and costs (quantity take-off), minimizing calculation errors and forecasting cost margins.

Our design development applies to both buildings – whether new constructions or existing ones – and infrastructures. Our integrated approach has enabled collaborations with universities – including Politecnico di Milano and the University of Padova – on various topics, with a particular focus on HBIM for heritage buildings and the generation of BIM models from point cloud surveys (scan to BIM). Additionally, we are working on managing models in the open IFC (Industry Foundation Class) format and their parameters through IfcPropertySet, in line with client requirements, allowing model property consultation for all stakeholders in the process.

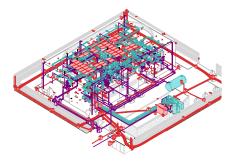
**Collaborative mode** – Integrated design is achieved through multidisciplinary collaboration, often involving teams operating in different locations. Hence, we utilize cloud-based collaboration and coordination platforms for managing BIM models (Common Data Environment). These platforms facilitate web-based model sharing with the design team, clients, and stakeholders, progress verification reporting, collaborative modeling, and real-time resolution of design interferences and issues.

**BIM and Quality System** – Since 2016, the BEP – BIM Execution

Plan, has been an integral part of our Company Quality System. This document aligns with BIM Decree 560 of December 1, 2017, EN-ISO 19650 standards, UNI 11337, and PAS 1192, formalizing our approach to digital process management. It defines: a. roles and responsibilities of involved figures - BIM Manager, Coordinator, Specialist/Modeller; b. the correlation between project development levels defined by the procurement code and LOD (Level of Development) established by the American Institute of Architects; c. methods for setting stakeholder objectives, deadlines, and transmission formats; d. protocols for verifying geometric clashes and informational inconsistencies; e. computational resources allocated to the project.







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Judicial Offices and Archaeological Museum of Palazzo Carcano

Trani 2022- on going

client Agenzia del Demanio

work amount 9.000.000 €

activities carried out

technical and economic feasibility study, final, executive design project

working group

Sinergo (group leader), Demogo (architecture project), Emma Capurso (archeologia)

## Expansion of Bertarini Barracks

Bologna 2018 - 2023

### client

Agenzia del Demanio di Bologna

work amount 5.586.000 €

activities carried out

bim, integrated final and executive design project, site supervision, and safety coordination

working group

DEMOGO (co-progettisti architettonici), Beniamino Costantini (geologo)

### Fidenza Financial Police Station

Fidenza, Reggio Emilia 2020

client

Agenzia del Demanio dell'Emilia-Romagna

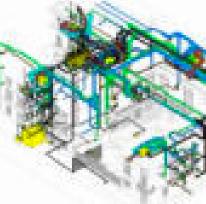
work amount 2.473.000 €

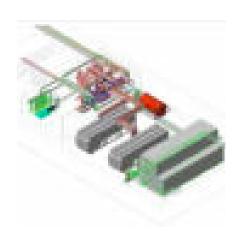
activities carried out bim, final design, executive design, safety coordination during the design phase

### working group

Sinergo Spa (group leader), Openbuilding Srl, arch. Elisa Sirombo, Matteo Collareda, Semper Srl







## The Alberto Parolini Agricultural Institute

Bassano del Grappa 2021 - on going

client Provincia di Vicenza

work amount 5.914.000 €

activities carried out

technical and economic feasibility study, final design, executive design, safety coordination during the design phase, and geological report

working group

Sinergo Spa (group leader responsabile dell'integrazione delle prestazioni specialistiche). Mide architetti (architecture project)

## Re Palazzo Bocca Tri

Verona 2019- on going

client Comune di Verona

work amount 8.300.000 €

activities carried out final design

working group Sinergo Spa (group leader), AcMe, Jurina e Radaelli, ROMA Consorzio

## Self-Generation Energy System for the Vertical Farm Facility Cavenago di Brianza

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2019-2020

client Planet Farms

work amount 2.263.000 €

activities carried out

technical and economic feasibility study, final design, epc (engineering, procurement, and construction) contract assistance, and esco (energy service company) assistance

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The Sinergo Workgroup at the Martellago Headquarters



## Sustainability

### Quality, Safety, and Environment

- since 2021, we have adopted an Integrated Quality, Safety, and Environment Management System (QSE) certified in accordance with international standards: UNI EN ISO 9001:2015 UNI ISO 45001:2018 UNI EN ISO 14001:2015

The QSE system enables us to best meet the requirements for the services offered to clients while maintaining compliance with technical, technological, and commercial obligations. The system aims at continuous improvement of services and operational processes, risk management for the health and safety of workers and collaborators, and an approach to minimize direct and indirect environmental impacts.

The use of clean energy from renewable and sustainable sources, as proposed in projects developed by Sinergo, is implemented within the company headquarters, bringing significant benefits to the working environment for our staff. Special attention is given to the company's environmental impact through the use of a photovoltaic system and a geothermal heat pump, contributing to reducing emissions into the atmosphere. This choice enables the generation of clean energy and reduces the company's carbon footprint, demonstrating a responsible approach to corporate management, aimed at preserving

the environment for future generations.

The production coordinator plays an organizational and managerial role in general, planning production, overseeing and coordinating the human resources involved, and ensuring timely deliveries. This role allows us to assess workflow efficiency and make necessary corrections, following the guidelines and strategies developed by the General Management. 13

Simone Ochs, Production Coordinator and SGI Manager





## Integrated Design Architecture

the new primary school of Castello di Godego

Francesca Cremasco, head of the Architecture Department



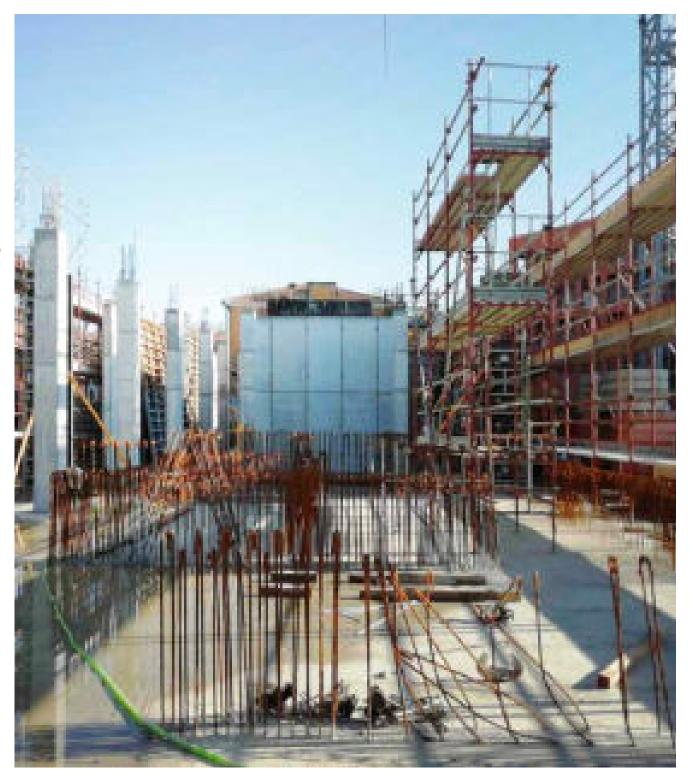
In the 1960s, Pier Luigi Nervi likened the architect's profession to that of a "super orchestra conductor" - a job that "must be carried out by a person with enough knowledge to understand and lead all specialists." In the construction of a building, the formal and functional result is always ensured by the correct harmonization, through careful coordination, of program requirements, economic, technological, and regulatory conditions. Without forgetting our origin as an engineering company - in fact, leveraging the wealth of expertise we possess in the technological analysis of projects - we are involved in integrated projects, which we realize through a multidisciplinary group that, thanks to BIM, works to give complete form to complex architectures.

