



**ALESSANDRA
BELLUTTI**

PRODUCT PORTFOLIO MANAGER
MANNI GREEN TECH

OUR VISION FOR BUSINESS

“ For many years

we have leveraged the valuable cross-disciplinary technical expertise of the companies within the entire Group.

This means we are able to support our customers during analysis and development of complete projects.

The off-site construction systems we offer are dedicated to all-round efficiency, including **ease of site management**, high **energy savings** and **certified solutions**, all to support our customers to implement off-site projects faster, more safely and with thorough design.

”



BUSINESS

MANNI GROUP'S TECHNOLOGIES WORK IN SYNERGY WITH EACH OTHER.

THANKS TO THE GROUP'S CROSS-DISCIPLINARY SKILLS, WE OFFER COMPLETE HIGH-PERFORMANCE CONSTRUCTION SOLUTIONS, FROM STRUCTURE TO ENVELOPE TO SMART BUILDING SYSTEMS FOR IMPROVING BUILDING ENERGY EFFICIENCY.

SERVICES FOR THE MECHANICAL AND PLANT ENGINEERING SECTORS ARE ALSO CONSTANTLY EVOLVING.



Manni Sipre provides the most advanced technologies for supporting the customer in every area of steel construction through fully integrated processes. **Its mission is to fully exploit the potential benefits of using steel in terms of environmental, social and economic sustainability in the development of all projects.**

As one of Europe’s largest service centres for pre-processed steel elements, components and structural building systems, Manni Sipre

serves both the retail and contract market, enabling customers to take on international projects of all scales.

An important extension of Manni Sipre’s customer service concept is the **Steelior** division dedicated to the acquisition and management of **finished metalwork** orders, in order to offer a product that is ready to assemble on site with predefined times and costs. This division, thanks to the flexibility of its structure, is capable of handling both small

local orders and complex, world-class orders. Through a single organisation with a proven track record, it delivers a complete solution to designers for managing the integrated process of metal construction, guaranteeing quality and professionalism.

STEEL BUSINESS UNIT

8 DIVISIONS
5 SITES

Verona
Crema
Udine
Ascoli Piceno
Rivoli

SECTORS

- ▶ Logistics
- ▶ Data center
- ▶ Mechanical engineering
- ▶ Structural steelwork
- ▶ Systems for the energy sector
- ▶ Earthmoving
- ▶ Oil and gas plants
- ▶ Shelving systems
- ▶ Automated warehouses
- ▶ Offshore
- ▶ Lightweight and heavyweight building systems

Do it with Manni

Manni Sipre has created a video series that chronicles all the great in-house expertise and know-how, constantly driven towards innovation and investment.

A journey in which you can discover processes and manufacturing, where the common thread remains the principle of off-site building, a constant goal of Manni Group. For its customers, Manni Sipre is not just a supplier, but a strategic partner that enables them to exploit the full potential of steel and implement extraordinary projects all over the world.



Manni Inox operates through two production plants in Verona and several distribution points in Italy.

A European reference for **stainless steel** users, its top-quality products and processes allow customers to work “just in time” with great flexibility and quality. Highly qualified personnel contribute to the growth of niche stainless steel sectors such as **healthcare, food and packaging.**

Infinity Seat

Infinity Seat is a design work conceived by architect Ian Ritchie and installed in two apparently very distant and different locations: inside the Arte Sella open-air museum in Trentino and on the seafront at the municipality of Forio, on the island of Ischia. It is a seat composed of two sinuous S-shaped benches that, when joined together, define the symbol of infinity, representing the twinning of the mountain beauty of Arte Sella and the marine beauty of Ischia. This artistic creation, in fact, connects the two places, both of which are dear to the architect. Recent events have reserved a sadly similar fate for them both: storm Vaia in Valsugana and the landslide on Mount Epomeo in Ischia, extreme climatic situations that invite us to reflect on the impact of humans on nature and how fragile ecosystems are in the face of events of such magnitude. Manni Inox supplied and processed the 10 mm stainless steel sheet that makes up the work free of charge. For this reason, Infinity Seat represents the culmination of a collaboration between Manni Group and Arte Sella, the place within the landscape of the Val di Sella where artists and designers express the synergy between human ingenuity and the natural world through their works. The first work, Scheggia, dates back to 2019: it is the info point for accessing the exhibition route.



