

# SUSTAINABILITY REPORT 2022



## **Tecnostrutture s.r.l.**

This report, which will be updated every year, has been approved by the Board of Directors of Tecnostrutture and has been verified by the independent body Intertek Italia S.p.A., as stated in the asseveration letter on page 85.

## **SUSTAINABILITY REPORT 2022**

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# Letter to *stakeholder*

In 2022 we consolidated a business strategy business strategy that for many years now has been looking towards sustainability and innovation.

Transparency towards stakeholders is an essential principle that guides our company in all its activities and that also translates into the decision to draw up a voluntary annual sustainability report, a document that recounts our path in the ESG domains, i.e. those concerning the environment, social issues and governance.

Analysing the impacts of our activities, we have identified three main sustainability macro-themes, to which we will be committed in the coming years. Firstly, the generated value, which includes significant elements such as economic solidity, loyalty and transparency, research, innovation and customer satisfaction. Yet central is also environmental responsibility, which finds declinations in the circularity of raw materials and in products that aspire to greater sustainability. Finally, social responsibility with the promotion of health and psychophysical wellbeing of the workers, training and involvement in associations.

Subdivisions simplify the understanding of complex processes, but understandably these three areas are intertwined in several ambitious projects. People and the environment, for example, are both central to our goal of creating products with a lighter footprint: thus, since 2019 our two guiding references are the involvement of all resources and the measurement of impact throughout the life cycle by means of the LCA methodology.

This scientific method of measuring environmental impacts has become a lever for innovation, eco-efficiency and the implementation of circular economy practices, providing a pool of information from which to draw for communication activities based on reliable and verifiable data. From this approach stem, for example, the 2022 activities focused on the analysis and improvement of the supply chain and end-of-life of our products, the most environmentally impactful moments and those on which we have the greatest potential for improvement.



The Sustainability Committee is another example of this interplay: a contact person for each department allows us to circulate the guidelines of the cultural change that is taking place. The Steering Committee made up of senior representatives in the fields of green building, human resources and civil engineering, also supports us in defining the strategic choices in terms of sustainability.

The involvement of people has therefore initiated a cultural change based on transparency accountability and activities in favour of local communities.

This is the path we have undertaken and on which we continue with determination, consolidating the activities we have started and aiming at making them fully integrated into the corporate culture and processes.

**Franco Daniele**

CEO & Founder Tecnostrutture srl



**Giulia Daniele**

Board Member Tecnostrutture srl  
Managing Director Tecnostrutture GmbH



# Intervention of the Sustainability Steering Committee

The reporting of ESG aspects, which started with the 2021 sustainability report, is for Tecnostrutture a further step in consolidating a business strategy that has been looking towards sustainability and innovation for some time now. The company was in fact founded with the aim of industrialising the construction sector, a drive that has made Tecnostrutture at the forefront in the Italian context and competitive on international markets. Its business model is also embodied in the particular attention it pays to the environmental performance of its products; an aspect that has become indispensable. Indeed, the use of mixed structures makes it possible to reduce the amount of raw materials and consequently the environmental impact, as shown by the Life Cycle Assessment (LCA) carried out in collaboration with the University of Genoa.

A new and crucial challenge now lies on the path of Tecnostrutture: reducing the end-of-life impact of its products. In 2022, a thesis was carried out in collaboration with the university of which I am a representative, with the aim of devising a new construction system according to the principles of Design for Disassembly, which envisages taking the deconstruction phase into account right from the design stage, thus making it more efficient, cost-effective, and facilitating the recycling of materials. The ultimate aim of

Design for Disassembly is, however, the reuse of the components and this is the next step that Tecnostrutture needs to make in its design. Technological innovation must, however, be accompanied by legislation on the reuse of components. As of today, it does not exist, and it is up to companies to demand it. This could trigger a significant change in the construction sector, laying the foundations for a system more in line with the principles of the circular economy and the concept of product as a service, in which builders can have more control over the end-of-life of their products.