New buildings - for years, we have been participating in design competitions and tenders, either independently or in collaboration with other studios. Among the most recent projects developed for public clients, notable ones include the elementary school in Castello di Godego, institutional premises for the Carabinieri in Montereale and Serravalle, and for the Guardia di Finanza in Fidenza and Bologna, and the VIP area of the Casino di Venezia in Ca' Noghera. Currently, we are engaged in the expansion of the Parolini Agricultural Institute in the olive grove basin in Bassano del Grappa - with Mide - and in the judicial offices of Palazzo Carcano in Trani - with DEMOGO.

## Interventions on monumental

assets - among the projects we handle, particularly significant are interventions for the enhancement and Renovation of historical buildings. In this area, we have important references: the design of the Conservatorio Steffani headquarters in the former Servite cloister in Castelfranco Veneto (with Struttura and Cavina Terra), the redevelopment of Palazzo Bocca Trezza in Verona (with ACME studio and Studio Jurina), the premises of the Revenue Agency in the former Jesuit college and the former Servite convent in Belluno (with Struttura and Mario Spinelli). For the implementation of HBIM in the field of historical construction, we are collaborating with Politecnico di Milano and the University of Padua.

Intervention planning - for years, we have been collaborating with Public Administration in the planning and development of new interventions - particularly assisting in the presentation of technicaleconomic feasibility projects to obtain funding - through ministerial funds, European funds, and GSE financing. The strength of our work lies in the ability to provide, from the preliminary phase, a careful economic and functional framework for interventions, based on a crossanalysis of the main technological and regulatory themes.



## Integrated Design Structure

The construction site of Bertarini Barracks in Bologna

Marco Brugnerotto, technical director and head of the structures and infrastructure works department



We offer our clients thirty years of experience in the design of structures for civil and industrial buildings, as well as infrastructures.

### **Civil and Industrial Constructions**

- We have a team of designers that handles both new structures and the Renovation and adaptation of existing buildings, including heritage sites. Our structural engineering group collaborates with accredited architecture studios nationally and internationally, as well as with our in-house team of architects. Our experience in new structures includes projects in the public sector, such as buildings for education and public administration, as well as in the private sector, with large-scale projects for the industry and logistics sectors.

Analysis and Assessment of Existing Structures - In the field of seismic verification and retrofitting of existing strategic and significant buildings, we have experience in interventions on hundreds of school and healthcare buildings. In this field, we assist public administrations and entities in the preliminary analysis of existing buildings, planning and conducting material investigations and seismic assessments, and defining seismic and energy retrofit interventions.

Artistic Works and Infrastructures

- In the infrastructure sector, we work on projects for individual structures as well as within framework agreements with major public-owned companies. Notable recent projects include the bridge on the A4 highway at the Padova Est interchange and the movable railway bridge in the west industrial canal dock in Porto Marghera.

One significant ongoing **framework agreement** involves ANAS, for the extraordinary maintenance of artistic works on the road network in the Veneto, Friuli, and Emilia Romagna regions. For RFI (Italian Railway Network), Sinergo has been involved since 2018 in an extensive campaign of seismic verification and retrofitting activities for large railway infrastructures and, since 2019, in projects related to the retrofitting of railway stations in Campania and Puglia.

## Integrated Design MEP and energy

Carlo Laurenti, head of the Electrical Systems Department



Giovanni Moreschini, head of the Mechanical Systems Department



MEP (Mechanical, Electrical, and Plumbing) - Buildings are responsible for over 40% of global energy consumption; recent research indicates that about 75% of civil constructions consume excess energy. Therefore, energy efficiency, along with proper management and maintenance plans, is crucial for the success of a project.

We are committed to implementing intelligent systems that optimize natural ventilation, geothermal energy, and solar light. Within our team, we have mechanical and electrical designers, fire safety technicians, and experts in Energy Management Systems (EGE) according to the UNI CEI 11339 standard.

Energy Diagnostics - We conduct energy analysis and diagnostics for industrial and civil activities. We intervene especially in systems that produce or use water, thermal vectors, compressed air, electricity, natural gas, and fuels - but we also analyze building performance. By analyzing consumption through historical data provided by clients and utilities or on-site measurements - we can develop energy models and define consumption indices to monitor. With this type of diagnosis, we conduct feasibility studies with the most advanced technologies on the market, including Business Plans that analyze the lifecycle of the works. This way, we assess the economic feasibility of the investment, not only regarding initial capital but also considering expected costs/benefits over the period of use.

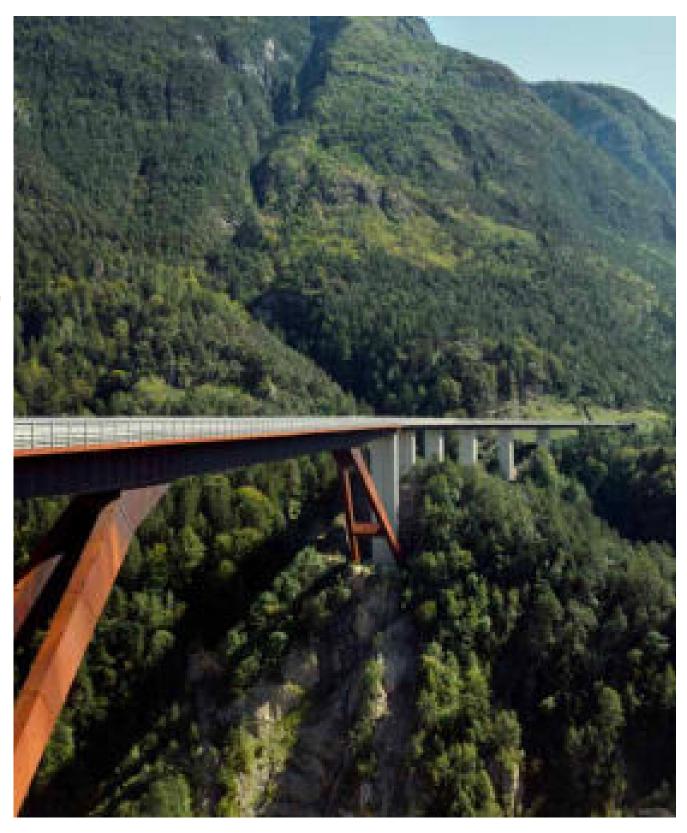
Energy Management - In industrial activities, controlling energy management and production costs is fundamental. In this field, we provide services for analyzing energy costs and consumption, monitoring business trends. We have gained a decadelong experience in managing relationships with energy and gas distributors and suppliers, as well as national authorities like the Electricity and Gas Authority and the Customs Agency. Careful monitoring of the energy market allows us to initiate procurement campaigns with tenders among major suppliers, where we not only align technical and economic aspects of offers but also compare contractual conditions - such as guarantees, expected maximum/minimum consumption, penalties.

