

REFERENCE BOOK 2023



CARRON



CARRON

Building beauty

*Building means participating in creation.
Each piece, each part of the work,
each moment, of which the big construction is made, is for the whole.
It is intended for Beauty, it is because it is useful, it is to stay.
It is for something, but, especially, for someone. Building lasts a lifetime,
and it is intended for one's own life as well as for the life of others.
Man builds and when he does it well, he also builds himself.*

(Emilia Guarnieri)



COMPANY'S GENERAL INFO

COMPANY NAME

Carron Cav. Angelo S.p.A.

REGISTERED OFFICE

Via Bosco 14/1
31020 San Zenone degli Ezzelini (TV)
Tel. 0423 9657 - info@carron.it

MILAN BRANCH OFFICE

Piazzetta del Liberty 8
20121 Milan
Tel. 02/86998023 - info@carron.it

TAX CODE

01835800267

VAT NUMBER

01835800267

LEGAL FORM

Joint-stock Company

SHARE CAPITAL, FULLY PAID-UP

€ 10,000,000 i.v.

ENROLMENT WITH THE C.C.I.A.A. OF TREVISO

Business Register No. 01835800267
R.E.A. No. 171597

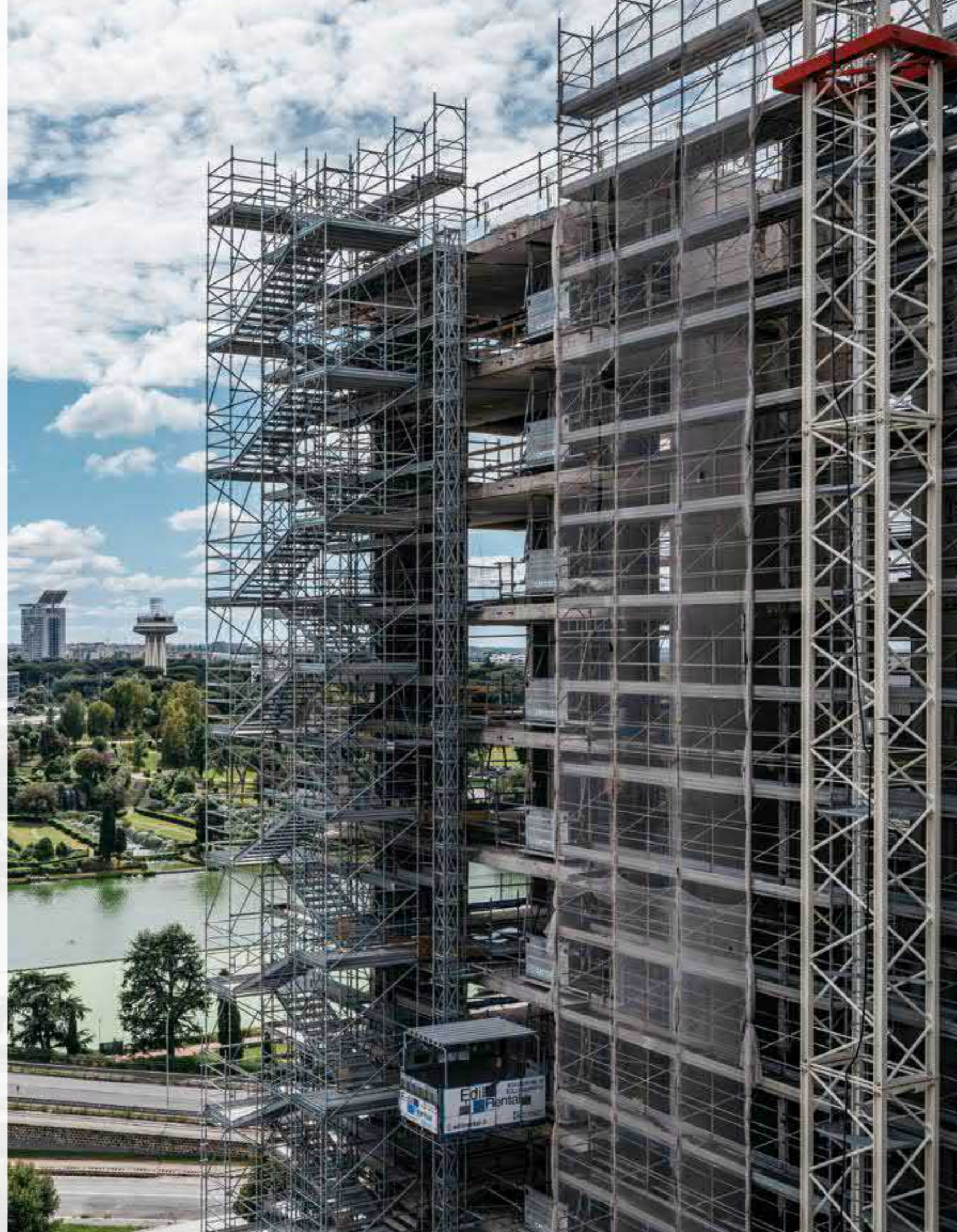
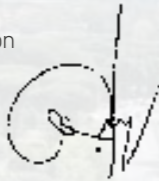
OUR GROUP

Our Group's latest annual report is a new, immediate snapshot of growth. Production exceeds EUR 307 million, EBITDA is EUR 21.7 million (7.05% of the value of production), EBIT amounts to EUR 19 million (6.19% of the value of production), while net profit comes to 11.5 million euro (compared to EUR 9 million last year). Moreover, the portfolio of works, amounting to EUR 735 million, allows us to look to the future with confidence and enthusiasm.

However, our satisfaction does not solely come from the numbers. We know that achieving such positive results is due to the professionalism, dedication, and tremendous commitment demonstrated by our entire company during this very unpredictable year. The international crisis and the internal economic repercussions forced us to constantly review our forecasts, facing price increases and shortages of essential raw materials for our production and the survival of our supply chain.

We have shown tenacity and readiness. In a word: strength. And with the same strength, we look towards the new year.

Diego Carron



OUR GROWTH

Founded as a construction company in 1963 by Angelo Carron, today the company – a group consisting of Carron S.p.A. and Carron Bau S.r.l. – is a national benchmark for the private and public construction sectors. Guided by the second generation represented by the siblings Diego, Arianna, Paola, Marta and Barbara, they have embraced an important legacy by safeguarding tradition, stimulating innovation, enhancing human capital, investing in new talent, and fostering strong connections with the territories in which they operate.

With a net profit in the consolidated financial statements increasing from EUR 9.8 million to EUR 11 million, a production volume of EUR 300 million (up from EUR 250 million in 2021), an EBITDA of 19.50 million euro (a 15% increase compared to 2021) and an EBIT of EUR 18 million (compared to EUR 14 million, an increase of 30%), Carron Group has achieved a positive year-end result in 2022, reaffirming its leadership in the construction, restoration, and large infrastructure works market.

Throughout the year, several projects have been completed. In Veneto, the first lot of the healthcare hub in Treviso, Cittadella della Salute, was inaugurated; in Lombardy, the Torri Zambon Farmaceutica in Bresso and the renovation of various buildings in Milan for leading investment funds were completed; in Piedmont, the green light was given for the construction of RSAs in Lingottino (totalling more than 300 rooms); and in Trentino Alto Adige, the TRENTO 3 wastewater treatment plant was completed. In Lazio, particularly in Rome, the Group delivered the new Bulgari Hotel & Resort, a building owned by Edizione Property, and secured the project for the redevelopment of the Torri EUR, a building complex owned by Cassa Depositi e Prestiti and commissioned by Alfieri S.p.A. for a total of EUR 100 million. Carron Bau continues the construction of the Kuchelberg tunnel in Merano, and in the Marche region, Carron S.p.A. is building the Fermo civil hospital.

Among the new projects starting in 2023, there is the expansion of Bulgari Jewellery in Valenza. Also in 2023, in the second half of the year, the inauguration of OLM - NATURE ESCAPE is planned. It is an innovative and extraordinary project in South Tyrol, in which the group, through Carron Bau, is involved in both the construction and management of a new completely sustainable model of hospitality, a carbon free building that will rise in Campo Tures (BZ) in the heart of South Tyrol. This one-of-a-kind project confirms the Group's strategy of diversification.



GOVERNANCE

BOARD OF DIRECTORS

| | |
|----------------|----------------|
| Diego Carron | President |
| Marta Carron | Vice-president |
| Paola Carron | CEO |
| Arianna Carron | CEO |
| Barbara Carron | CEO |

BOARD OF STATUTORY AUDITORS

| | |
|----------------------|-------------------|
| Marco Contessotto | President |
| Alberto Da Dalto | Standing Auditor |
| Primo Ceppellini | Standing Auditor |
| Alessandra Poloniato | Alternate Auditor |
| Paolo Giroto | Alternate Auditor |



TURNOVER

| YEAR | 2020 Consolidated | 2021 Consolidated | 2022 Consolidated |
|-----------------------|----------------------|----------------------|----------------------|
| AMOUNT (mnl/€) | 250 | 245 | 308 |

WORKFORCE

| YEAR | 2020 | 2021 | 2022 |
|----------------------|------|------|------|
| Blue-collar workers | 74 | 73 | 79 |
| White-collar workers | 182 | 192 | 203 |
| Managers | 8 | 7 | 7 |
| Total | 264 | 272 | 289 |

BANKING ISTITUTIONS

The banking institutions with which the enterprise operates and which is thus able to certify its financial and economic viability are:

UNICREDIT
BANCA INTESA
BPM
CREDIT AGRICOLE
BNL
DEUTSCHE BANK
BANCA DELLE TERRE VENETE
MONTEPASCHI
SPARKASSE

QUALIFICATION

CLASS VIII DESIGN AND CONSTRUCTION QUALIFICATION

| Categories | Classification | Amounts | Works |
|------------|----------------|-------------------|--|
| OG 1 | VIII | unlimited | Civil and industrial buildings |
| OG 2 | VIII | unlimited | Restoration and maintenance of heritage-listed real estate |
| OG 3 | VIII | unlimited | Roads, motorways, bridges, viaducts, railways, subways |
| OG 4 | VIII | unlimited | Underground road structures |
| OG 6 | VIII | unlimited | Aqueducts, gas pipelines, oil pipelines, irrigation and drainage works |
| OG 8 | V | up to € 5,165,000 | Waterway, defence, hydraulic and remediation works |
| OG 11 | VIII | unlimited | Technological set-ups |
| OG 12 | I | up to € 258,000 | Reclamation and environmental protection works and systems |
| OS 1 | V | up to € 5,165,000 | Ground works |
| OS 2 A | V | up to € 5,165,000 | Ornate decorations on real estate of cultural significance and movable assets of historical, artistic, archaeological and ethno-anthropological interest |
| OS 4 | II | up to € 516,000 | Electro-mechanical conveying systems |
| OS 6 | V | up to € 5,165,000 | Finishes for general works in wooden, plastic, metallic and glass materials |
| OS 7 | V | up to € 5,165,000 | Finishes for general construction and technical works |
| OS 8 | V | up to € 5,165,000 | Waterproofing works |
| OS 12 A | III-BIS | up to € 1,500,000 | Road safety barriers |
| OS 13 | V | up to € 5,165,000 | Prefabricated structures in reinforced concrete |
| OS 18 A | VIII | unlimited | Structural components in steel |
| OS 18 B | VIII | unlimited | Components for continuous façade systems |
| OS 21 | V | up to € 5,165,000 | Special structural works |
| OS 22 | III | up to € 1,033,000 | Water treatment and purification plants |
| OS 24 | II | up to € 516,000 | Urban greenery and street furniture |
| OS 32 | IV-BIS | up to € 3,500,000 | Wooden structures |



CERTIFICATIONS

CERTIFICATION FOR THE ORGANISATION'S QUALITY MANAGEMENT SYSTEM

Quality Certification No. 1702_22_Q conforming to the European standards of the ISO 9001:2005 series in the IAF 28 sector, issued by the certification body ASACERT S.r.l., Via V. Veneto 2, Cormano (MI), on 19/07/2016 (first issue on 13/09/2000 by another certification body, number and amendment date 03 - 08/07/2022) and with expiry date on 18/07/2025.