**Chiara Calderini,**

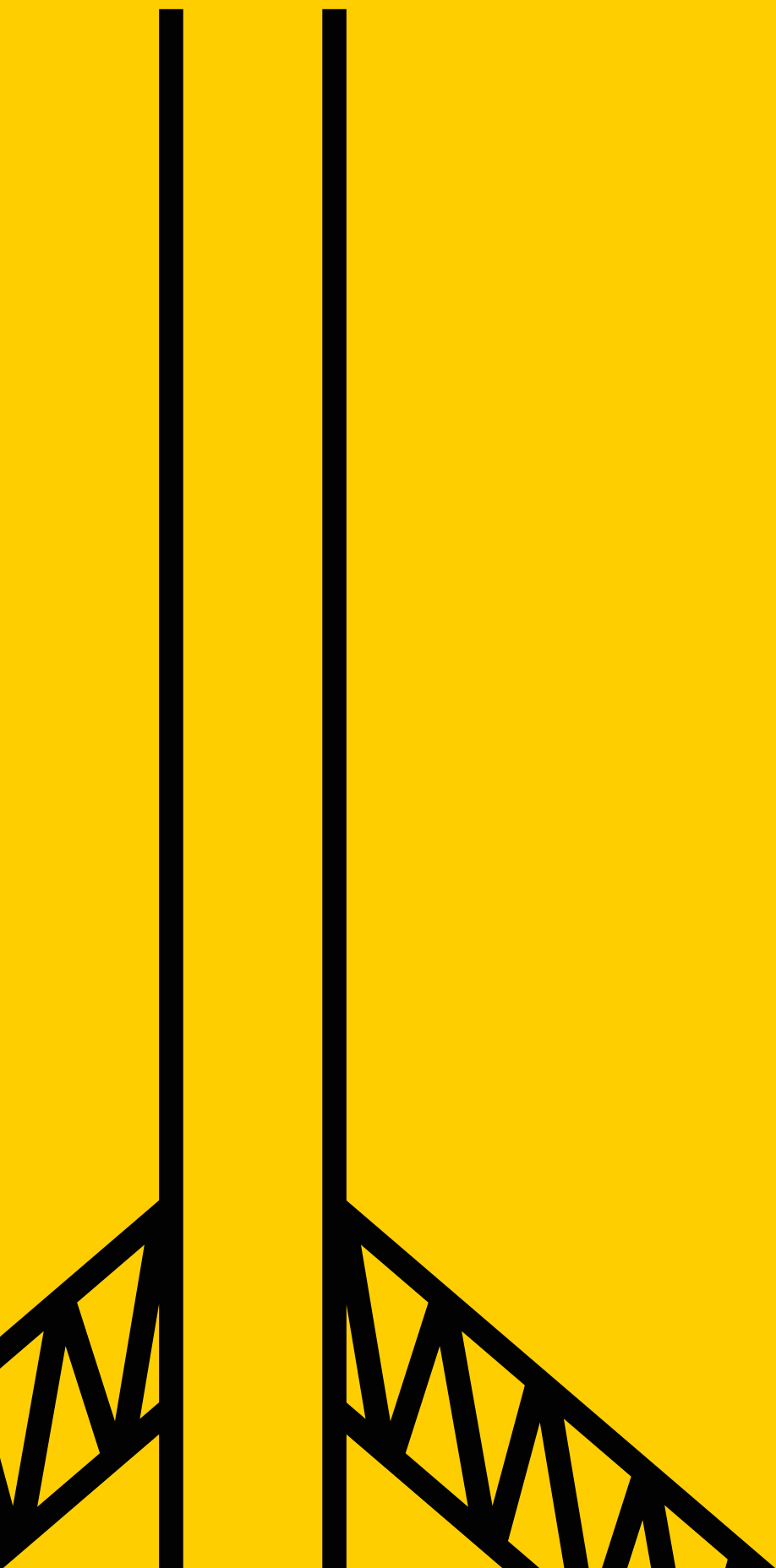
**Associate Professor at the University of Genoa**