© Giacomo Bianchi



Manni Green Tech researches and develops new technologies for **residential, industrial and commercial building projects through integrated solutions.**

The proposals are all based on **Light Steel Frame and structural steel technology** together with a complete range of certified off-site modular products and solutions for the construction of structures and the building envelope.

These construction systems can be used for modular and scalable buildings that meet the architectural and performance requirements of projects of all kinds, including facade renovations.

Thanks to its know-how and many years of experience in steel construction around the world, Manni Green Tech’s engineering division can offer support to designers and companies at all stages of the project:

- ▶ **architectural design**
- ▶ **executive design**
- ▶ **supply of steel structures and all additional systems for the envelope, floors and internal partitions, with sandwich panels, slabs and insulation**
- ▶ **support activities required for the implementation of on-site activities**

▶ **In response to the growing need for innovative Construction 4.0 solutions, Manni Green Tech has been investing in a research project at the Be Factory technology hub in Rovereto since 2021, launching long-term research, investigation and development projects.**



THE POTENTIAL OF STEEL FOR HOTEL HUBERTUS WELLNESS AREA

“Hub of Huts” is the upside-down village suspended in free space supported by 125 tonnes of steel. The project is a spectacular extension of the wellness area at the Hotel Hubertus, a wonderful luxury hotel in Valdaora, in the province of Bolzano, nestled in the Dolomites at an altitude of 1,350 metres with an incredible view of the Val Pusteria.

Precisely because of its picturesque location, the Gasser family, owners of the hotel, requested more than just a structural extension, a true work of art, where the architects could design in complete freedom. Hence the analysis of the dualism between nature and artifice, upright and upside-down, tradition and innovation by the NOA architectural firm, which was conceptually inspired by the reflections of the Dolomite peaks mirrored in the infinity pool of the Hotel Hubertus, also recently built by NOA. The idea materialised in the design for a platform suspended 15 metres above the ground to house a spa and wellness area,

which posed an obvious structural challenge. Steel proved to be the optimal material to implement the static structure, because it lends itself to creating the components off site. In cases where construction sites are as cramped and complex as this, it would be impossible to produce the same structural elements on site.

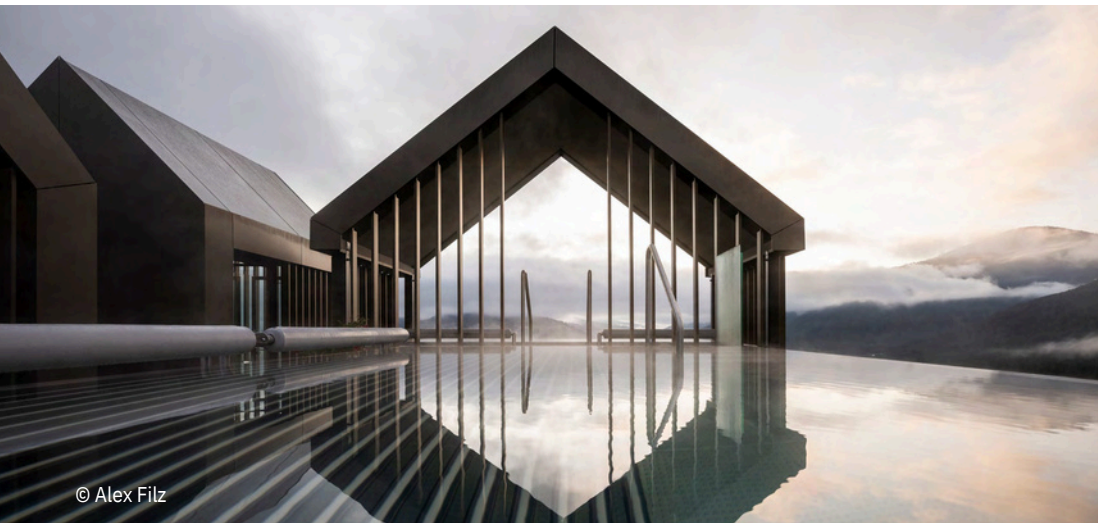
The iconic suspended structure is therefore now supported by huge beams clad in larch



© Alex Filz



INSIGHT



© Alex Filz

“For the choice of material for this construction, we started talking about steel with the structural engineers at an early stage of the design. In fact, we did not know whether such a structure, with these characteristics, was really feasible.”