CERTIFICATION FOR THE ORGANISATION'S ENVIRONMENTAL MANAGEMENT SYSTEM

Environmental certification no. 2023/3323, A/1 conforming to the European standards of the ISO 14001:2015 series, issued by the certification body CERTIFICATION EUROPE Ltd, Block 20/A Beckett Way, Park West Business Park, Dublin 12, Ireland on 16/05/2023 (first issued on 06/09/2010 by another certification body) and with an expiration date of 03/09/2025.

CERTIFICATION FOR THE WORKPLACE HEALTH AND SAFETY MANAGEMENT SYSTEM

Health and safety certification no. 2023/3324, A/1 conforming to the European standards of the ISO 45001: 2018 series, issued by the certification body CERTIFICATION EUROPE Ltd, Block 20/A Beckett Way, Park West Business Park, Dublin 12, Ireland, on 16/05/2023, (first issued on 06/09/2010 by another certification body) and with an expiration date of 03/09/2025.

CERTIFICATION OF THE ROAD SAFETY MANAGEMENT SYSTEM

Certification no. 0152R2023 conforming to the European standards of the ISO 39001:2012 series issued by CERTIS on 16/01/2023 (first issue) and with an expiration date of 16/01/2026.

CERTIFICATION OF THE ANTI-CORRUPTION MANAGEMENT SYSTEM

Certification No. 2459_23_AB conforming to the European standards of the ISO 37001:2016 series in the IAF 28 sector, issued by AMTIVO ITALIA S.r.l. on 30/05/2023 (first issue) and with an expiration date of 29/05/2026.

CERTIFICATION FOR PUBLIC WORKS QUALIFICATION

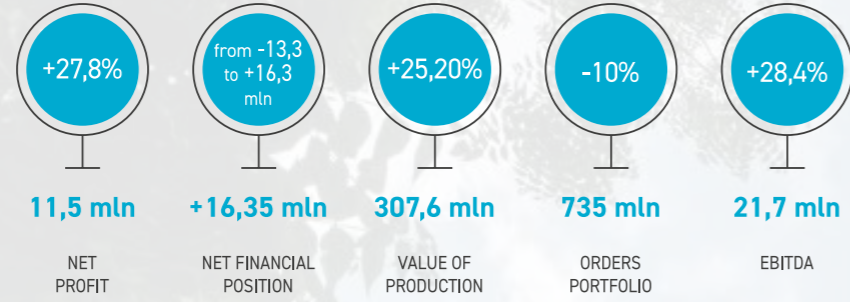
SOA qualification certificate issued by CQOP SOA S.P.A. COSTRUTTORI QUALIFICATI OPERE PUBBLICHE - Headquarters: Via Giuseppe Antonio Guattani - ROME.
Certificate no. 64887/10/00 issued on 13/07/2022 7 with expiration on 28/04/2024.

GBC ITALIA

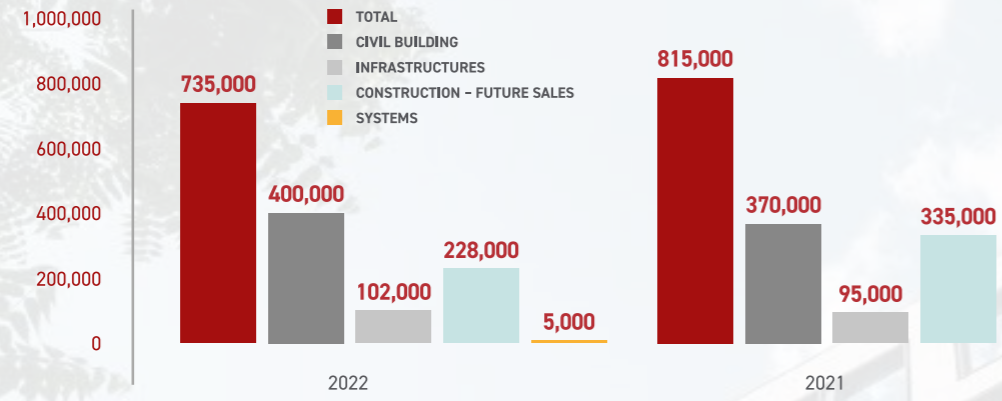
In 2013, Carron joined the Green Building Council Italia, a non-profit association that is part of the international GBC network aiming to accelerate the dissemination of a culture of sustainable construction, guiding the market's transformation.

Thanks to a partnership agreement with USGBC, GBC Italia and the construction supply chain that form this "sustainable construction community", promoting the independent certification system LEED (Leadership in Energy and Environmental Design), the parameters are established for the precise planning and construction criteria for "healthy" buildings that are energy-efficient and have a reduced environmental impact. This certification, developed in the United States and now applied throughout 40 countries around the world, opts for a global vision of sustainability (from the planning to the actual construction), exploiting all possible means for reducing the various environmental impacts and harmful emissions in the construction of buildings. It also establishes a market value for the "green buildings", stimulating competition between companies in terms of the environmental performance of constructions and encouraging conscious consumption, even amongst the end users.

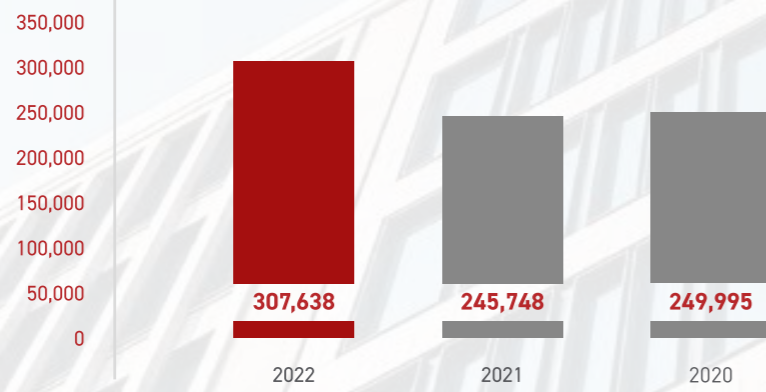
2022 FIGURES



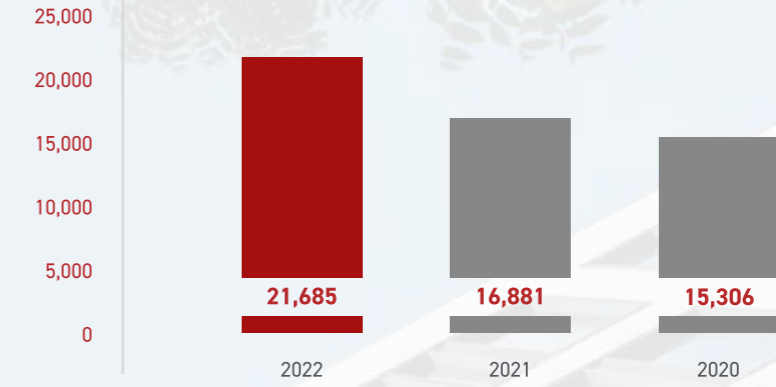
ORDER PORTFOLIO BY BUSINESS LINE IN THOUSANDS OF EUROS



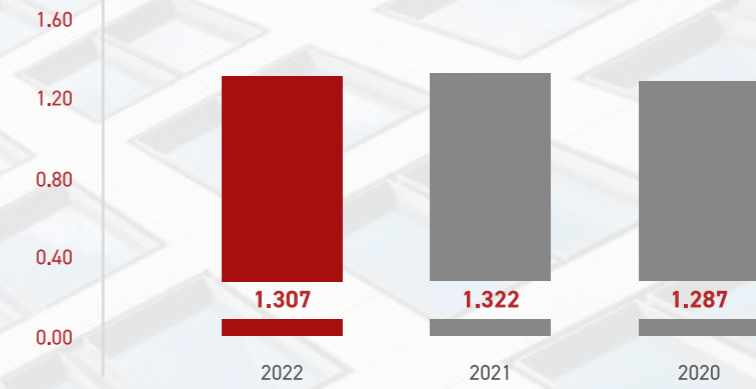
VALUE OF PRODUCTION IN THOUSANDS OF EUROS



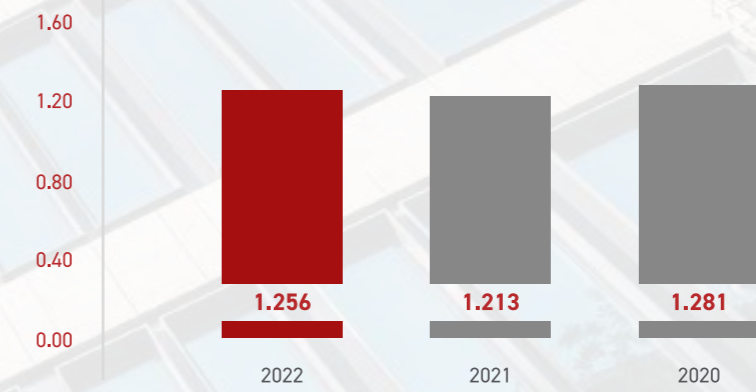
EBITDA IN THOUSANDS OF EUROS



CURRENT RATIO CURRENT ASSETS/CURRENT LIABILITIES



QUICK RATIO CURRENT ASSETS - STOCKS/CURRENT LIABILITIES

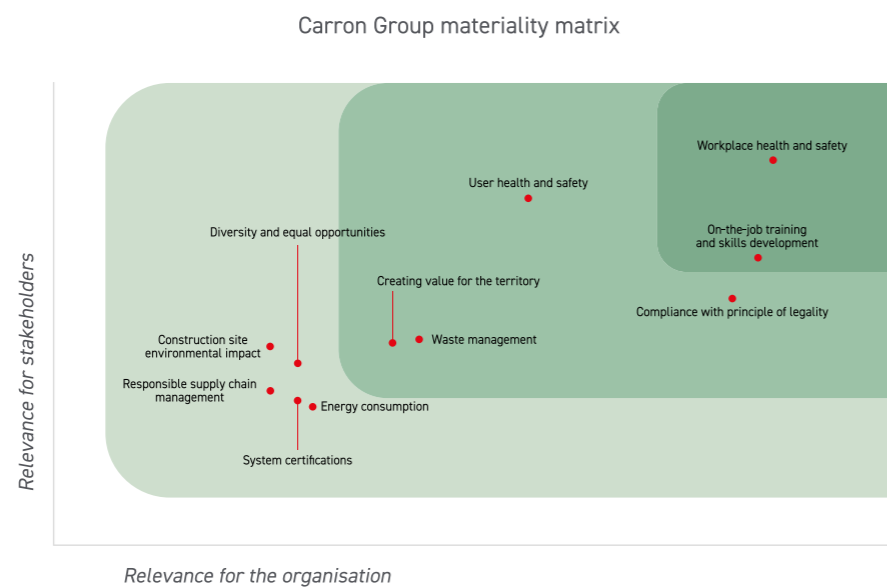




CARRON GROUP SUSTAINABILITY

The Sustainability Report is the tool the Carron Group has chosen to communicate its environmental, social and governance performance annually. This important tool has reached its second edition, demonstrating how the Group is committed to the continuous evolution and improvement of its ESG performance.