In industries, energy needs can be met through energy selfproduction - in this field, we handle the technical and administrative management of both traditional and renewable energy plants.

underground Station on the Favaro-Marghera Tram Line within Mestre **Railway Station** 

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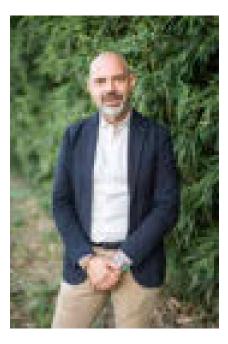
## sınergo



## Infrastructure and mobility

Ponte Cadore (BL) | Photo by © Giovanni Cecchinato

Marco Fardin, head of the Infrastructure Department



Airport Infrastructures - Since 2015, we have been involved in a wide range of airport projects. We develop projects for airports in Venice, Bologna, Milan Malpensa, Palermo, Treviso, Verona, and Rome, both in airside areas related to runways and in landside areas associated with terminals.

**Road Design** - In infrastructure projects, we work on various scales, from resolving local road intersections to designing major arteries within vast areas. Notable projects include the development of SR 10, connecting S.S. 434 to S.S. 16 (with Prolter), the bypass road between Resana and Castelfranco, the Genoa airport junction, and the Padova Est exit on the A4 highway. Since 2017, we have been following

Venice → Marco Polo Treviso → Antonio Canova Verona-Villafranca → Valerio Catullo Brescia-Montichiari → Gabriele D'Annunzio Bergamo-Orio al Serio → II Caravaggio Milan-Malpensa Bologna → Guglielmo Marconi Palermo-Punta Raisi → Falcone Borsellino Rome-Fiumicino → Leonardo Da Vinci Rome-Ciampino → Giovan Battista Pastine Cuneo-Levaldigi → Langhe and Alps of the Sea Airport Turin-Caselle → Sandro Pertini Trapani Birgi → Vincenzo Florio Airport

two Framework Agreements with ANAS Nord Ovest in Valle d'Aosta, Piemonte, Liguria, Lombardia, and Toscana for road infrastructure development.

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### Lighting, Drainage Systems, and Sound Barriers - Lighting,

drainage systems, and sound barriers determine the functionality and efficiency of infrastructure projects, defining their impact on the surrounding area. That's why in this field, too, we adopt a design approach that integrates systems engineering with architectural, structural, and geotechnical solutions.

## sınergo



## Energy transition

🗲 Wind Farm in Buseto Palizzolo (TP)

Enrico Cossalter, head of the Renewable Energy Department



Ever since the establishment of Sinergo as a joint-stock company, we have relied on a specialized team for the development of initiatives for ecological and energy transition. This includes the production of energy from medium and large-scale renewable sources (photovoltaic, wind, hydroelectric, biogas, biomass, biomethane, thermodynamic solar), district heating, public and private electric mobility, energy efficiency for civil constructions and industrial activities, cogeneration, and trigeneration.

Among the key projects managed in recent years are: the tracking photovoltaic plant in Castelguglielmo (5.6 MW, 2011-2014), the wind parks in Calice Ligure (2 MW, 2011-2013), Armo (5 MW, 2009-2012), Buseto Palizzolo (22 MW, 2014-17), Rosario (6 MW, 2018-2021), hydroelectric power plants on the Canal dei Dottori in Monfalcone (0.55 MW, 2009), and on the Tanaro River in Castello d'Annone (1 MW, 2014-2015).

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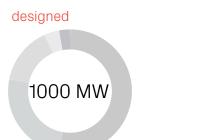
Over the years, we have developed district heating projects: for the biomass thermoelectric power plant and the network in Asiago (1 MWe, 10 MWt, 2014), and for the networks serving the municipalities of Schio (VI) and Forni di Sotto (UD).

In the airport sector, we are overseeing the first photovoltaic field interventions in airside areas for Fiumicino Airport in Rome and Bologna Airport.

implemented

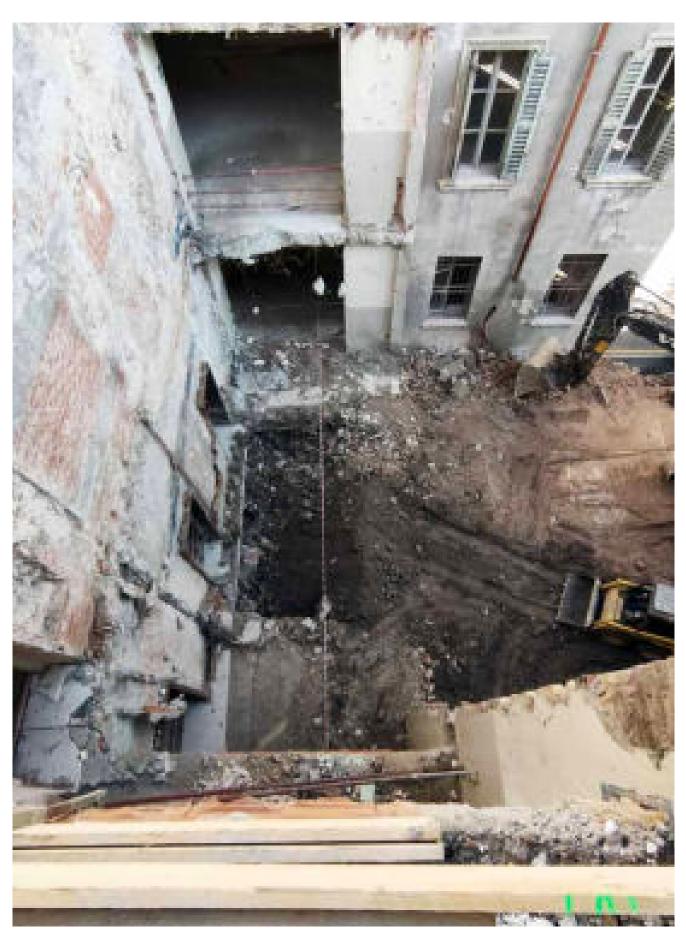
200 MW







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# Project and construction management