Architect Gottfried Gruber, Studio NOA



logs. They are composed of 125 tonnes of pre-processed steel, including welded beams and rolled beams supplied by Manni Sipre, which were then finalised, assembled on the ground and erected at height.

The project was made possible by a great team effort between the architectural firm in Bolzano, Sparer steelwork, which took care of assembling and constructing the structure in collaboration with the static engineers from IPM and Manni Sipre. This concerted work between client, designers, supplier and engineering firm was a true partnership,

without which this result would not have been achieved.

A further key element that made Manni Sipre a strategic partner in this project was its ability to meet the tight schedule required.

Thanks to the large stock and in-house expertise in the production of the composite beams, the client was able to win an otherwise impossible order: everything was defined, processed, pre-assembled and delivered within three months, ensuring that the hotel could reopen to the public at the chosen time.

“A large space without external influence was needed to achieve the precision of holes, joints and welds that are essential for site work.”

Architect Gottfried Gruber, Studio NOA



INSULATING PANELS



Isopan seeks to promote the concept of **responsible construction by ensuring the wellbeing of those living in the built spaces**, as well as taking care of positive external effects for stakeholders and the community as a whole.

Together with its network of partners, it supports engineering and architecture firms, construction companies and installers with end-to-end solutions: from collaboration at the design stage to on-site delivery of the product portfolio.

As one of the world's leading **manufacturers of insulating metal panels for walls and roofs**, Isopan promotes state-of-the-art solutions and materials for safer and more efficient buildings featuring high performance in terms of thermal and acoustic insulation, fire reaction and airtightness. The buildings also achieve a high design value through a wide range of aesthetic finishes.

Isopan products and systems are ideal for a variety of uses, such as commercial, civil, industrial and livestock buildings, cold logistics, large-scale distribution and data centres.

► Isopan SpA

Parent company of the Isopan companies, it is based in Verona with two production plants in Trevenzuolo (Verona) and Patrica (Frosinone). Thanks to investments in R&D and the know-how acquired for the development of

new technologies, also assisting the foreign subsidiaries, Isopan can **offer a unique range of applications and options**.

The insulating core of the panel is composed of rockwool or polyurethane foam to ensure high levels of insulation.

In addition to technical certifications, Isopan has environmental certificates and labels, such as the Environmental Product Declaration (EPD) and the Declare label, which transparently communicates all substances used to produce the panels. This transparency means that Isopan products can contribute to obtaining BREEAM (Building Research Establishment Environmental Assessment Method), LEED (Leadership in Energy and Environmental Design) and Minimum Environmental Criteria (CAM) building sustainability certifications.

► Isopan Ibérica

The first Isopan subsidiary to open abroad, it was founded in 2001 and is based in Tarragona, Spain. It serves the Spanish, Portuguese, French and North African markets. 2019 marked the opening of a **new dedicated rockwool line**.

► Isopan Deutschland

Isopan DE has been serving Central and Northern European countries since 2012. Since 2021, the company has been based in the



© Flavio Chiesa

Starpark Halle industrial park in Halle (Saale), Germany, where it has increased its production capacity with the aim of further strengthening its presence in the region with **high-tech solutions**.

► Isopan Est

Isopan Est was founded in Bucharest in 2007, serving the markets of north-east Europe and achieving a market-leading position for its extensive range of high-quality solutions. It is the first Isopan site to have introduced **innovative customer service programmes integrated** within all company processes.

► Isocindu

Founded in Guanajuato (Mexico) as a joint venture with the Venezuelan company Cindu, it is the most recent Isopan company. Today it ranks among the leaders in the Central and South American markets for the production of insulating panels.



ALEXANDRU CIUCA

TECHNICAL MANAGER
ISOPAN EST

“ In my daily work, it is essential to investigate and know the needs of local markets. This process allows us to assimilate these needs within our research and development know-how, so that we can always offer state-of-the-art solutions that are perfectly aligned with the requirements of customers and those who will live in the environments we build.