The necessary step to define priority issues is called materiality analysis, which consists of involving and consulting stakeholders in order to define those issues that are essential for reporting in a Sustainability Report.



These issues have been described with due emphasis in the sections of the Sustainability Report, in order to provide stakeholders with a faithful representation of the developments taking place – with a view to consistent and transparent communication – but above all to provide clear indications of the development horizon: the objectives, responsibilities, projects, metrics and activities implemented to achieve them.

The highlights of the Report are as follows:

Employees by gender (%)
Carron Group (2022)

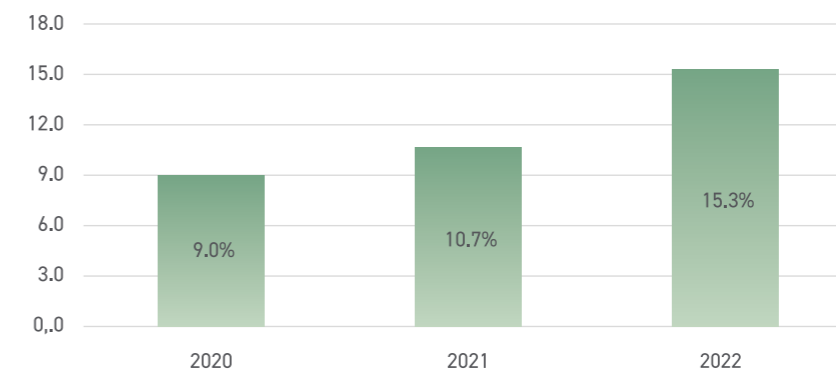


Carron Group has always been committed to fostering inclusion and fairness at work, despite the fact that there is still a significant gender gap in the company resulting from the specific industry and socio-cultural context.

Recently, new professions have been created in the construction sector, for example, through energy efficiency and improvement processes, also with a view to sustainable construction: these areas offer a promising future for specialised professionals, regardless of gender.

Employee training is an essential tool for increasing awareness of innovation and, as a result, company competitiveness. The hours spent on training show an increasing trend over the three-year period, demonstrating the company's investment in the continuous learning for its employees.

Training hours/man, Group
Three-year period 2020/2022

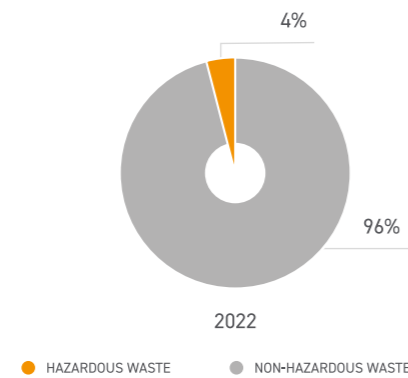


In 2022, 42% of the energy consumed by Carron SpA came from its own photovoltaic system on the roof of its Treviso headquarters, while the remaining electricity purchased and consumed came from 100% certified hydroelectric renewable sources 'Energia pulita - Green energy' project with Dolomiti Energia.

51.9% of Carron SpA's waste was packaging, required for the storage and transport of raw materials from the warehouse to the construction sites.

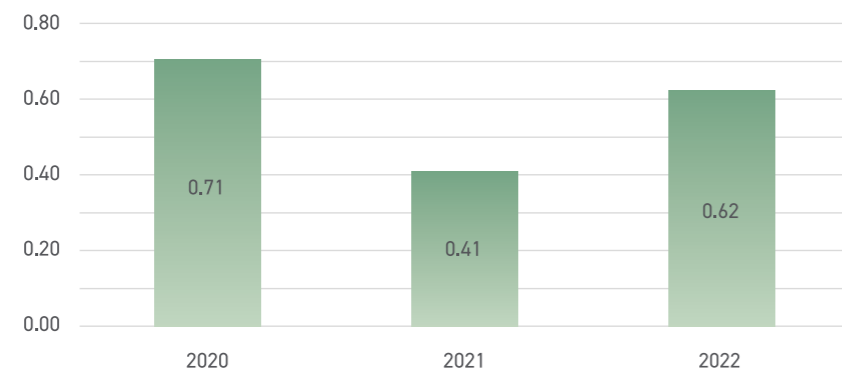
The waste generated by Carron Bau, on the other hand, is general office waste - similar to municipal waste - equivalent to 274.2 kg (in 2022).

Waste sorting, Carron SpA – 2022



To protect the health and safety of its employees, the Group has adopted a Management System in accordance with ISO 45001:2018. The System covers 100 % of employees and subcontracted workers at the company's headquarters and at all infrastructure sites managed by the Group. Every choice and every procedure is aimed at safeguarding the health of the workers and the community in which they operate: the purchase, operation and maintenance of machinery, the purchase of plant and equipment, the organisation of workplaces, and the definition of operating methods and organisational aspects are all aimed at continuous improvement.

Carron SPA – Injuries severity rate
Three-year period 2020/2022

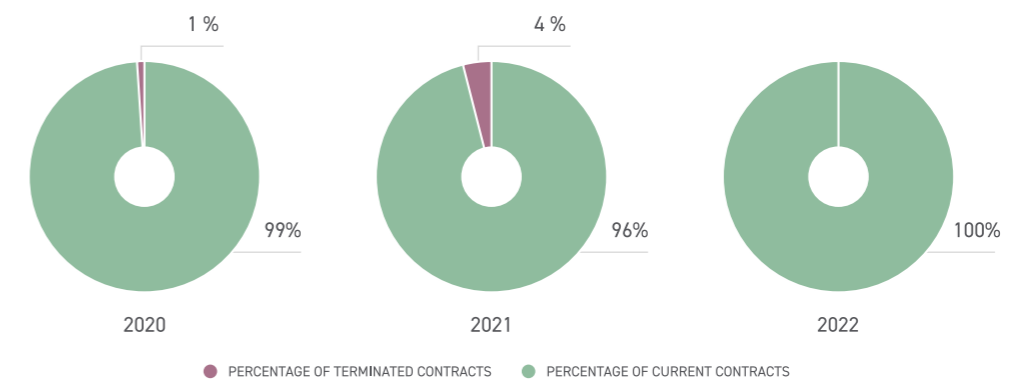


Aware of the fact that its business sector presents some critical issues related to environmental protection, Carron Group is committed to enhancing and protecting the territory as a common good and respecting the environment around its construction sites by carrying out preliminary environmental impact assessments in order to better direct project implementation and environmental monitoring management during the construction phase.

For Carron, this approach is not a challenge, it is standard practice. Reducing general negative environmental impacts when carrying out works through an assessment of these impacts at the planning stage and through careful selection, evaluation and awareness-raising of suppliers and contractors, is one of the general objectives included in the Integrated Health, Safety and Environment System.

100% of new suppliers who do business with Carron Group are assessed using social criteria. This figure has remained constant over the three-year period 2020/2022. The Group only works with companies that respect human rights and labour dignity. Following checks and further evaluation, relations with the Group are terminated if there are found to be significant potential and existing negative social impacts.

Percentage of terminated contracts





LEGALITY RATING AND CODE OF ETHICS

ETHICS AS CARRON'S STRATEGIC ASSET

Carron is equipped with various tools that explicitly reflect the corporate ethical values.

It is a question of respect for a set of regulations and principles based on legality and ethics, the so-called "legal safeguards", that allow the company to operate as an ideal player in the introduction of new commercial relations.

Yes, in the present market context, it is important not only to ensure respect for the principles of transparency and legality - as the company has always done - but it is also crucial to ensure an unambiguous business model that combines respect for the legal-ethical principles and the profit-making objective.

This modus operandi allows the company to gradually expand its field of operation, implementing the client portfolio thanks to the consolidation of its reputation also in terms of ethics. It has thus increasingly invested in the creation of a series of regulations and practices to be respected in the in-house production processes and external relations, so as to effectively respond to the demands for integrity and legality expressed by the market.

The so-called "analysis of legality" helps to highlight the business engagement efforts in the promotion of the law, as well as to communicate such to employees, suppliers, clients and other interlocutors of the company.

Amongst the measures adopted to protect legality, some stand-out examples include:

- 1) the adoption of an organisational and management model set out under Legislative Decree no. 231/2001, containing the ethical principles and protocols of conduct that - if properly configured and effectively implemented - serve to prevent the offences mentioned in this law and prevent corporate sanctions;
- 2) the legality rating as a tool able to elevate such to an element of reward, in particular as a preferential criterion for the financing granted by the public administration or by accelerating the time required for the preliminary examination in the provision of bank credit.

From the above, all factors point towards a basic principle: companies that operate in the context of continuous growth should not only aim towards maximising profit but also a higher level of well-being, undoubtedly represented by the production and wealth but without overlooking "quality of life".

WHITE LIST

Since 13th November 2014, Carron Cav. Angelo S.p.A. has been listed amongst the executors of works not subject to attempts of mafia infiltration (the so-called White List) for the province of Treviso.

- This consists in a list established by the territorial Prefecture in accordance with the location of the applicant company's registered office.

- Registration covers the following 'Sensitive Activities':

- a) transport of materials to landfill on behalf of third parties;
- b) extraction, supply and transport of soil and inert materials;
- c) packaging, supply and transport of concrete and bitumen;
- d) hiring of machinery with operator;
- e) supply of wrought iron;
- f) operated Equipment Rental;
- g) road haulage on behalf of third parties;

- The absence of mafia infiltration is checked along with criminal convictions regarding all senior managers in the company (Legal Representatives, Technical Directors, Board of Statutory Auditors, Supervisory Board, Attorneys) and their life partners on the basis of the new Anti-mafia Database by the relevant Prefecture.

- This speeds up the time it takes to have the Public Administration verify the company, replacing the anti-mafia certification.

- This is reflective of the current situation within the company due to having a validity of only 12 months and because of the obligation to be updated through the immediate communication of any corporate changes to have taken place.

ANCE LEGALITY PROTOCOL

Carron Cav. Angelo S.p.A. joined on 26/09/2022.

It establishes a procedure in which the adhering Company commits to award works and supplies (in cases where the contract services are directly or indirectly considered 'sensitive activities') exclusively to subjects registered on the White List or the Anti-Mafia Register of Operators; alternatively, if the recipients are not listed in the aforementioned registers, they will be subject to legality verification by ANCE, upon Carron S.p.A.'s request.

ORGANISATION, MANAGEMENT AND CONTROL MODEL AS PER LEGISLATIVE DECREE 231/2001

Legislative Decree no. 231/2001 introduced administrative liability for legal persons. This has led to the risk that, upon specific criminal cases arising, the company may be subject to financial and prohibitive sanctions. The adoption of this model prevents crimes being committed through defining the internal regulations and precepts verified by the Supervisory Body through auditing and monitoring the information flows regarding the activities carried out within the various areas of the company.

Through its application, the company's activities are constantly monitored, with the entire organisational structure being responsible for its operations. Moreover, the adoption of the model and its effective performance precludes eventual sanctions to be borne by the company.

CODE OF ETHICS

ANCE CODE OF ETHICS

Carron Cav. joined Angelo S.p.A. on 24th November 2014.

The Code of Ethics adopted by ANCE (the Associazione Nazionale Costruttori Edili, being the Italian Association of private construction contractors), establishes an ethical commitment with the objective of protecting freedom to conduct a business, transparency and legality in the construction sector.

By adopting it, Carron expresses its will to contribute to the achievement of such objectives, applying the provisions contained therein to its activities.

CARRON CODE OF ETHICS

With the resolution of the Board of Directors on 10th May 2013, Carron also adopted own Code of Ethics, representing a set of rights, duties and ethical principles adopted by the Company with regards to employees, government, shareholders and third parties.