the construction site of Palazzo Bocca Trezza in Verona

Marco Pace, Technical Director and Project Manager



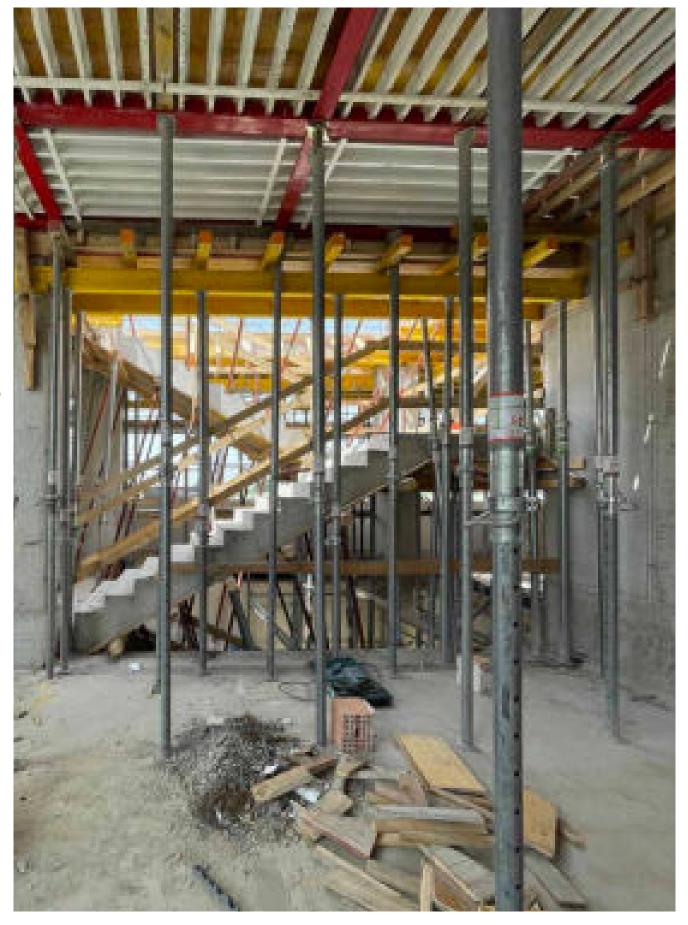
We provide our clients with multidisciplinary expertise and extensive experience in project management and construction. Through our Project Managers, we offer comprehensive planning, coordination, and process control services, both in the design and execution phases.

Our approach is based on close collaboration with the client, understanding their goals and requirements. The strength of our work lies in our ability to meet shared deadlines and budgets, ensuring a high level of service quality and a constant focus on safety, environmental sustainability, and energy performance.

In this context, we handle the monitoring and acquisition of the necessary authorizations to commence the construction process. Contract management with the contracting company is meticulously handled to ensure an efficient workflow and proper execution of the works. Throughout the process, we keep the client informed with regular reports, providing a clear view of project progress. Additionally, we ensure the proper execution of interventions, offering further peace of mind regarding the progress of the works.

Among our notable references in this field is our recent coordination work for the design and construction of the Gibus headquarters in Teolo (PD), designed by DEMOGO, for the project of Teatro Verdi in Terni, designed by AMAA, for the Renovation of Palazzo Bocca Trezza in Verona, in collaboration with ACME studio and Studio Jurina, the intensive care units at Dolo Hospital, and Caserma Bertarini in Bologna.

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## Health and Safety Coordination

The construction site of the Emergency Room in Dolo (VE).

Stefano Muffato, Technical Director and Safety Manager

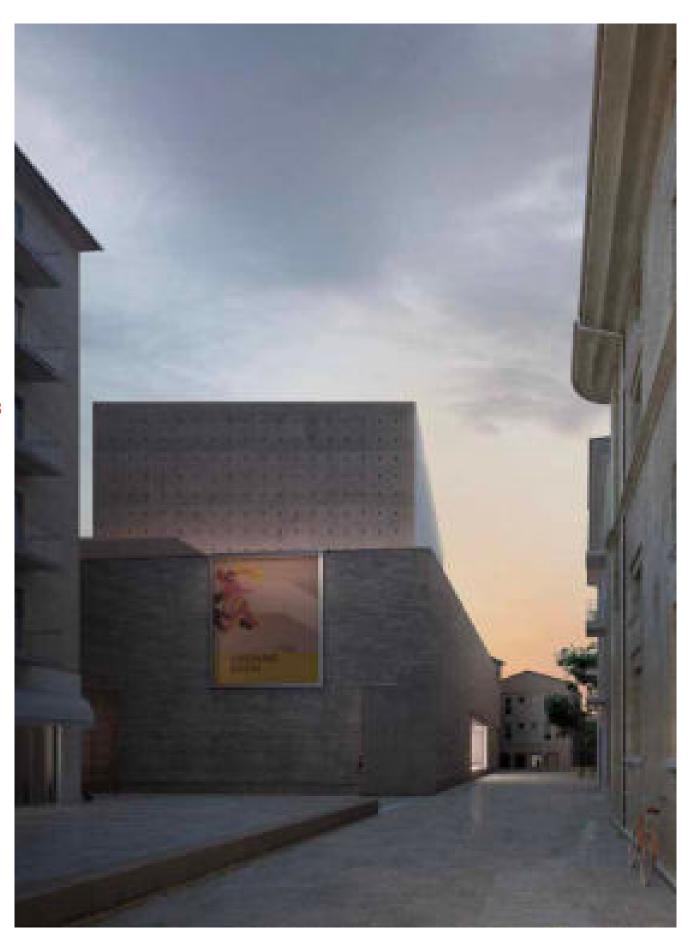


Safety management is a fundamental element in construction site management. Safety planning requires careful scheduling, detailed risk analysis, and constant monitoring to ensure the safety of those working on construction sites. Through safety coordination activities, we ensure that every phase of the project is carried out safely and in compliance with the law.

That's why our site management office is supported by specialists specifically dedicated to safety coordination. In addition to drafting safety plans during the design phase, they oversee safety coordination during the execution of works. By combining these diverse skills, we provide our clients with a versatile team that respects safety while ensuring the quality control of the various technological components of a project. This flexibility is possible due to our wellorganized Integrated Quality, Safety, and Environmental Management System.

Some of our notable references in this field include safety coordination activities carried out in the healthcare sector for the Emergency Room in Dolo, in the airport sector for various interventions at Marco Polo Airport in Venice on the terminal and runways, in the tertiary sector for the construction of the offices of the Guardia di Finanza in Caserma Bertarini in Bologna, and the offices of the Ministry of Finance in the cloister of the Serviti and the former Jesuit college in Belluno. 27

## sınergo



## Tenders and Competitions

The project for Teatro Verdi in Terni by AMAA (lead firm) and Sinergo.

Sara Calisti, administrative Manager of the Tender Office



"A wide-ranging portfolio of completed and planned projects, coupled with a multidisciplinary team of designers working on public commission, allows us to participate in major Italian tenders and design competitions. A dedicated team analyzes and selects tender notices and verifies the necessary technical and administrative requirements. Thanks to this team, which operates under the coordination of the technical department, addressing technical, legal, and administrative aspects, we participate in over 100 tenders annually, both as sole competitors and within teams of designers.

Within the framework of two-phase design competitions, we have received numerous accolades. collaborating with some of Italy's most promising architectural firms. Among them, we secured first place for the expansion of the Teatro Verdi in Terni (2020-22 - with AMAA), for the Flaminio Civic Center in Rome (2020 - with AMAA and Demogo), for the design of the new courthouse in Trani (2022 - with DEMOGO), for the redevelopment of the Ex Ópera Nazionale Combattenti in Latina (2022 - with Giampaolo Mazzon), and the Saint-Bènin boarding school in Aosta (2022 - with Caveja Studio, Mare Architetti, and Am.Sa).