We strive to fully understand the unique challenges and expectations of each market, and integrate this information into our work to develop products that effectively and proactively respond to the evolving needs of the sector.

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LIVING COMFORT: RENOVATION OF THE MADONNA BIANCA TOWERS

In Trento Sud stand the Madonna Bianca Towers, the complex erected in the 1970s by the architect Marcello Armani and engineer Luciano Perini. These are 14 apartment buildings on which a major redevelopment process was initiated in November 2022.

It is based on a project by Bombasaro and Campomarzio architectural firms, marking an important step in the world of residential building envelopes, which are committed to an energy transition.

The energy efficiency improvement work involved renovating the facade of the towers while they were inhabited. The construction site required a considerable organisational effort in terms of speed and efficiency to ensure the residents could live comfortably.

Fundamental to this was the use of the ADDMIRA facade system supplied by Isopan, the first “dry” cladding system specifically designed for building renovation.

The ADDMIRA off-site technology involves off-site pre-assembly of all elements at Isopan’s plants, which minimises on-site work, resulting in precision and fast application.

The speed typical of ADDMIRA also derives from its ease of installation, as installation can take place in all weather conditions without interrupting the progress at the construction site. This solution was also instrumental in allowing the use of mobile scaffolding, thus significantly reducing the inconvenience for the building’s occupants.

The Isopan sandwich panel used for this



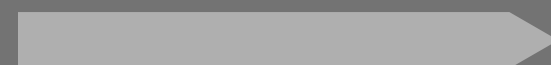
© Flavio Chiesa

INSIGHT



“The work was carried out using dry panels to upgrade the envelope, which meant it could be carried out quickly with the inhabitants in the building, and with a construction site where off-site technology helped to ensure high quality standards and fast assembly.”

Architect Andrea Bombasaro, Studio Bombasaro



solution offers high-performance thermal insulation. Its PIR insulating core, made with Isopan’s Leaf technology, reduces panel thickness and weight, a feature that has made it possible to achieve lower thermal transmittance – up to 20% – than a standard product. Finally, limiting the thickness of the facade has avoided setting back the existing window and door frames excessively, which would penalise their lighting ratio,

thereby maintaining the living comfort of the apartment blocks.

Specifically, the ADDCross solution was chosen with a Kerlite porcelain stoneware exterior finish by Cotto d’Este, together with ADDVision with a special pre-painted Natural Concrete finish, which also ensured one of the project’s fundamental requirements, namely the best possible resemblance to the original cladding to respect the pre-existing structure.

“When renovating the Madonna Bianca Towers, we found Isopan to be an attentive partner, instrumental in defining a solution that was compatible with the original architecture of the existing facades while offering the high thermal and acoustic performance needed to achieve the goals of the ‘110% building bonus’.”

Marco Scrufari, Collini Lavori SpA



© Flavio Chiesa

COLD CHAIN, THE ENERGY EFFICIENCY OF THE NEW NEWCOLD HUB

Fiorenzuola d'Arda is home to the new NewCold hub, a leading cold chain logistics provider based in the Netherlands, which works closely with its global partners to develop projects in locations with specific logistical needs.

Thus the new automated cold hub with a capacity of 145 thousand pallets was created. It is a large geometric white box offering a capacity hitherto unavailable in the Italian or European market.

Covering the façade of the building are 38,500 m² of Isofrozen panels, Isopan's solution for the design and construction of temperature-controlled environments.

With a thickness of 200 mm, the panel provides high-quality, efficient thermal insulation that meets the intrinsic

requirements of these constructions. The special joint used also offers extraordinary airtightness, ensuring that the temperature is constantly maintained at -23°C, a crucial requirement for the cold chain.

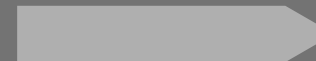
These technical features, together with NewCold's know-how, offer an energy efficiency of over 60% and a 60% reduction in labour costs compared to traditional competitors on the market. Isopan's Isofrozen panel is certified according to the FM Approval international product quality standard, and has fire reaction certifications according to European standards, achieving a fire reaction class of Bs1d0 (the highest attainable on polyurethane foam products) and fire resistance up to one hour.