By adopting it, the company commits to working towards transparency and legality in its activities, making a number of principles explicit to enhance the company's ethics, better specifying the requirements of the ANCE Code.

BASIC PRINCIPLES

Carron considers that legality, correctness and transparency are essential prerequisites for achieving its economic, productive and social objectives. The company ensures its actions conform so as to obtain competitive results that reward ability, experience and efficiency, operating within a context of complete and fair competitiveness, in compliance with the law.

CONTENT

The Code of Ethics contains:

- a set of Rules of Conduct in relations with external stakeholders, collaborators, the market and the environment.
- an organisation and management model for the company, with an efficient and effective system of programming, able to ensure the respect of the rules of conduct by all those working for the company.

The Code of Ethics can be viewed on the website www.carron.it

EXTERNAL RELATIONS

Any information contained in communications with the outside world must be truthful, clear and verifiable. Any form of gift, the establishment of favourable personal relations even which may appear to exceed normal commercial practices or courtesy, or whereby aimed at receiving favourable treatment in the conduct of any activity are not permitted.

Carron shall provide no contributions, benefits or other advantages to political parties or to workers' trade unions, or their representatives, except in accordance with applicable legislation.

In participating in calls to tender, the company shall make offers that ensure compliance with appropriate quality standards, suitable wage levels for employees and existing safety and environmental protection measures.

ENVIRONMENT

The production activities are managed in compliance with the regulations in force, running all preventive checks so as to verify the possible environmental risks arising from the operation.

The company undertakes to disseminate and consolidate a culture of environmental protection and pollution prevention by promoting awareness of environmental risks and responsible behaviour.

EMPLOYEE RELATIONS

The company considers human resources as the main factor for the success of any enterprise, within a framework of mutual loyalty and trust between employers and employees.

All personnel are employed under regular employment contracts.

Employment is conducted in compliance with the regulations in force, encouraging continuous improvement and growth for all employees, also through the development of educational initiatives.

HEALTH AND SAFETY

The company guarantees the physical and moral integrity of its collaborators, in full respect of the regulations in force, including for temporary and mobile construction sites.

In carrying out its activities, the company ensures adequate accident prevention measures and a safe and healthy work environment.

The company is committed to spreading and consolidating a culture of safety amongst all its employees and subcontractors.

CHECKS

The company adopts specific provisions for monitoring the compliance of the conduct of any person acting on its behalf, in order to detect and eliminate any situations of risk in a timely manner. Given the articulation of activities, the company adopts a system of delegation of powers and positions, with the assignment of tasks being issued in explicit and specific terms to people with suitable capabilities and skills.

LEGALITY RATING

On 14/09/2021 the Autorità Garante della Concorrenza e del Mercato (AGCM - being the Italian Competition Authority) confirmed the three star-legality rating awarded to Carron Cav. Angelo S.p.A.

The AGCM defines the company's level of legality reached through a score attributed to the individual applicant companies. The evaluation criteria include the minimum requirements for obtaining a base score equal to one star. In addition, there are seven other requirements for the eventual increment of the score awarded. Each condition satisfied corresponds to a +. Every three + earns a star up to a maximum of three stars and one +.

The Legality Rating represents the highest certification a company can obtain to this end, resulting from a very thorough verification of ethical behaviour within the company by the AGCM (Italian Competition Authority).

The Rating is an important guarantee for the Public Administration and the company's possible clients, constituting a necessity when it comes to associated benefits in granting public funding and the facilitation of access to bank credit.

DIGITISATION AND STANDARDISATION

In recent years, Carron Group has introduced a process of digitisation and standardising business processes to optimise the organisation's information flows during all project phases. This process involved the implementation of new tools and platforms and the establishment procedures and protocols with the involvement of all departments within the Group.

The key element of this digitalisation and standardisation process is data management through **Building Information Modelling (BIM)** procedures and the creation of an **Integrated Management System** using specific software and tools that communicate with each other automatically, linking the technical and administrative departments.

The process involves collecting data structured according to specific standards and then reprocessing them to derive information to aid in managing the company's decision-making processes and monitoring specific projects.

INTEGRATED DATA MANAGEMENT SYSTEM

The standardisation process began with a detailed analysis and mapping of Carron Group's internal processes, and continued with the adoption of an **Integrated Data Management System** between the technical and administrative areas, using two specific interconnected software packages.

The procedure was initially used in some pilot projects to test and refine data collection and management criteria, before extending its application to all the Group's projects and initiating **training for the involved personnel**.

Carron Group now has **Guidelines for Project Management** that represent a collection of procedures and instructions for all company departments: General Managers' Offices, Site Operations Department, Purchasing Department, Multidisciplinary Department, Administrative Department, Logistics Department, and the Real Estate Department. Thanks to the digital intranet E-Learning platform, all technicians can easily access the Guidelines and the most up-to-date versions of the various documents used daily by the various departments for information management.

The introduced company rules and standards allow for a **structured corporate database** to facilitate the implementation of **Business Intelligence (BI)** procedures. Currently, the Management is defining additional Key Performance Indicators (KPIs) and further developing company processes to analyse strategic information through BI.

Finally, the aforementioned Integrated System allows all stakeholders from different company departments, according to their roles, to analyse data, including historical data not directly entered by them, making it a **flexible** tool for consultation and the entry of specific information by potential new contributors in this area.



MANAGING A BIM CONSTRUCTION SITE

The digitisation and information standardisation path implemented by Carron Group also involves **Building Information Modelling (BIM)** aspects, in response to the growing need to manage a constructive design and construction process through BIM procedure. This approach aims to reduce errors, time and costs while increasing data control and collaboration among all parties involved.

Within the company, BIM training courses were organised during the early months of the year, involving General Managers, Project Managers, Site Managers, Site Assistants, the Multidisciplinary Technical Department, the Procurement Department, the Studies and Projects Department, the Real Estate Department, and the Quality Manager. These courses provided basics knowledge related to BIM processes, highlighted practical cases, and initiated internal discussions on these topics.

The BIM management and coordination **team** within the company has been expanded with new professionals, some of whom work directly on site to coordinate BIM design. All the abovementioned figures have obtained **BIM Certification** as 'BIM Expert', demonstrating their skills and knowledge in this area. Additionally, during these months the team is working to obtain the **company's BIM Certification (SGBIM)**, which guarantees the company's quality and its alignment with the BIM methodology.

The project to optimise the company's BIM information management was initiated in 2018, with the ambition of standardising not only the processes related to construction design, but also those concerning **project temporal (4D) and economic (5D)** planning, thus improving the efficiency of the entire construction process.

To achieve this goal, the company's data management system (see previous section) is being integrated with the BIM information system to create a unified structured data system for implementing management control and business intelligence processes.



SCOPES OF APPLICATION

Among the projects that we are committed to as the General Contractor responsible for constructive design and information management during the construction phase, including BIM procedures, are the Torri Zambon building sites in Bresso (MI), Pirelli 35 complex in Milan, Manifattura Bulgari extension in Valenza (AL), New YSL complex in Scandicci (FI), Torri EUR in Rome, and the completion of the Bulgari Hotel in Rome.

At each of these sites, a coherent data management system has been implemented following the company's standards, such as an advanced work breakdown system (WBS), crucial for job planning and control. Some of these projects are directly related to the BIM development of the works themselves. Furthermore, internal BIM resources were involved as general design coordinators, performing interference and informational inconsistency checks and managing the **company's document platform**. This platform ensures information sharing among all involved parties, including the client, designers, suppliers, and the company itself. It encompasses the sharing of BIM models developed up to the as-built phase, which is essential for the management and maintenance of the works.

FAST IT INFRASTRUCTURES AND CYBERSECURITY

Fast connection on site

Carron Group continues to develop new cutting-edge systems and platforms to support on-site operations. The resources available to end-users are increasingly advanced and require more and more resources to operate with very tight response times.

The company's strategy focuses on providing all site offices with ultra-fast connectivity. Through strategic partnerships with leading Italian internet providers, we can quickly have infrastructures such as fibre optic or dedicated radio links serving end users.

These important interventions also add value to the final work by providing tenants with all the necessary underground utilities for connectivity.

Digitalisation and cybersecurity

As the company adopts new tools and platforms and exponentially increases the amount of corporate data passing through cloud platforms, the need for constant interconnection increases, leading to an increased exposure surface concerning cyberattacks.

The emergence of cyberattacks has become one of the priorities for IT infrastructure intervention. Carron Group has embarked on a policy of consolidating its corporate perimeter, updating tools, and implementing controls for detecting any anomalies or dangers.

In addition to what has been done at the infrastructure level, a training campaign has been launched for end-users. Through market-leading platforms, all users are invited to undergo continuous training sessions on cyber security concepts, such as phishing, ransomware, social engineering, and more.

This approach has reduced the percentage of risk, mainly by raising awareness among end users. By being aware of continuous attempts by malicious parties, end users are better equipped to handle specific situations.



MAIN PROJECTS UNDERWAY



CLIENT:

BULGARI GIOIELLI S.P.A. - VALENZA (AL)

BVLGARI FACTORY EXPANSION IN VALENZA AND PECETTO DI VALENZA (AL)



The Bulgari Gioielli production plant expansion in Valenza and Pecetto di Valenza (AL) involves constructing four new LEED Gold certified eco-sustainable buildings, covering a gross floor area of approximately 19,000 square metres, along with external infrastructure works, ranging from functional roads to company car parks, technological networks, and underground utilities.

The Nuova Manifattura building will span three levels with an above-ground height of 10.9 m and a total gross floor area of 12,800 square metres. The load-bearing structures, interior architecture, external glass and metal finishes, and types of systems will generally be similar to those of the existing factory already constructed by Carron.

The complex will be completed with a second building with a total gross floor area of 4,900 square metres, mainly for multi-purpose use and named the Central Building, which will serve as a link between the two factories. In addition, two technological buildings will be constructed to serve the Nuova Manifattura building and the entire production hub.

CLIENT:

ALFIERE S.P.A. (CDP IMMOBILIARE)

REDEVELOPMENT OF TORRI EUR REAL ESTATE COMPLEX IN VIALE EUROPA 242, ROME



The building complex, located within a plot of over 15,700 square metres, consists of several buildings of varying sizes and heights: Three 19-storey towers (B, C, C1), a long 6-storey building along Viale Boston (D), a 4-storey building facing Via Cristoforo Colombo (A), a smaller building serving as a link between the main buildings (E), and a common basement (G) consisting of a double underground level. Buildings A, B, C, C1 and D are already existing, while buildings E and G will be newly constructed; the total area affected by the works is approximately 63,000 square metres.

The Works are part of Phase 1 - 'shell & core' - of the Redevelopment Project and are aimed at the structural rehabilitation of the buildings and the refurbishment of the facades. In summary, the works include:

- Structural works: demolitions, earthmoving, new reinforced concrete works, reinforcements/consolidations, and waterproofing and insulation works.
- Metal carpentry works: new staircase structures, reinforcement of all vertical elements through metal cladding, new steel structures for the connecting building (E), and the basement (G).
- Facade works: installation of new glass facades.

The project aims to achieve LEED and WELL Gold certifications.

CLIENT:
COIMA SGR
PIRELLI 35 OFFICE BUILDING REDEVELOPMENT, MILAN



This project by Park Associati and Snøhetta in Milan merges architecture, landscape and two different approaches to design to create a generous, permeable and publicly accessible building that becomes an area of transit and urban reconnection.