# Chapter 1



**For almost 40 years we have been producing semi-prefabricated elements composed of a mixture of steel and concrete, offering highly specialised skill and experience. This way we have established ourselves as a leading player in the construction sector in Italy, but we are also increasingly present abroad thanks to our efforts, supported by various university bodies, in researching and developing new solutions. A considerable investment, with which we want to be promoters of change and encourage innovation and industrialisation in construction.**

# About us

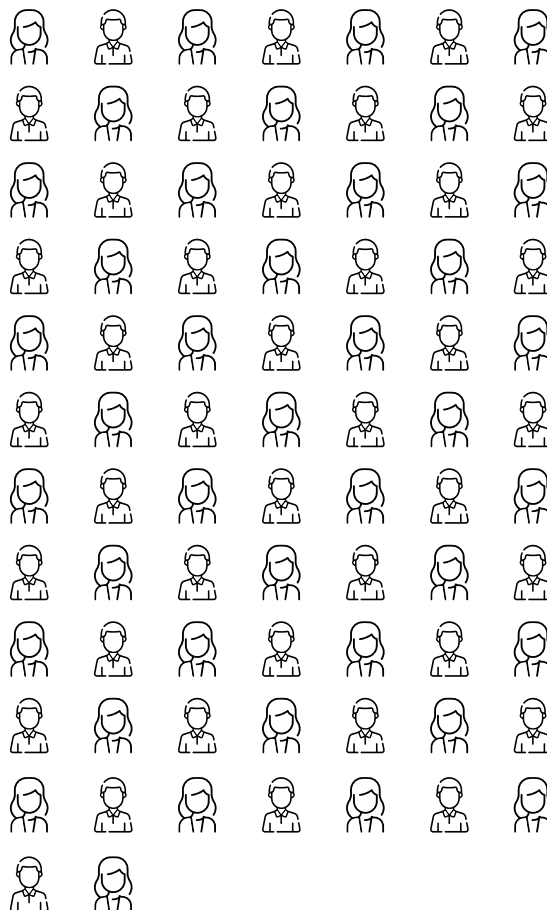
## 1.1 Our history and our values

Our journey began in 1983, when Franco Daniele and Maria Angela Cerchier founded Tecnostrutture in Eraclea, the town that hosted our headquarters for 12 years before moving to Noventa di Piave in 1995. Since then, began a journey filled with achievements and challenges that has made us a benchmark in our field.