Design Tenders - within the framework of procedures based on the most economically advantageous tender, we have achieved significant results since 2018. In the field of public building design, we have been awarded the design and construction management for the expansion of the Bertarini Barracks in Bologna (2018 - ongoing - with Demogo), for the conservatory headquarters in Castelfranco Veneto (2019 ongoing - with Struttura, Cavina Terra, and Tosato Ingegneria), for the redevelopment of the former Tasso Barracks and the financial offices in Belluno (2021 - ongoing - with Struttura and Mario Spinelli), for the Renovation of the seventeenthcentury Palazzo Bocca Trezza in Verona (2019 - ongoing - with AcME and Jurina+Radaelli), for the design of the new Parolini Agricultural Institute in Bassano (2021 - ongoing - with MIDE).

### Framework Agreements -

among the proposals submitted under multi-year framework agreements, we have secured several agreements on Save's commission (for the Marco Polo Airport in Venice), RFI, ANAS, and the Italian State Mint and Polygraphic Institute."

## Tenders and competition Awards



## 30 Ex Opera Nazionale Balilla

Latina 2022 First place

process two-phase competition

client Comune di Latina

working group Giampaolo Mazzon (group leader), Sinergo Spa



## Polo Civico di Flaminio

Roma 2020 First place

process two-phase competition

contracting authority Roma Capitale

working group AMAA (group leader), Demogo, Sinergo Spa



## Teatro dell'Opera Giuseppe Verdi

Terni 2020 First place

process two-phase competition

contracting authority Comune di Terni

working group AMAA (group leader), Sinergo, Linda Parati



Judicial Offices and Archaeological Museum of Palazzo Carcano

Trani 2022 First place

process two-phase competition

client Agenzia del Demanio

working group Sinergo Spa (group leader), Demogo

## sınergo



## Projects

33

## Highlighted projects



## Pivoting Railway Bridge over the West Industrial Canal of Porto Marghera

Porto Marghera (VE) 2018 - on going

client

APV Autorità di Sistema Portuale del Mare Adriatico Settentrionale di Venezia

work amount 19.900.000,00 €

activities carried out technical-economic feasibility project, final, executive, safety coordination and geological report

credits Carlos Fernandez Casado (coprogettista strutturale), Antonio Martinez



## Headquarters and offices of Gibus Spa

Teolo (PD) 2021 - on going

client Gibus Spa

work amount 33.851.000,00 €

activities carried out final project ed executive systems and structural, safety coordination in the design phase

credits DEMOGO (architecture project)



Framework Agreement for Extraordinary Maintenance Interventions on Bridges, Viaducts, Tunnels

Veneto, Emilia Romagna, Friuli VG 2021-2022

## client

ANAS Spa

\_

work amount

activities carried out executive project

working group Sinergo (group leader), SEPI, AZ, D'Agostini



## Renovation of Palazzo Ancilotto 35

Treviso 2018 - 2019

client 21 Invest

work amount riservato

activities carried out final project electrical and mechanical systems

### working group

David Chipperfield Architects (group leader), Yard Spa, Tre Erre Ingegneria, TA Srl, Sinergo Spa

## Giuseppe Verdi Opera House

Terni 2020 - on going

client Comune di Terni

work amount 17.608.000 €

### activities carried out

technical-economic feasibility project, final project, safety coordination in the design phase and geological report

### executive project (initial section)

### working group

AMAA (group leader), Sinergo Spa, Vincendo Baccan





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## Bertarini Barracks

Bologna 2018 - 2023

client Agenzia del Demanio di Bologna

work amount 5.586.000 €

activities carried out BIM, final project ed executive integrated, project management and safety coordination

working group DEMOGO (co-progettisti architettonici)

## Casinò VIP

Ca' Noghera (VE) 2018 - 2019

client Casinò di Venezia Gioco Spa

work amount 4.500.000 €

activities carried out final project and integrated

working group Sinergo Spa, Enrico Dusi, Matteo Ghidoni



## Baggage Handling System

Venezia 2017 - 2018

client SAVE Spa

work amount 8.278.000 €

activities carried out

final project, executive project, safety coordination, project management



## Renovation ex-Tribunale di Treviso

### Treviso

2015 - 2016

### client

Cev Spa

work amount 14.100.000 €

activities carried out executive project architecture and systems

### credits

arch. G. Trabucco (prog. arch. e di restauro def.), arch. T. Scarpa (dir. artistica), SOGEN (prog. def. structure), Studio Lagrecacolonna (prog. def. systems), P. Montero (prog. allestimento), SPC+ing. Turrini (prog. executive structure), JACOBS (D.L.)



37

## Wind farm of 22 MW

Buseto Palizzolo, Trapani 2013 - 2017

client Parco Eolico Buseto Srl

work amount 10.504.000 €

activities carried out

final project, Instructions for network connection procedures and easement of power line, project for the expansion of Terna's substation and Primary Cabin shared by Enel/User project management, safety coordination

# Integrated design Existing building recovery



## **38** Renovation of the former Tobacco Factory in Venice

Venezia 2022 - on going

Client Comune di Venezia

Work amount 31.000.000 €

activities carried out final project of systems and geological report

#### working group

ICIS (group leader), Isolarchitetti e Rafael Moneo (architecture project), Sinergo (progetto systems), GAE Engineering (progetto fire protection), Studio Ossola (structural project)



### Renovation of the Former Saint-Bénin Priory

Aosta 2021 - on going

Client Comune di Aosta

Work amount 8.517.000 €

activities carried out technical and economic feasibility study, final, executive and geological report

#### working group

Caveja Studio (group leader), MARE architetti (architecture project), Sinergo (structural project e systems), AM.SA (CSP, fire protection, acustica)



### Redevelopment of Bertoni University House

Milano 2020 - on going

Client Fondazione La Vincenziana

Work amount 2.500.000 €

activities carried out systems project, technical and economic feasibility study and final

#### working group

Fon architetti (group leader progettista architettonico), T14 Associati (structural project), Sinergo (progetto systems



## Renovation of the Former Jesuit Boarding School in Belluno

Belluno 2020 - on going

client Agenzia del Demanio

Work amount 7.372.000 €

activities carried out BIM, final project ed executive, safety coordination and geological report

working group Sinergo Spa (group leader), Mario Spinelli, Struttura Srl, Seres, Sinthesi eng



## Financial Offices in the Servite Convent in Belluno

39

Belluno 2020 - on going

client Agenzia del Demanio

Work amount 4.700.000 €

activities carried out BIM, technical and economic feasibility study, final project and executive, safety coordination

working group Sinergo Spa (group leader), Mario Spinelli, Struttura Srl, NEIDE srl, Matteo Collareda, Sinthesi eng



# 40 Renovation of Villa Sorra

Castelfranco Emilia 2020 - on going

Client Comune di Castelfranco Emilia

Work amount 4.217.000 €

activities carried out systems final and executive project

working group Cavina Terra Architetti (group leader), Sinergo Spa, Jurina e Radaelli