Following strip-out and demolition work, the complex now consists of 2 underground floors and an 8-storey above-ground shell. The project involves the renovation of the existing building and the construction of a new 2-storey roof extension, the construction of a new building called the 'Bordoni Building', consisting of 6 above-ground levels and a basement, and the construction of a metalwork 'bridge' called the 'Bridge Building', which will connect the existing building with the Bordoni Building. Pirelli 35 consists of 2 buildings:

- The existing C-shaped building is approximately 40 metres high. The existing structure is preserved, while floors 9 and 10 (roof extension) are the subject of new construction.
- The new building (Bordoni Building) has an L-shaped floor plan and is 20 metres high. It includes a newly constructed portion in reinforced concrete and a suspended metalwork portion, bridging the 2 bodies (Bridge Building).

The ground floor includes the main lobby and shops (retail): these spaces are organised around a courtyard. Floors 1 to 10 house the offices.

All the buildings feature newly constructed glazed and opaque aluminium facades. The aluminium cladding features a textured finish, simulating GFRC and brass (existing building towards Piazza Einaudi and towards the courtyard) and brick (Bordoni Building), in terms of texture, colour and three-dimensional dusty effect.

CLIENT:
MARCHE REGION
NEW HOSPITAL COMPLEX IN FERMO



This project consists in the executive design and construction of the new hospital in Fermo. The basic idea behind the project was to structure the hospital complex into 4 blocks for various healthcare and other services, simultaneously dividing the services for inpatients (high- and low-care stays) from the areas dedicated to diagnosis and treatment, along with an internal structure (Block A) dedicated to outpatient services, for Day Care (Day Hospital and Day Surgery) activities. The hospital complex consists of 11 buildings, rising from a single base plate. The main figures are as follows: Gross surface area: 56,000 m²; gross volume:

230,000 m³; total number of beds: 362 (287 inpatient beds, 53 outpatient beds, 22 intensive care beds; number of operating theatres: 7; Parking spaces: 760 Structurally, the building is defined as 'fully base-isolated', with the entire structure supported on over 480 seismic isolators and sliding supports, as well as 40 fluid viscous dampers, which allow the load of the entire building to be fully carried by the foundation system (the vertical actions), but at the same time completely isolate it with regard to the horizontal forces that are typically generated during a seismic event.

In addition to the ongoing works are all the preparatory works such as the creation of an alternative road network for residents, solving interferences with underground utilities, explosive ordnance surveys and archaeological surveys that have brought to light the remains of various dwellings and over 100 Roman and prehistoric era burials along with various accompanying objects. During the work, Carron S.p.A. was granted a further contract for the design and construction of the entire external road network connecting the new hospital facility with the provincial road.

CLIENT:
CARRON CAV. ANGELO S.P.A.
R.S.A. LODI VECCHIO - LODI



The proposed intervention aims to build a facility for the non-self-sufficient elderly in the municipality of Lodi Vecchio, providing a total of 240 beds. The socio-medical facility will have a new access road to the area, achieved through the widening of the existing road, featuring designated parking spaces and large landscaped green areas, with the planting of trees and shrubs. Additionally, a new cycle/pedestrian path will be constructed along the southern perimeter of the lot, protected by a line of trees. The building will have a comb-shaped construction typology, consisting of three floors above ground, without basements, covering an area of approximately 12,000 square metres. It will accommodate around 170 staff members dedicated to providing specialised healthcare and comprehensive assistance to the elderly residents. The facades will have a linear design, featuring projecting eaves that extend about 80 cm beyond the building. The window system will have a cohesive appearance, with colour choices helping to soften the static nature of the architecture. The entrance area of the RSA will feature the use of a wooden brise soleil or WPC (wood plastic concrete). The roof will be flat to accommodate the necessary building systems and meet the requirements for a NZEB (nearly zero-emission building). The construction of a new social welfare facility has significant impacts on the local area.

CLIENT:
EDIZIONE PROPERTY S.P.A.
RENOVATION OF THE BUILDING COMPLEX IN PIAZZA AUGUSTO IMPERATORE, ROME



Carron is carrying out the renovation of the former INPS building in Piazza Augusto Imperatore in Rome, owned by Edizione Property SpA, for the transformation of the same building into the future Bvlgari-branded hotel. The architectural complex is located between Piazza Augusto Imperatore and Via della Frezza and dates back to the Fascist period in the 1930s when renovation and redevelopment of the area adjacent to the Mausoleum of Augustus began. Designed by arch. Vittorio Ballio Morpurgo, the building was constructed between 1936 and 1940. Under the strict supervision of the Capitoline Superintendence, the building's redevelopment will involve its transformation into a 5-star luxury hotel with the redesign of the interior spaces, interventions to improve the existing structures, and the creation of the rooms and large public spaces. The building will be equipped with all the plant engineering and design comforts characteristic of such interventions. The existing facades will undergo preservation and restoration work to restore the ancient splendour of their marble and brickwork.

CLIENT:
CDP IMMOBILIARE S.G.R. S.P.A.
NEW YSL COMPLEX IN SCANDICCI - FLORENCE



The project will transform the existing building complex into the new Yves Saint Laurent production plant, with adjoining offices. The existing buildings will be completely redeveloped and there are plans to create public and private parking spaces, carry out landscaping works, and complete and adjust the section of public road.

The complex consists of 2 buildings covering a total area of 29,300 m²; building A is developed over 4 floors while building B has 3 levels. The ground floor will house rooms dedicated to leather cutting and material storage; the first floor is mainly dedicated to assembly and quality control operations; the second floor has offices (bldg A) and prototyping, modelling and finished product rooms (bldg B); finally, the third floor features spaces for training, a conference room, canteen, kitchen, other offices, meeting rooms and facility rooms. The external areas will also be redeveloped with the construction of a new private car park and forecourt (31,000 m²), a public car park (13,900 m²), and the redevelopment of the existing public road system. The works will be carried out according to the LEED protocol (Gold level)

CLIENT:
OSPEDAL GRANDO SRL - TREVISO
CONSTRUCTION OF THE NEW HEALTHCARE HUB IN TREVISO, EXTENSION AND MODERNISATION OF THE CURRENT HOSPITAL.



The project consists in the construction of the new healthcare hub in Treviso, which foresees the extension and modernisation of today's hospital. The project is called the "cittadella della salute" due to the new vision of the healthcare hub, which is based on the simplification, optimisation and modernisation of the facilities and services provided therein.

The hospital macro-area, which represents the core of this project, is the beating heart of the entire hub, offering easy and intuitive access to the four functional sub-areas: the central office area, conceived as the main entrance of the building, as well as the main start and end point of the communication chain; the administrative centre, whose function is quite clear; the macro-centre for the territory, offering the most requested services which will communicate and promote health to as many people as possible; the training centre, in which training, research, and teaching activities will take place through the university; the highly-technological logistics macro-centre, conceived as a large dock, the port of arrival for goods, the production and distribution of energy received directly from the Sile river. All this within a green area extending across 5 hectares.

The operation covers an area of over 167,000 square metres, within which 90,000 square metres consists of new structures, 57,000 square metres of renovations, the achievement of the LEED Italia standard and the use of sustainable resources.

CLIENT:

OPENZONE S.P.A.

CONSTRUCTION OF 'LE TORRI' BUILDINGS WITHIN THE OPENZONE REAL ESTATE COMPLEX
IN BRESSO (MI)



This project is located within the OpenZone scientific campus located in the municipality of Bresso in Milan province. The campus expansion project aims at doubling the existing spaces and number of laboratories, to achieve an overall campus size of 37,000 m² and accommodate up to 1,200 people.

The intervention consists of the demolition of the existing structures, the construction of a four-storey 'piastra' building covering the entire area of intervention, with two storeys below ground. Two towers will be built for use as laboratory offices; these will be linked by walkways for internal movement. The 'piastra' is a large area and is organised around generous common and meeting spaces, meeting rooms, conference rooms, and exhibition and relaxation areas. The entrance atrium will be on the same level, with its double height giving flexibility and quality to the space. There will also be an area dedicated to communication called Open Circle.

The project involves the preparation of BIM construction drawings executed on site by the technical team.

CLIENT:

KRYALOS SGR S.P.A.

RENOVATION OF AN OFFICE BUILDING COMPLEX IN VIALE REGINA GIOVANNA, MILAN



The building is currently divided into two units (street numbers 29 and 27) with dual access from Viale Regina Giovanna and a secondary access overlooking Via Maiocchi.

The two units will be joined to form a single property. The building consists of two main rectangular-shaped bodies, one parallel to Viale Regina Giovanna and the other arranged parallel to the rear of the site. The two buildings will be connected by two transverse bodies: the first on three levels that also closes the site internally, and the second, parallel to the first and placed in the middle, connecting the buildings on two levels. The last volume to close the site overlooks Via Maiocchi, three storeys above ground, arranged obliquely to the other volumes so that it remains parallel to the street. The building facing Viale Regina Giovanna is made up of 6 above-ground storeys, while the interior ones consist of 3 above-ground storeys. The underground floor houses part of the offices, some parking spaces, changing rooms, storage rooms and utility rooms. The project aims to adapt to the current standards required for workspaces, in order to meet the different market demands, whether single-tenant or multi-tenant.

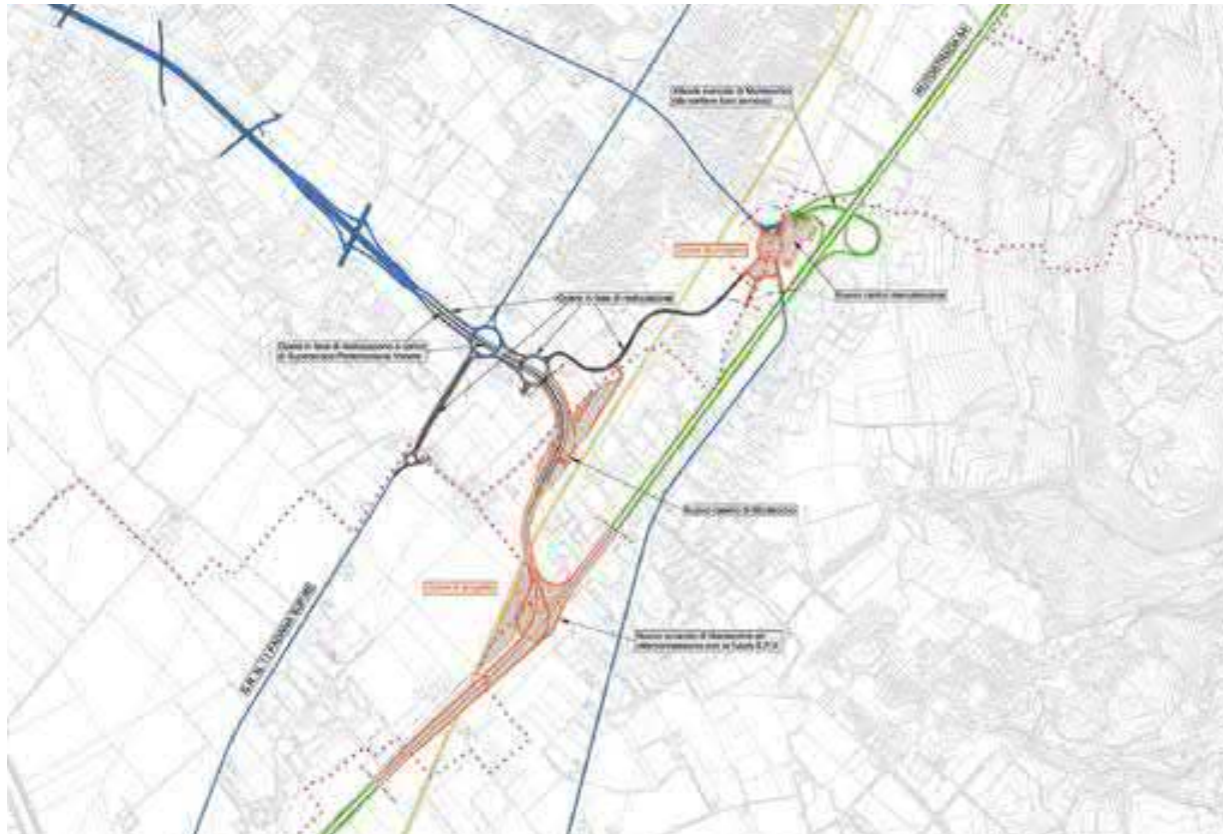
The roof on the top floor will be freed from the installations that currently saturate it, with the plant parts moved to the basement.