“In refrigeration logistics, attention to energy consumption and its sustainability is of great importance.

NewCold offers 60% less energy consumption than our global competitors, thanks to obsessive attention to every detail in the construction of our logistics hub.

Of course, an important part is the panel quality and types used. That is why we relied on Isopan for our project in Fiorenzuola d'Arda, which we considered the best in class in the Italian market and the right sandwich panel manufacturer to tackle this project.”

Luca Quaresima, Country Manager NewCold Italy



© Flavio Chiesa



INSIGHT

SERVICES BUSINESS UNIT



Manni Energy offers itself as a **partner of choice in the energy transition**. For over 13 years, it has been **designing, building and operating renewable energy plants** and accompanying companies through the process of energy management and consumption efficiency improvement. It covers a wide range of services in the fields

of energy efficiency, distributed generation and digital energy, taking care of every stage of the value chain, from feasibility and design to execution and management, and integrating the service with advanced Metering&Control solutions provided by the innovative Maetrics IoT and MEvision platforms.

TECNOGEST

In 2023, Manni Energy acquired a majority stake in Tecnogest, a renowned technology services and consulting company specialising in optimising building performance with 30 years' experience in Italy. Integrating Tecnogest's solutions into its Maetrics portfolio has made Manni Energy a one-stop shop for a full range of smart building services, enhancing the hardware and interfaces

typically offered by Tecnogest to improve building performance through a consultancy approach and automation efficiency models. This strategic union brings together a wealth of knowledge and expertise, enabling the new entity to provide more comprehensive solutions to customers, with a focus on efficiency and decarbonisation.



Division ENERGY EFFICIENCY

► **ENERGY CONSULTING**

Manni Energy offers customised consulting for companies of all sizes and sectors, aimed at **optimising energy efficiency** and **reducing costs**.

Through detailed analyses, the Manni Energy team assesses infrastructure, identifies savings opportunities and designs innovative solutions to manage and ensure continuous improvement in energy performance in order to help companies become more competitive.

► **CARBON MANAGEMENT**

Manni Energy’s Carbon Management service aims to **reduce carbon and greenhouse gas emissions**, thus offering companies the opportunity to improve their impact and

reputation, access subsidised financing, and open up new markets due to the growing demand for responsible practices.

Through targeted emission monitoring and optimisation strategies, Manni Energy supports companies in their transition to more efficient operations, while promoting resilience and brand enhancement.

► **DIGITAL ENERGY**

Cutting-edge digital solutions that facilitate **smart energy management**, with the aim of cutting costs and increasing the competitiveness of companies in the energy market. The **Maetrics** and **MEvision** platforms feature advanced digital technologies such as IoT and data analysis to support companies in monitoring, optimising and controlling energy consumption and managing photovoltaic plants in real time.

Division RENEWABLES

► **DISTRIBUTED GENERATION**

Integrated solutions for decentralised energy production. By **installing distributed generation plants**, such as photovoltaic and cogeneration plants, Manni Energy helps companies reduce dependency on the traditional electricity grid to improve energy autonomy and reduce operating costs. With an approach tailored to the customer’s specific needs, it offers advice, design, installation and continuous monitoring of plants to ensure optimal performance and maximise economic benefits.

► **SOLAR ADVISORY**

Manni Energy provides **specialist solar energy** advice through its Solar Advisory service to help customers optimise their

investments in photovoltaic plants. It offers support from site assessment and feasibility analysis through design, implementation and obtaining funding. With customised solutions and the use of advanced monitoring technologies, Manni Energy ensures efficiency and maximises the economic and environmental benefits of solar projects.

► **O&M PHOTOVOLTAICS**

Operating and maintaining photovoltaic plants ensures maximum long-term efficiency and reliability. This service includes real-time monitoring, preventive and corrective maintenance, fault management and energy performance optimisation. Manni Energy adopts a proactive approach to ensure continuous plant efficiency, reduce downtime and maximise return on investment for its customers.





MANNI **IMMOBILIA**

The company optimises **management services for industrial buildings** and is currently also responsible for extraordinary maintenance of the Group's own buildings.



MANNI **STORE**®

It is the sales company serving the North-western Italian market by offering **distribution of the Group's products**.