### Renovation of Ex Reginato Barracks

Udine 2021 - 2023

client Agenzia del Demanio

Work amount 1.262.324,07 €

activities carried out final project and executive project





#### Restyling of Giureconsulti palace

Milano 2019 - 2022

client Camera di Commercio Milano e Monza-Brianza

Work amount 1.000.000 €

activities carried out structural project e systems final and executive, safety coordination

working group MAR Office (group leader), Sinergo, Daniela Mannina

#### Renovation of Palazzo Borgazzi.

Milano 2017 - 2018

client

Edizione Srl

Work amount 1.000.000 €

activities carried out executive project, CSP and CSE, Project management



#### **Biblioteca VEZ Junior**

Mestre 2014 - 2015

client CEV Spa per il Comune di Venezia

Work amount 1.000.000 €

activities carried out executive project





# 42 Patriarchal Seminary of Venice

Mestre 2008

client Seminario Patriarcale

Work amount 7.250.000 €

activities carried out final project systems, project management systems

credits

Stefano Battaglia (architecture project)

### Steffani Conservatory

Castelfranco Veneto (TV) 2018 - on going

Client Comune di Castelfranco Veneto

Work amount 7.100.000 €

activities carried out technical-economic feasibility project, final project

credits

Struttura Srl (Structure), Cavina Terra architetti associati (Restauro)

# Integrated design School building



### Alberto Parolini Agricultural Institute

Bassano del Grappa 2021 - on going

client Provincia di Vicenza

work amount 6.000.000 €

activities carried out technical-economic feasibility project, final, executive, safety coordination in the design

phase and geological report

working group

Sinergo Spa (group leader responsabile dell'integrazione delle prestazioni spacialistiche), Mide architetti (architecture project)



### Teolo Municipality School Complex

Teolo (PD) 2019 - 2022

client

Comune di Teolo

work amount 2.404.000 €

activities carried out

technical-economic feasibility project, final, executive, (initial section)



## Eugenio Montale Classical High School

43

San Donà di Piave 2020 - 2022

client Città Metropolitana di Venezia

work amount 3.905.000 €

activities carried out final and executive project, electrical systems, mechanical and fire protection

working group Planum Srl (group leader), Sinergo Spa





# 44 Temporary Classrooms for Ca' Foscari

Venezia 2016 - 2018

Client Università Ca' Foscari

Work amount 1.500.000 €

activities carried out final project ed executive systems, project management systems

credits Barman Architects (architecture project)

### Giuseppina Bianco Elementary School

Castello di Godego (TV) 2016-2020

Client Comune di Castello di Godego

Work amount 2.890.000 €

activities carried out executive integrated project; CSP; project management and safety coordination in execution phase

## Integrated design Sanità



## Community Hub of Mestre

Mestre (VE) 2022 - on going

client ULSS 3 Serenissima

work amount 5.521.246 €

activities carried out technical and economic feasibility study



## Community Hub of Codroipo

Codroipo (UD) 2023 - on going

client Azienda Sanitaria Universitaria Friuli Centrale

work amount 5.740.000 €

activities carried out final project and executive



## Community Hub of Laives

Laives (BZ) 2023 - on going

client Azienda Sanitaria dell'Alto Adige

work amount 11.296.000 €

activities carried out technical and economic feasibility study, final project and executive

credits Sap Società Archeologica srl, Arch. Marina Albertoni





## Magnetic Resonance Imaging at Rovereto Hospital

Rovereto (TN) 2020

#### client

46

Azienda Provinciale per i Servizi Sanitari della Provincia Autonoma di Trento

work amount 763.000 €

activities carried out progetto, project management

working group Sinergo (group leader), Artecno (mandante)

### New emergency department of the Dolo hospital Dolo (VE)

2019-2020

client USSL 3 Serenissima

work amount 5.032.000 €

activities carried out project management, CSE and project of variant report

working group Marco Rizzoli (group leader) Direttore dei Lavori



Healthcare expansion and renovation of the Piove di Sacco hospital Piove di Sacco (PD)

2021 - on going

client Ulss 6 Euganea

work amount 30.400.000 €

activities carried out technical-economic feasibility project, safety coordination in the design phase



## Rosa dei Venti Assisted Living Facility

Trento 2019-on going

client E.S.Co. BIM e Comuni del Chiese

work amount 1.153.000 €

activities carried out final project and executive, safety coordination in the design phase

# Integrated design Public buildings and tertiary





### 48

Judiciary offices and archaeological museum in Palazzo Carcano Trani 2022- on going client Agenzia del Demanio

work amount 9.000.000 €

activities carried out

technical-economic feasibility project, final, executive

working group

Sinergo (group leader), Demogo (architecture project), Emma Capurso (archeologia)

#### Ruffoni Apartment Complex

Arzignano (VI) 2017- on going

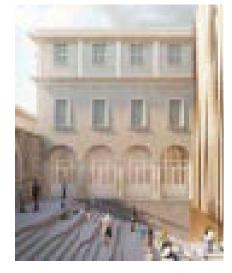
#### client

Privato

work amount 2.000.000 €

activities carried out structural project and systems

credits AMAA (architecture project)



### Renovation of Palazzo Bocca Trezza

Verona 2019- on going

client Comune di Verona

work amount 8.676.000 €

activities carried out BIM, final project, executive

working group Sinergo Spa (group leader), AcMe, Jurina e Radaelli, ROMA Consorzio





### Galleria d'arte Atipografia

Arzignano (VI) 2020 - 2022

client Atipografia

work amount 2.000.000 €

activities carried out progetto fire protection

credits AMAA (architecture project)

## Riqualificazione dei padiglioni storici della fiera di Padova

Padova 2015-2016

client

Comune di Padova

work amount 2.400.000 €

activities carried out executive project

## Integrated design Barracks





50

## Carabinieri Station of Verghereto Verghereto (FC)

### 2019

#### client

Agenzia del Demanio dell'Emilia-Romagna

#### work amount 3.355.000 €

activities carried out BIM, final project, executive, safety coordination in the design phase and geological report

working group Abacus (group leader), Sinergo Spa, Demogo

### Command of the local police of the Fiera district of Milan Milano

#### 2020

client

-

# City Life Srl

work amount

#### activities carried out

working group Contec (group leader), Openbuilding, Sinergo Spa



# Carabinieri Station of Montereale

Montereale, L'Aquila 2019- on going

#### client

Agenzia del Demanio dell'Abruzzo e Molise

work amount 2.631.000 €

#### activities carried out BIM, final project integrated e safety coordination in the design phase

working group Sinergo (group leader), Demogo, Abacus Progetti, Studio Geologi Associati



### Tenenza of the Guardia di Finanza of Fidenza

Fidenza, Reggio Emilia 2020

client

Agenzia del Demanio dell'Emilia-Romagna

work amount 2.473.000 €

activities carried out BIM, final project, executive project, safety management in the design phase

working group Sinergo Spa (group leader), Openbuilding Srl, arch. Elisa Sirombo, Matteo Collareda, Semper Srl



## Carabinieri Station of Serravalle

51

Serravalle (MC) 2020 - on going

client Agenzia del Demanio delle Marche

work amount 2.160.000 €

activities carried out BIM, final project integrated and safety coordination in the design phase

working group Sinergo (group leader), Demogo, Abacus Progetti

# Integrated design Public spaces



# 52 Sant'Agostino Squares System

Sant'Agostino (FE) 2017 - 2020

Client Unione Comuni Terre del Reno

Work amount 1.229.000 €

activities carried out final project ed executive, Project management and Safety coordination

credits con Enrico Dusi (architecture project)