The building must achieve LEED Core & Shell v4 certification (Platinum level).

CLIENT:

AUTOSTRADA BR-VR-VI-PD

NEW BUS STATION IN MONTECCHIO MAGGIORE AND LINKS TO THE REGULAR ROAD NETWORK – ROAD COMPLETION WORKS



The current A4 Motorway exit at Montecchio Maggiore is an important motorway junction connecting the primary road system to the regional and provincial mobility system, as well as to the Superstrada Pedemontana Veneta (SPV) motorway. In such a context, therefore, the road system of the present project makes it possible to create a new exit interconnecting the motorway system with the ordinary network, in a different position from the current one and, above all, compatible with the junction of the new Superstrada Pedemontana Veneta, to create a motorway-type interconnection between the A4 and the Superstrada Pedemontana Veneta, to ease the traffic load conditions on the road and existing junctions, and to build a new maintenance centre, larger than the current one, at the current location of the Montecchio Maggiore exit.

It is an extremely complex project due to the significant interactions with the flow of motorway and railway traffic. In particular, it is planned that the motorway site, strongly affected by the construction of the new infrastructure, will be diverted to the south for a stretch of approximately 2,000 m, with a maximum transverse movement of the carriageways of approximately 30 m. This section of the road will be completely resurfaced. The upgrading, reconstruction and new construction of the following road structures will also be carried out: G01 and G02 railway tunnels, Montecchio junction (with motorway flyover, underpass and slip roads) and junction buildings serving all the motorway activities already in operation at the current junction. Lastly, a series of minor hydraulic structures and works for the control and regulation of the existing hydraulic water network.

CLIENT:

PROVINCE OF TRENTO

EXECUTIVE DESIGN AND EXECUTION OF CONSTRUCTION WORKS FOR THE 1ST EXPANSION STAGE OF THE TRENTO 3 PURIFICATION PLANT



The project concerns the construction of a purification plant for sewage from the municipal sewer system serving the drainage basin comprising the municipalities of Aldeno, Besenello, Calliano, Cimone, Garniga, Trento and part of Villa Lagarina for a total population equivalent of 300,000 inhabitants (site I + II).

In short, the project involves the construction of a screening and initial lifting structure, a purification plant, the main work (ground surface area 34,000 m²), a new section of state road to replace an existing one interfering with the purification plant (1000 lm plus junctions and connections), and a collector sewer network for final discharge of treated effluent into the Adige River.

The work, which is of primary importance and interest for the entire Autonomous Province of Trento, represents a cutting-edge structural and landscape intervention. The intervention area will be fully integrated into the surrounding environment by masking and covering the structure with the replanting of previously removed native flora.

The cutting-edge technological, plant engineering and energy content make the Trento Tre purification plant unique in the municipal sewage treatment industry.

MAIN DELIVERED PROJECTS



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CLIENT:
KRYALOS S.P.A.
DEMOLITION AND CONSTRUCTION OF A BUILDING ON VIA GATTAMELATA IN MILAN



The project includes, first of all, the demolition of the existing buildings, which occupy the whole perimeter of the lot, consisting in 9 above-ground levels and two underground floors. Then, a new office building will be implemented, consisting of 2 floors below-ground which will be used as garage and technical premises, with a gross surface area of 3,870 square metres per floor, and an above-ground area divided into three interconnected buildings that rise up 8, 11 and 14 floors respectively, with a gross surface area of 22.700 square metres. On the inside, the building opens up on two main halls, where the main staircases of the complex are located. The shape of the ground floor can thus allow both to divide the building in two big sections and to use one of the above-mentioned halls, if case be, as the main one and, accordingly, the other one as the secondary one. The first floor of the complex has a hybrid shape, divided in office premises and meeting areas, while the remaining above-ground floors are entirely for office purposes. The building will be awarded Platinum-level 2009 LEED Core & Shell Certification

CLIENT:
SAVILLS I.M. S.G.R. S.P.A.
OPEN 336 BUILDING



The new office building in Viale Sarca fits in continuity with the development of the Bicocca district, a former industrial area in the north-east area of Milan. The building, whose facade interprets the chromatic mood of the area, consists of 2 underground floors used for parking, a ground floor with ancillary areas (entrance hall, meeting rooms, utility rooms, etc.), 4 above-ground floors of office space, and a roof with the function of a technical floor (air treatment unit, photovoltaic system, pressurisation system). The total surface area covers 8,900 square metres. The 2 underground floors will be delivered finished while the above-ground floors will be delivered core & shell with only the staircases, lifts and bathroom block completed. The design of the facade sees the distributed use of pilasters and stringcourses made of coloured fibre cement in a pinkish-orange shade reminiscent of brick. The load-bearing structure of the building is made of reinforced concrete. The vertical structures consist of three load-bearing staircases, pillars, walls and bracing elements. The decks are made using solid reinforced concrete slabs with U-Boot formwork. LEED and WELL certifications are provided for.

CLIENT:

H-FARM - TREVISO

NEW SCHOOL-CENTRAL OFFICE CENTRE FOR THE H-CAMPUS IN RONCADE (TV)



Located in Roncade, in the province of Treviso, on the Tenuta Ca Tron of H-Farm, on the Venice lagoon, the H-Campus project is destined to create the most significant innovation and training hub in Europe, offering education from primary school to specialisation courses (from 6 to 25 years), with a focus on the digital, the English language and entrepreneurship. Project figures: about 23,000 square metres of new spaces, out of a total of more than 50 hectares, that will be able to accommodate 3,000 people, with 1,800 students.

The project, financed by a real estate fund, involved the expansion of the current area occupied by H-Farm, which currently covers 14,000 square metres of buildings and 12 hectares of parkland, with the addition of a further 31 hectares of land, within which approximately 23,000 square metres of new buildings have been constructed. It is a sustainable project, completely self-sufficient in terms of energy and landscaping: the structure is an integral part of the campus.

The works proceeded at a fast pace with peaks of 350-400 workers a day to ensure delivery of the buildings and their green spaces in time for the start of the of the 2020/21 school year.

CLIENT:

SERICON INVESTMENT FUND

RENOVATION OF THE "CORTILE DELLA SETA" BUILDING, MILAN



The intervention was carried out on the historical building called "Cortile della Seta, which features a courtyard shape, in the centre of Milan, built at the end of the XIX century. Carron is overseeing the building's renovation project, as well as the renovation of the curtain walls and the widening the windows on the sides facing the street. Furthermore, the works include the demolition of the roof and the construction of an additional floor and the implementation of a new glass roof, built with a series of sheds of different sizes near the main lounge area: this will allow to enhance natural light filtering and to adjust air exchange. The building will consist of 1 underground and 6 above-ground floors for a surface of about 23,800 sqm. The building will achieve the GOLD-level LEED Core&Shell 2009 certification.

CLIENT:

G.R.E. SRG (GENERALI REAL ESTATE) - MILAN

REDEVELOPMENT OF THE EXECUTIVE BUILDING IN VIA CHIESE, MILAN



The property on Via Chiese 72-74 is located in the Bicocca district, east of the great transit road Viale Fulvio Testi in Milan. The building in question consists of 8 floors above ground and 1 basement level with a total surface area of 11,000 square metres. Before commencing with the redevelopment works for the property, intensive internal removal and demolishing activities were completed. This was followed by operations which optimised the flexibility and divisibility into units for individual tenants, with the realisation of new interior finishes, a new layout of pathways and service blocks. The following steps focused on the optimisation and adaptation of the technological system, with a new plant and a new set of measures to control energy, so as to ensure the building falls under Class A3. Finally, the façades were renewed by restoring the appearance of the building, with a new architectural design that took into consideration the energy performance, the flexibility and characteristics of the work spaces.

The building falls under the Platinum Level LEED class.

CLIENT:

COIMA SGR SPA - COIMA OPPORTUNITY I - MILAN

CONSERVATIVE RESTORATION OF AN OFFICE BUILDING IN VIALE SARCA 235, MILAN



The building is located in Viale Sarca 235, Milan. The intervention involved the redevelopment of the building, the underground car park and the related external works. The renovation project has enhanced the qualities of the existing building; the existing curtain wall system was replaced with a new façade characterised by transparency, modularity, simplicity and clarity of form. The building is equipped with two external staircases that have been renovated, with two new staircases added to these. As part of the works, the mechanical, electrical and special systems have been redeveloped.

CLIENT:

KRYALOS SGR S.P.A. - MILAN

RENOVATION OF PALAZZO "EX POSTE" IN PIAZZA CORDUSIO, MILAN



Restoration of the former Palazzo delle Poste in Milan which hosts the first Starbucks in Italy. The restoration works on the Kryalos complex ended in December 2017, adapting the building complex to modern needs. The intervention is characterised by the combination of enhancing the historical complex designed by architect Broggi and innovation, with new interior layouts and functional and aesthetic improvements. The general redevelopment project for the compendium, consisting of two buildings, was aimed at redefining the internal distribution of the spaces so as to adapt them to the pluri-tenant logic, thus rendering them usable by various conductors. Originally designed by architect Luigi Broggi, the internal room with double-height ceilings that was once the Post Office agency headquarters has been profoundly altered, having been restored to its original configuration by the removal of a mezzanine floor, which was a visual interference in the general perception of the room as a single environment. Carron is acting as General Contractor, at the forefront when it comes to solving any unforeseen issues. The operation has enhanced the property from a functional and aesthetic perspective, eliminating the superstructures and enhancing the open-air space inside the lot with a new "garden" set-up typical of Milanese courts.

CLIENT:

HINES ITALIA RE S.R.L. - "BVK HIGHSTREET RETAIL CORDUSIO S.P.A." FUND

BUILDING RENOVATION IN PIAZZA CORDUSIO 2 (HINES, UNIQLO)



Redevelopment of the building, consisting of 6 floors above ground, an attic and an underground floor, saw the overall renovation of the building aimed at a new functional redistribution of the general layout. The building renovation project, covering a total surface area of approximately 14,000 m², involved the following interventions: adaptation of the real estate asset according to contemporary performance standards; creation of retail spaces on the ground and first floors; performance adaptation and streamlining of the internal flexibility of the office spaces from floors two to five; recovery of the sixth floor and creation of new living areas; system and performance efficiency improvements; upgrading of the building to comply with fire prevention regulations; structural alterations to improve layout flexibility; renovation of the vertical accesses; renovation of existing facades aimed at improving energy efficiency and the overall restoration of the building. The building will be LEED certified - GOLD level.

CLIENT:

FINAQUILA S.R.L. - HOTEL LOCARNO ROME

RENOVATION AND REDEVELOPMENT OF HOTEL LOCARNO IN ROME



The building complex, for hotel use, consists of building A, with 6 floors above ground and an underground floor, building B with 4 floors above ground and an underground floor, building C with a single floor and finally a communal courtyard bordered by the 3 buildings.

The works in question were carried out on 44 rooms of the 5-star category hotel complex, with a surface area of approximately 4,600 m². In particular, the renovation of the building was focused on finding a compromise between respecting the characteristics of the existing envelope and the need to recover the building for its current use. The intervention on the building structure consisted in maintaining the existing external wall envelope, by means of simple maintenance work for the refurbishment of plastering and paintwork, with a new internal layout of rooms, adaptation to current regulations for overcoming architectural barriers and adaptation of systems for the new layout of the structure itself.

CLIENT:

BULGARI GIOIELLI S.P.A. - VALENZA (AL)

CONSTRUCTION OF A BUILDING FOR JEWELLERY PRODUCTION AND RELATIVE OUTBUILDINGS AND INFRASTRUCTURE WORKS IN VALENZA (PROVINCE OF ALESSANDRIA)



The works involved the construction of a new jewellery manufacturing facility with outbuilding for office use in the municipality of Valenza in the province of Alessandria. The production complex is one of the largest in Europe and can contain over 700 workers. The plot is part of a larger complex that provides for the redevelopment of the entire area with the construction of an exhibition area, a new road system and new standards. The contract also included the construction of a new access road via the existing roundabout and two public car parks with a total capacity of approximately 130 parking spaces. The new road system ends just beyond the entrances to the car parks at the entrance to the new production site. The road continues inside the private property where the employee car parks are located. The project was drawn up according to the LEED 2009 Italia for New Construction and Major Renovations protocol and has reached the LEED Silver standard.

CLIENT:

UNIVERSITY OF PADUA

RESTORATION OF THE "FORMER GERIATRIC HOSPITAL" COMPLEX FOR THE CONSTRUCTION OF THE NEW HEADQUARTERS OF THE UNIVERSITY OF PADUA'S HUMANISTIC DEPARTMENT



The project consisted in the redevelopment of the former geriatric hospital, with a change in intended use. It now houses a new humanities centre for the University of Padua, with libraries, classrooms and department offices. The proposal for the new humanities department was structured on the basis of three principles: the utilisation and recognition of the sequence of open spaces, the redevelopment of the historic features and merit of the area of operation and the urban reconnection of the new complex with the surrounding development. The first theme concerned the arrangement of the Cloisters and courtyards, through a study of the spaces and pathways that will mark the new library hub that will be housed within the 19th-century part. The second theme concerned the interior spaces of the 19th-century structures in reference to their original presentation, subsequent evolutions and current requirements. The third theme concerned urban reconnection, a key issue for the entire complex and natural consequence of the change in use from once being a geriatric facility. The complex is split into 2 lots: Lot A with 12 building bodies and Lot B with 5 constructions covering an area of 14,738 square metres.

CLIENT:

GUCCI LOGISTICA S.P.A. - SCANDICCI (FI)

COMPLETION OF A NEW LOGISTICS HUB IN SCANDICCI



The new logistic hub of excellence, Gucci ArtLab, falls into the context of the restoration of an abandoned industrial site. It is a large production and management complex, completed in December 2017 and inaugurated in April. The buildings have a total surface area of approximately 40,400 square metres, across an overall area of about 47,300 square metres.

Carron has coordinated all works, completing the finishes on the interior and the pre-existing central building systems, in addition to undertaking to complete the seismic improvement of the existing structures in reinforced concrete. The project was drafted according to the LEED 2009 protocol, with a Gold level of certification having been achieved. The new production centre dedicated to leather goods and footwear contains areas for research, machinery, robotics and hand-working, with a total workforce of around 700 people.

CLIENT:
CARRON CAV. ANGELO S.P.A.
IMPLEMENTATION OF NURSING HOMES IN NICHELINO, TURIN



New rectangular building consisting of an underground floor of approximately 1500 m² and 6 floors above ground for a total of approximately 10,000 m². It features a flat roof that houses technological systems, underground areas for parking and part of the storage facilities, services, etc. There are 4 elevators and a central stairway to connect the floors, and 2 external iron fire escape stairs. Green space, pavement and surfacing works have been carried out in the private outside area of approximately 3,300 m². There is another area of approximately 10,000 m² for tax deductible OOU works in which the road system in front of the building has been redeveloped, with a new roundabout and pavements, a car park with 50 parking spaces, a cycle lane, new surfacing works, new underground utilities, and an underground culvert for water drainage. The building is intended for use as a residential care facility with a total of 180 beds divided into 100 double and single rooms, with prefabricated bathroom units for inpatient rooms.

CLIENT:
BOTTEGA VENETA S.P.A.
DEVELOPMENT OF CORPORATE AND PRODUCTION HEADQUARTERS



The new headquarters, not far from the castles of Montecchio Maggiore, includes a 55,000 m² park and an 18th-century historic palazzo (Villa Schroeder-Da Porto) protected by Italian architectural heritage laws. In the conservative restoration of the palazzo, the façade in local stone, gateways, columns, statues and fountains have been retained, but the building has been extended with a new structure. In carrying out the work, particular attention was paid to the existing building structures which have been restored using 75% of them, as well as to construction materials coming from within a minimal distance of the palazzo, to the exclusive use of wood certified by the Forest Stewardship Council, and to the detailed separation of waste produced. To allow the terrain to thrive as in the past, particular attention was paid to the recovery of pre-existing nature by using certified materials and plants. The presence of greenery is only the first of a series of benefits dedicated to Bottega Veneta workers. Indeed, the most important aspects of the project are linked to the environment and are aimed at limiting the use of water, artificial lighting and overall energy saving. The most significant initiative in this sense is the 1,200 m² of photovoltaic panels installed on the roof of the palazzo, as well as the rainwater recycling and heating and air conditioning systems based on underground heat exchange to minimise CO₂ emissions. Bottega Veneta has obtained LEED New Construction and Major Renovations certification at the highest achievable level – Platinum, becoming the first company in the world in its sector to do so.

CLIENT:
ZAMBON IMMOBILIARE S.P.A.
REDEVELOPMENT OF THE 'EX BOCCARDO' BUILDING IN BRESSO, MILAN PROVINCE



The renovation and widening of the "ex Boccardo" building has recently been completed, giving rise to the new "C3 ex Boccardo" executive office building inside the Zambon Campus in the municipality of Bresso, Milan.

The new complex consists of 3 factory units, the Office Body (management offices and meeting rooms), the Open Circle (conference room) and the Avant-corps (entrance).

The operation lot has an area of around 4,900 square metres and featured a logistics warehouse. Some of the existing warehouse constructions have been preserved, whilst others have been demolished.

The new building is split over 2 floors above ground, with a total area of about 4,600 square metres. The office body is comprised of an existing portion to be renovated and a new section with a prefabricated structure. The Open Circle consists in a metal carpentry structure and glass dome. Finally, the Avant-corps has reinforced concrete structures cast on site and a wooden cover. The outer shell of the new complex consists in glazed façades with pillars and steel beams. Once the works are completed, Carron will deliver the As-built Model drafted in BIM, organised for the purpose of Facility Management of the new Zambon office building.

CLIENT:
PIZZATO ELETTRICA - MAROSTICA (VI)
NEW CERAMICS COMPANY HEADQUARTERS UNDERWAY IN MAROSTICA (VI)



The project involved the construction of the new headquarters for the company Pizzato Elettrica, a leading company in the construction of position switches, limit switches, micro-switches and safety switches. Two new buildings were constructed, differentiated in terms of function and connected by walkways, as well as internal pedestrian pathways and driveways on the lot. The building that houses the offices is rectangular in shape, with the longest side overlooking Corso della Ceramica, whilst the production structure, square in shape, is within the lot. The space between the two factory bodies, being approximately 13 metres, is characterised by an extensive void ensuring good illumination and ventilation for the overlooking rooms. The production building will have three levels, two being above ground and one below ground. The office building, which also contains a number of workshops, is split into three levels above ground and two below ground. Both buildings have been designed to be easily enlarged into the southern areas of the lot used for greenery, should future expansion be required. The total area of the project is approximately 28,000 square metres of new construction, divided into a 22,500-square-metre production building and 5,500-square-metre office building.

CLIENT:

PATAVIUM S.R.L.

RENOVATION AND RESTORATION OF THE HISTORIC PALAZZO ROCCABONELLA IN PADUA



This intervention is in the heart of Padua, in Via S. Francesco in one of the oldest historical buildings of the city centre, a few steps from Prato della Valle, the Basilica of St. Anthony and the Bo Palace. It consists of the conservative restoration of the listed Palazzo Roccabonella, which dates back to the end of the 15th century and was further enlarged in the 18th century. With its generous dimensions and the approximately 900 m² of courtyard with garden, the building will give rise to 30 housing units, 49 underground garages with two-way access camouflaged in the garden, 2 commercial spaces and a gym reserved for residents.

The project is the perfect trait d'union between the most austere conservative restoration, it being one of the most treasured and impressive buildings in Padua, and the advanced design with the use of instruments such as 3D laser scanners, Scan to BIM process and BIM modelling, running along a dual and parallel track: history and technology, tradition and innovation.

CLIENT:

CARRON CAV. ANGELO S.P.A.

RSA LINGOTTINO - TURIN



The project led to the redevelopment and repurposing of the historic Lingottino in Turin, a building that once housed the body shop of the old Lancia factory.

Carron took on the real estate development of two residential care homes in the San Paolo district of Turin, named Issiglio and Lancia, each with 200 beds, in addition to various services (kitchen and laundry).

The new RSAs span four above-ground floors and a basement, covering an area of more than 24,000 square metres, of which 18,500 are above ground. Approximately 300 people work in the two residential care homes, providing the elderly with specific care and comprehensive health assistance.

Through this urban regeneration project, Carron has succeeded in creating a place of rebirth and inclusion for the non-self-sufficient elderly. The new RSAs have spacious rooms and ensure optimal management of common areas. The project has preserved the distinctive and representative features of Turin's industrial buildings from the 1970s, such as the large glass surfaces, while meeting acoustic, thermal, and low environmental impact requirements. Within the facilities, the humanisation of spaces is promoted by the presence of areas dedicated to social and relational activities, with environments redesigned according to a new model of hospitality, adapted to recent prevention and safety measures (COVID-19). Other important aspects of the project include the recovery and creation of outdoor spaces, such as a large green area on Via Issiglio, and small, intimate courtyards for greater psychophysical and sensory wellbeing of guests and family members.

CLIENT:
CARRON CAV. ANGELO S.P.A.
COMPLETION OF NURSING HOMES ON VIA MAROCHETTI - TURIN



Renovation of two specular buildings of 5 floors above ground and a basement level, separated by an internal communal courtyard and centrally connected on the ground floor by a covered structure in reinforced concrete and via the basement with a tunnel. The operation consisted in the functional recovery of the two buildings with the construction of two distinct Residential Care Facilities having 200 beds each, referred to as the "Residenza Massimo D'Azeglio", with its main entrance from Via Marochetti no. 11 and the "Residence Parco Valentino" with its main entrance from Via Chiabrera no. 34. Between the two buildings, the internal condominium courtyard was retained for the use of the structures. From a construction point of view, the buildings feature a solid reinforced concrete structure, external hollow walls and a flat roof, which is unusable. The external surfaces of the facades are covered with travertine slabs.

The complete renovation of the building consisted in demolition interventions and removal of all the walls and internal partitions, structural reinforcement, redevelopment of the external facades, remake of all the internal finishes and implementation of new mechanical, electric and special systems.

CLIENT:
HOTEL EDEN SRL - ROME
RENOVATION AND REDEVELOPMENT OF HOTEL EDEN ON VIA LUDOVISI IN ROME



This Dorchester Collection property houses Hotel Eden, located in Via Ludovisi 49 on the corner with Via Porta Pinciana in Rome's historic centre. It is a highly urbanised context that is heavily frequented by tourists. The hotel is spread over six floors above ground and one below. All the ground floors are intended to be used for hotel accommodation, whilst the 6th and top floor contain the restaurant "La Terrazza dell'Eden" as well as the Penthouse suite. Stage 1 of the contract concerned the demolition and strip out works in general. Stage 2, rather, has led to a complete redevelopment of the building, both in terms of the civil and structural works and the installations. The structure has been classified as 5 Star Luxury.