#### Motta Square

Pordenone 2018 - 2020

Client Comune di Pordenone

Work amount 2.228.000 €

activities carried out progetto systems final ed executive, Project management, CSP

working group Stradivarie Architetti Associati (group leader progettista architettonico)

# Integrated design Logistica, commercio, industria



# New commercial complex with underground parking

Venezia Mestre 2012-2015

client Mestre Sviluppo Srl

work amount riservato

activities carried out

final project and executive systems for electrical, mechanical, fire protection, application for approval, preliminary conformity opinion, fire protection, and fire prevention certificate



# Expansion of Mionetto Winery Cellars

Valdobbiadene 2017- on going

#### client MIONETTO Spa

work amount 7.500.00 €

activities carried out executive project (architecture, structure)

credits Quiet Architecture (final project)



53

### Geox Factory

Vranje, Serbia 2013-2014

client Geox Respira Spa

work amount 11.000.000 €

activities carried out

Final project and executive for roadways and structural, project management assistance

credits

DESIGNGROUP Architetti (architecture project), STI Engineering (progetto systems)

## Infrastructure and mobility Airports





## 54 Check-in area at Marco Polo Airport

Venezia 2014 - 2017

client SAVE Spa

work amount 4.500.000 €

activities carried out Final design and execution of civil works, structures, and systems, project management, safety coordination during the execution phase

### Baggage Handling System (BHS) for Falcone and Borsellino Airport

Punta Raisi, Palermo 2020 - 2021

client

Gesap Spa

work amount 8.374.000 €

activities carried out Feasibility Study, Executive Project, Safety Coordination in the Design Phase



### Medium Voltage Ring at Marco Polo Airport

Venezia 2020 - on going

client SAVE Spa

work amount 2.183.242 €

activities carried out Final Project and Safety Coordination in the Design Phase



## AVL Lighting Systems for Valerio Catullo Airport Runways

Verona 2019 - on going

client Verona Aeroporto Spa

work amount 7.341.000 €

activities carried out Final Project, Executive, Safety Coordination During Execution, Project Management



### BHS System for Guglielmo Marconi Airport

Bologna 2018 - 2020

client Aeroporto di Bologna Spa

work amount 1.250.000 €

activities carried out project management



## Fire Brigade Barracks at Verona Villafranca Airport

55

Verona 2018 - on going

client Verona Brescia - Garda

work amount 7.373.000,00 €

activities carried out technical and economic feasibility study, executive project (systems e structure)

credits

Tecno Engineering 2c (architecture project)



# 56 Gateway DHL Malpensa

Milano 2015 - 2021

client DHL

work amount 28.960.000 €

activities carried out technical and economic feasibility study, final, executive structures and systems

credits Progetto CMR (architecture project)



# Gateway DHL di Bologna

Bologna 2015- 2022

client DHL

work amount 8.200.000 €

activities carried out technical and economic feasibility study, final, executive structures and systems

credits Progetto CMR (architecture project)

## Infrastructure e mobilità Strade



### Biciplan Metropolitan City of Bologna

Emilia Romagna 2021 - on going

Client Città Metropolitana di Bologna

Work amount

activities carried out structural project

working group Stradivarie Architetti Associati (Group Ieader), Fahre



Feasibility Study for the Redevelopment of SS 13 and SR56

Friuli Venezia Giulia

2016

Client

Regione autonoma Friuli VG

Work amount 158.307.000 €

activities carried out technical-economic feasibility project

working group Stradivarie Architetti Associati (Group leader)



# Palmanova Junction and Variant to SR 352 in Grado

57

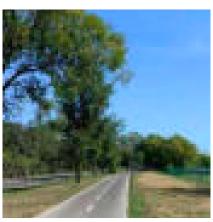
Friuli Venezia Giulia 2012 - 2015

Client Autovie Venete Spa

Work amount 7.859.000 €

activities carried out executive project





#### Bike path in Bibione

Bibione (VE) 2018 - 2020

Client Comune di San Michele al Tagliamento

Work amount 2.800.000 €

activities carried out executive project systems e plumber, project management

working group Stradivarie Architetti Associati (group leader progettista architettonico e DL)



а

### Cycle tourism routes of ASTER Friulian Tourist Riviera

Riviera turistica friulana 2013 - on going

Client Comune di Lignano Sabbiadoro

Work amount 3.513.065 €

activities carried out technical and economic feasibility study, final project, executive and safety coordination

working group Albertin & Company (group leader)

58

## Santo Cycle Path

Resana (TV) 2018 - 2020

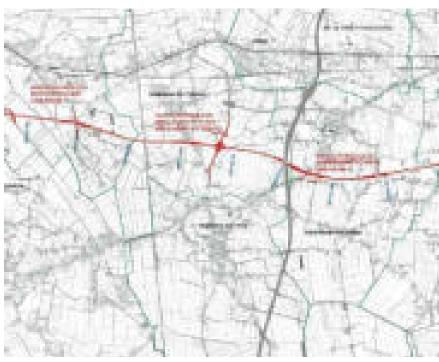
Client Comune di Resana

Work amount 990.000 €

activities carried out technical-economic feasibility project, final project ed executive, CSP, CSE, DL

working group Stradivarie Architetti Associati (group leader progettista architettonico)





#### Padua Interport

Padova 2020 - on going

nd

client Interporto di Padova Spa

work amount riservato

activities carried out technical and economic feasibility study, permit applications, final project, administrative process management, safety coordination in the design phase

## SR 10 Lower Padana Road

Veneto 2021-2022

client

Veneto Strade

work amount 165.000.000 €

activities carried out final project and executive

working group Prolter (group leader)



60 Railway swing bridge over the industrial canal west of Porto Marghera

Porto Marghera (VE) 2018 - on going

#### client

APV Autorità di Sistema Portuale del Mare Adriatico Settentrionale di Venezia

work amount 19.900.000,00 €

activities carried out

technical-economic feasibility project, final, executive, safety coordination and geological report

credits Carlos Fernandez Casado (co-progettista

strutturale), Antonio Martinez



Framework Agreement with RFI for interventions on stations in Puglia and Campania 2020- on going

#### client

RFI

work amount

activities carried out final project and executive

working group RTP con group leader Quality Engineering



# Urban road connection and Genoa airport exit

Genova 2016-2019

client Delta lavori Spa + Zara Metalmeccanica

work amount 11.212.000,00 €

activities carried out Executive project for the variant to implement improvements proposed during the bidding phase

# Energy transition Systems solari CSP e fotovoltaici



### Concentrated Solar Thermal Power Plant with a capacity of 12 MWe

Roccazzelle Gela, Caltanisetta 2009-2012

client Reflex Solar Power Srl

work amount 70.000.000 €

activities carried out final project for single authorization, 132/20 kV substation project, and user cabin

credits arch. Italo Rota (architecture project)



# 5.6 MW solar tracking photovoltaic system

Castelguglielmo, Rovigo 2011-2014

client ESE Castelguglielmo

work amount 13.800.000 €

activities carried out final project for obtaining single authorization and project management