CLIENT:

BNL GRUPPO BNP PARIBAS

RESTRUCTURING AND REDEVELOPMENT OF THE BNL BUILDING IN ROME



Complete restructuring of a complex built in the early 1960s, with a focus on redevelopment and energy efficiency, to achieve Class A1 classification. Carron was responsible for the overall coordination of the worksite, along with all construction works. The intensive activities, which began in August 2017, were concluded in September 2018. It was a very extensive construction site spread over 10 floors, with 2 being underground, one on the ground floor and 6 above ground. In all, there is a total surface area of about 40,000 square metres.

As part of a 100% redevelopment project, an extensive environmental remediation campaign has seen the building obtain asbestos-free certification. The company Engineering Spa has leased the property owned by BNL Paribas Group. The site has been studied in great detail in terms of the design and programming of the works, in order to optimise the resources enacted and to reduce the time of execution.

CLIENT:

ALLIANZ S.P.A. - TRIESTE

ARCHITECTURAL AND FUNCTIONAL REDEVELOPMENT PROJECT WITH CHANGE IN INTENDED USE



The former headquarters of Ras, now Allianz, in Trieste was the subject of a restoration and conservation project that included a set of works aimed at partially converting the building into a hotel belonging to the Hilton chain. The building, the refurbishment of which restored its original splendour, falls under assets subject to protection, for which each operation is subject to the requirements of the Superintendence. During the works, the building was partly occupied by businesses that were not involved in the project. Since visibility and accessibility had to be ensured, a cantilevered scaffold was erected on the shop facades, while a pedestrian tunnel was built along the other facades. The structural operations, the building works, the restoration and installation - each aspect has been initiated by considering both the coherence with the prestigious architectural and cultural context of the city, along with availing of the most innovative solutions in the management of spaces and services.

CLIENT:

MANIFATTURA BERLUTI - FERRARA

CONSTRUCTION OF A NEW PRODUCTION PLANT IN GAIBANELLA (PROVINCE OF FERRARA)



Carron built the new plant commissioned by Manifattura Berluti for the manufacturing of its products, within a plot located in the town of Gaibanella to the south of Ferrara. The building was constructed within a larger plot of land used for agriculture. The building is characterised by the presence of two distinct structures: the main building for production and management activities, and the second, smaller one for the technological systems functional to the building. The designer chose to give these buildings an extreme integration with the surrounding space and the natural environment.

CLIENT:

SALVATORE FERRAGAMO S.P.A.

CONSTRUCTION OF THE NEW FERRAGAMO Q BUILDING IN FLORENCE



The works in question included all underground utility shut-off works, the removal of installations and the entire demolition of the buildings named R-L-Q in preparation for construction of the new building named Q.

The new building has a usable surface area of approximately 10,000 m² and consists of an underground floor for use as a car park and four above-ground floors with the ground floor for storage, retail and reception area use and the remaining three floors for office use. The structural platform consists of metal beams and ceilings completed with castings. The façade offers very high insulation performance levels while high quality finishes were chosen for the interiors.

The building is equipped with ordinary and special systems of a high technological level. Attention to quality was a priority during all phases of the building process from design to construction, resulting in LEED Platinum certification.

CLIENT:

KRYALOS SGR S.P.A. - MILAN

CONSTRUCTION OF A NEW BUILDING TO COMPLETE THE PIRELLI CAMPUS IN MILAN



The completion of the "New Pirelli Offices and related services building", between Via Sarca and Via Piero and Alberto Pirelli in Milan is the final missing component to the layout of the executive Pirelli Campus, where the Headquarters are located. As part of this project, the historical headquarters of Pirelli's executive offices were demolished, with the construction of a contemporary building for use as offices and meeting rooms, internal training rooms for Pirelli employees and the company dining hall. The operation took place within the Bicocca district. The Campus consists of a series of buildings that mark the corners of the area, whilst the interior space is characterised by a charming secret garden. In addition to the newly-constructed buildings, the elements of the historic buildings of the Bicocca degli Arcimboldi and the Fondazione Pirelli stand out. The new building harmoniously integrates within its context, in dialogue with the historical and contemporary buildings, in continuity with the past and future.

CLIENT:

ALLIANZ S.P.A. - TRIESTE

REDEVELOPMENT OF THE HISTORICAL ALLIANZ LOCATION ON LARGO UGO IRNERI IN TRIESTE



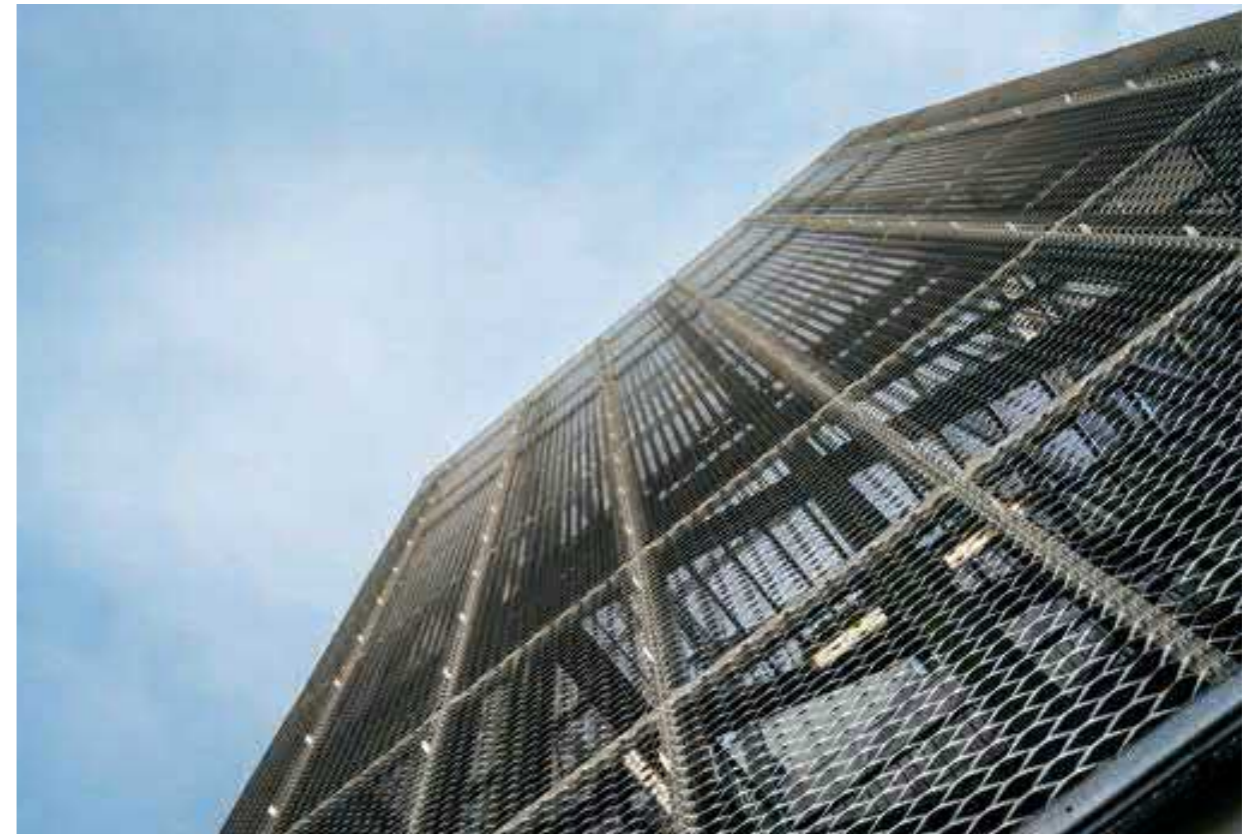
The intervention involved a central structure named H, consisting of 6 floors for the central part and 5 for the four perimeter wings, and two separate structures at the back named A and B respectively. During the renovation work, the continuation of activities on site was ensured. The redevelopment involved 35,645 m² of which 34,355 m² concerned building H and 1,290 m² building A. Approximately 28,000 m² are for office space. The mechanical and electrical systems were entirely renovated, with a view to energy efficiency. The mechanical and electrical systems were entirely renovated, with a view to energy efficiency.

CLIENT:
PROVINCE OF MANTUA
REDEVELOPMENT OF THE FORMER SS 236 GOITSE / NORTHERN RING ROAD OF GUIDIZZOLO



This is a strategic project worth 48,448,000 euros, with 41.3 million euros of funding from the Lombardy Region and the remainder from the Province of Mantua. The infrastructure affects three municipalities: Guidizzolo, Cavriana and Medole. It makes the road network in the area north-west of Mantua more efficient, helping to relieve even heavy traffic from built-up areas, thus improving road safety and the quality of life of citizens. It is a significant and complex work, consisting of overpasses, underpasses, tunnels and roundabouts with a limited impact on the landscape thanks to the positioning of the new ring road completely in trenches, which involved around 600,000 cubic metres of excavation.

CLIENT:
ZAMBON IMMOBILIARE S.P.A.
EXPANSION OF ZAMBON HEADQUARTERS IN VICENZA



Zambon SpA, owner of the pharmaceutical plant located in Via della Chimica 9 in Vicenza, intends to develop the expansion of the production facility with a new build in the southern portion of the site, comprising three above-ground storeys. The building will be constructed in the vacant area to the south of the plot. It will have three storeys above ground and will be built adjacent to the existing south-facing building, so that it is directly connected to the existing complex. The purpose of its construction is to increase the plant's production capacity, with three floors dedicated to production and other areas for future expansion. There will also be a technical penthouse on the roof, an area equal to roughly one third of the building's floor area, with the sole function of housing the plant engineering systems for production.

CLIENT:
DIESEL S.P.A.
NEW DIESEL HEADQUARTERS IN BREGANZE, VICENZA



Conceived with a multifunctional logic and multiple uses in mind, the new Diesel headquarters in Breganze was built by Carron Group with the intention of creating a fully-fledged village. Next to the offices there are plans for a nursery and kindergarten, indoor garden, sports facilities (football pitches and a gym), bar, auditorium and osteopathy clinic. All in the name of respect for the environment and well-being in the workplace. The project developed by Studio Ricatti of Vicenza is on a human scale. The structure, featuring fluid architectural volumes and transparent materials, is singular, harmonious and functional, thanks also to the series of pedestrian footpaths and overhead walkways that connect the various spaces. The design of the buildings is characterised by the centrality of light as an architectural and symbolic element. Large glass surfaces allow natural light to enter and spread through every room. The light sources blend harmoniously and elegantly, providing optimal visibility at any time of the day.

CLIENT:
CARRON CAV. ANGELO S.P.A.
IMPLEMENTATION OF SOCIAL HOUSING IN TURIN



The above-mentioned interventions refer to the construction works of the building complex in Strada della Pronda in Turin. The first lot consists in the implementation of a building, featuring 11 above-ground floors and 2 underground levels. The above-ground levels (from level 1 to level 11), instead, will be developed as social housing for a total of 129 accommodations. In the 2 underground floors, finally, there will be 129 individual garages belonging to each accommodation (second underground floor). The ground floor will house a commercial complex, covering about 4,000 sqm, of which 2,500 sqm will be used for a supermarket and 118 parking spaces to be used by the commercial business (first underground level). Work completion is scheduled for 2020.

In the spirit of sustainability, we chose
to produce this Report in a limited edition on
paper sourced from responsibly managed forests.

Photos: Carron Archive



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