## Solar park in Casei Gerola, 4.54 MW

61

Pavia, Lombardia 2022-2023

client STE energy Enel Green Power

work amount

activities carried out Civil works executive project





62 20MW Photovoltaic System North Airside G. Marconi Airport Bologna Bologna (BO)

2023 - on going

client Aeroporto di Bologna Spa

work amount 47.721.030 €

activities carried out technical and economic feasibility study

11.9 MW Photovoltaic System Runway 3 Leonardo Da Vinci Airport Fiumicino

Fiumicino (RM) 2021 - 2022

client

ADR Ingegneria

work amount 30.010.960 €

activities carried out final project



### 2.8 MW Photovoltaic System Ciampino G. B. Pastine Airport

Ciampino (RM) 2022 - on going

client ADR Ingegneria

work amount 33.084.940 €

activities carried out technical and economic feasibility study

# Energy transition Hydroelectric power plant



### 1.3 MW Hydroelectric Power Plant on the Salzana River

Val Taleggio, Bergamo 2009-2012

#### client Katena Srl

work amount 7.500.000 €

activities carried out executive project, project management, safety management in the design phase and execution



## 1.7 MW Hydroelectric Power Plant on the Tanaro River

Castello di Annone, ASTI 2014-2016

#### client Comer Srl

work amount 7.718.000 €

activities carried out Project Management, executive project



# Renovation of a 3.8 MW hydroelectric power plant

Straccis, Gorizia 2003-2008

client Gabel Industria Spa

work amount 4.900.000 €

activities carried out executive project, project management

# Energy transition Wind energy systems



# 64 4 MWe Wind Park in Armo

Armo, Imperia 2009-2012

client Elettrostudio Energia Spa

work amount 366.000 €

#### activities carried out

final project, instruction for the issuance of the single authorization, project management, safety management in the design and execution phases



# 9.51 MWe Wind Farm at Venti di Nurra

Sassari 2010-2012

client Elettrostudio Energia Spa

work amount 10.700.000 €

activities carried out final project



### 6 MW Rosario Wind Farm

Porto Torres, Sassari 2020-2021

client ESE Apricena Srl

work amount 9.000.000 €

activities carried out final project and executive, safety coordination in the design phase, project management

# Energy transition Biomass (wood, liquid, biogas)



## Biogas plant from anaerobic digestion of agricultural biomass and liquid manure, 526 kW

Teglio Veneto, Venezia 2012

client Antica Terra dei Conti Srl

work amount 2.200.000 €

activities carried out project coordination, practical instructions from Enel JAER GSE LITE and Customs

from Enel, IAFR, GSE, UTF, and Customs Agency, Work Execution Safety.



# 7.6 MWe Biomass Power Plant

Portogruaro, Venezia 2008-2011

#### client

Cereal Docks Spa

work amount 12.000.000 €

activities carried out

technical and Economic Feasibility Study, Final and Executive Systems, Design Coordination, Project Management Systems, Instructions for Grid Connection Practices



### Biomass Power Plant with 8 MWe Capacity from Liquid Biomass

65

Palomonte, Salerno 2001-2005

client IGI Srl

work amount 8.000.000 €

activities carried out

Technical and Economic Feasibility Study and Executive Design for Structures and Systems, Project Management, Easements for a 10 km Medium Voltage Power Line

# Energy transition Cogeneration and Trigeneration



# 66 Cogeneration plant using vegetable oil biomass, 1 MWe

Pederobba, Treviso 2010 - 2012

client Laser Industries Srl

work amount 1.000.000 €

activities carried out progetto technical and economic feasibility study e final / Project coordination



### New Trigeneration Plant for Electric and Thermal Energy

Maniago, Pordenone 2020 - on going

client SIAP Gruppo Carraro Spa

work amount 2.000.000 €

activities carried out final project, executive, project management, safety management



# Self-Production Energy Plant for the Vertical Farm

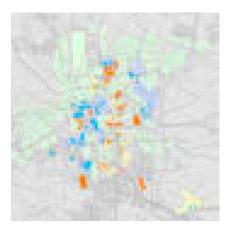
Cavenago di Brianza 2019-2020

client Planet Farms

work amount 2.263.000 €

activities carried out Technical and Economic Feasibility Study, Final Project, EPC and ESCo Contract Assistance

# Energy transition District Heating System



# District Heating System in Asiago

Asiago, Vicenza 2016-2017

client VI.ENERGIA Srl

work amount 3.500.000 €

activities carried out executive project, project management, safety management



### Expansion of the District Heating Network in Schio

Schio, Vicenza 2021 - on going

client Alto Vicentino Ambiente Srl

work amount 1.525.000 €

activities carried out executive project, project management, safety management



## Expansion of the Hot Water District Heating Network

Forni di Sotto, Udine 2022 - on going

client Comuni di Forni di Sotto

work amount 1.300.500 €

activities carried out final project ed executive 67

# Energy transition Thermal systems



# 68 New biomass boiler for Verona floricultural complex

San Giovanni Lupatoto, Verona 2012 - 2013

#### client

CleanPower c/o Azienda Agricola Vitari.

work amount 200.000 €

activities carried out

Technical and economic feasibility study / final design / detailed design / project management / safety management / energy efficiency certificates



#### New biomass boiler for Pozzonovo floricultural complex

Pozzonovo, Padova 2013 - 2014

#### client

CleanPower c/o FAVARO IMER Az. Agricola di Floricoltura

work amount 150.000 €

activities carried out Technical and economic feasibility study / final design / detailed design / project management / safety management / energy efficiency certificates



# New biomass boiler for existing greenhouses in Montagnana

Montagnana, Padova 2014 - 2015

client CleanPower c/o FZonato Diego & Soc. Agr.

work amount 350.000 €

activities carried out

Technical and economic feasibility study / final design / detailed design / project management / safety management / energy efficiency certificates

# Energy transition Electric substations



## Mules Primary Substation

Mules, Bolzano 2015 - 2019

#### client EDYNA Srl

work amount 3.500.000 €

activities carried out

Technical and economic feasibility study and executive project, project management, safety management in the design and execution phases



# Expansion of the primary substation 'Glorenza'

Glorenza, Bolzano 2015 - 2016

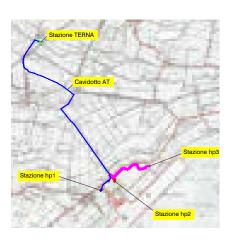
#### client

SELNET GmbH Srl

work amount

-€

activities carried out project management systems electrical / safety management



## New AT 132 KV supply point for Marco Polo Airport

Tessera, Venezia 2017

client Save Engineering Spa

work amount

-€

activities carried out technical-economic feasibility project

# Energy transition Energy efficiency



## 70 Energy audit and efficiency interventions in the injection molding plant Palmanova, Udine 2015 - 2023

client

IFAP Spa

work amount 186.000 €

activities carried out Energy audit / White certificates



# Technological center and UTA for the Orio Center shopping mall

Orio al Serio, Bergamo 2018

client Finser Spa

work amount

riservato

activities carried out Final project and executive, project management and safety coordination



### Electricification works for public transportation on the Lido of Venice and Pellestrina

Lido di Venezia e Pellestrina 2018 - 2019

client AVM Spa

work amount 550.000 €

activities carried out systems project