## Our numbers in 2022

79

Employees



130

Projects in Italy and in Europe



€ 30.099.291

Turnover



€ 200.000

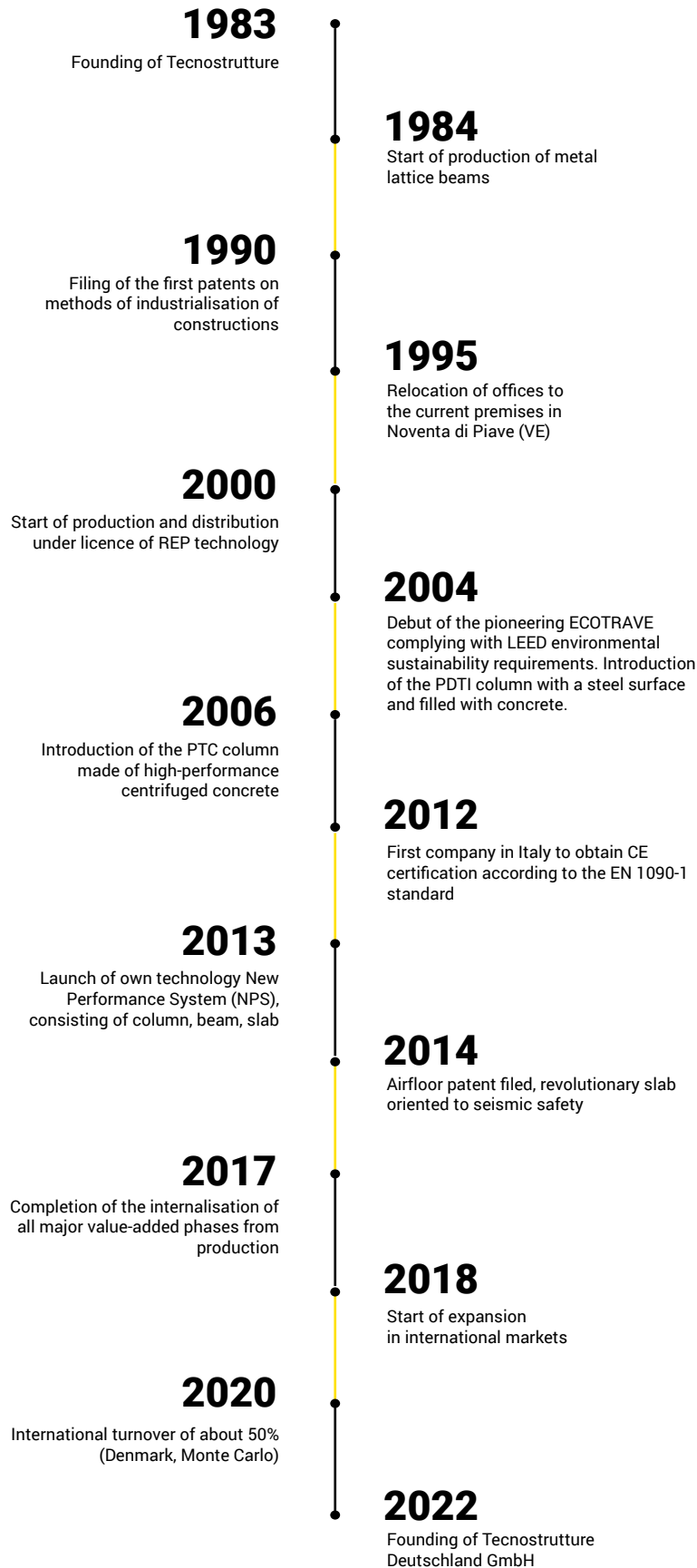
Share capital





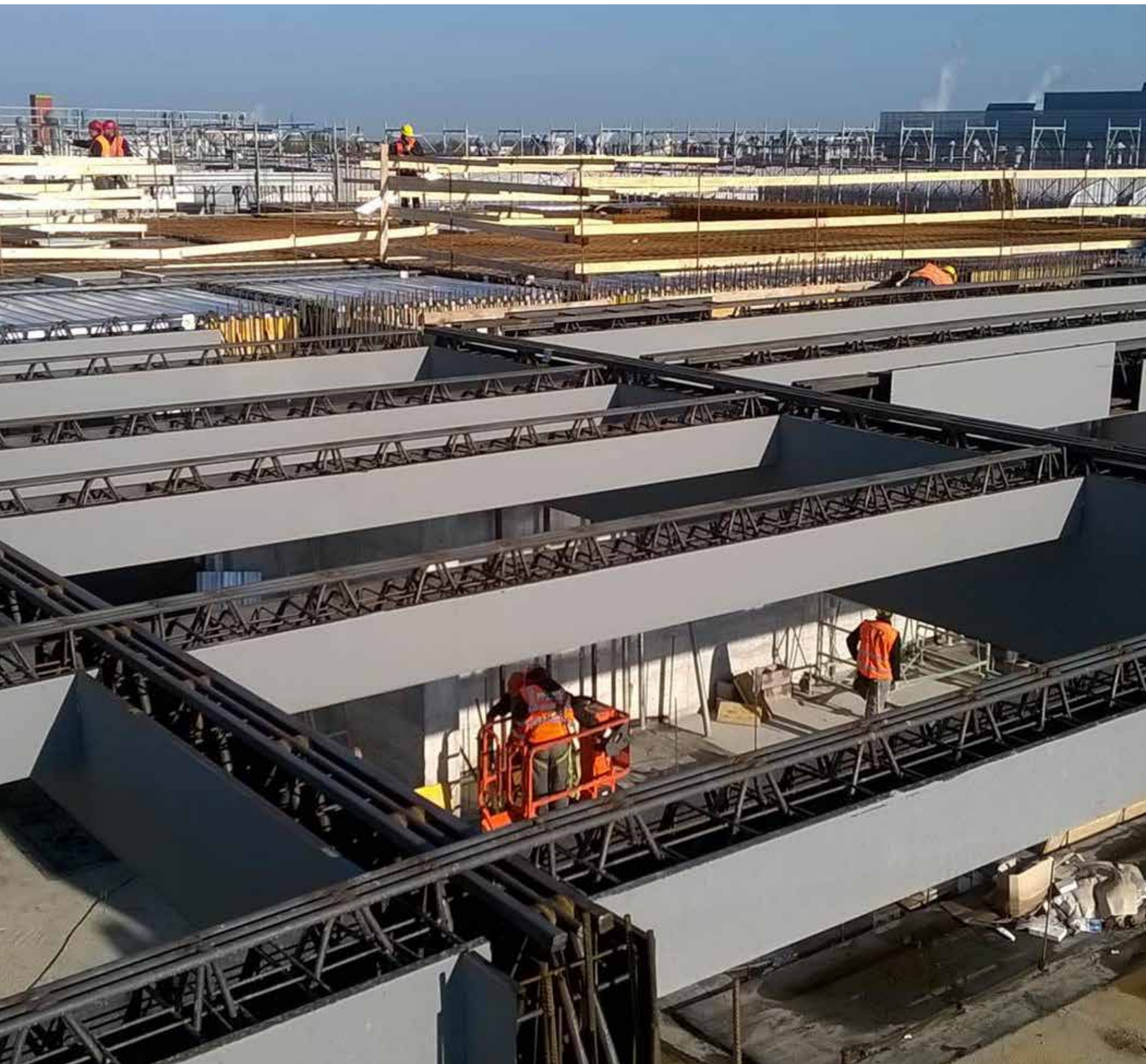
# CORPORATE HISTORY

From 1983 to date



Environmental sustainability has been guiding our path for about 20 years, and step by step we have achieved several results:

- 2004 we launched ECOTRAVE® on the market, a solution with a brick base that complies with LEED environmental sustainability requirements.
- 2011 we join Green Building Council Italy.
- 2013 we complete the development of our building system New Performance System (NPS), which combines outstanding performance with reduced environmental impact.
- 2019 Tecnostrutture Academy is born, an online portal to share knowledge and experience related to the world of mixed structures.
- in 2022 we voluntarily release our first sustainability report, extending our sustainability awareness to social and governance aspects and thus becoming the only Italian producer of mixed structures to publish a sustainability report.



Over the years, we have become members of the following bodies and associations:



Association representing industrial companies in the Treviso area.



Body that develops and publishes voluntary normative documents (UNI standards, technical specifications, technical reports and reference practices).



It represents companies and professionals active in the field of earthquake engineering and promotes communication with institutions and regulatory bodies, the academic and scientific community, industries, and professionals



European Centre for Training and Research in Earthquake Engineering (EUCENTRE) supports and takes care of training and research in the field of earthquake risk reduction.



Association that pursues the diffusion of green building through the LEED system, a protocol developed in the United States.



It fosters the spread of a qualified culture of sustainability and a growing awareness of the social and economic value of sustainable infrastructures.



The Illinois Institute of Technology in Chicago studies how the increasing urban population and the vertical growth can promote more sustainable and healthier cities, especially in front of mass urbanization and the growing effects of climate change.



Giulia Daniele, Head of Business Development & Sustainability at Tecnostrutture, is part of BuildVision, the Italian meeting community for the construction supply chain and for the real estate sector.



The Federal Association of Prestressed Concrete Slabs (BVSF) wants to foster the knowledge of this efficient and environmentally friendly structural solution, which is ideal in combination with Slim-Floor beams such as our NPS construction model.



The Italian National Association of Earthquake Engineering (ANIDIS) aims to spread the culture concerning seismic problems in Italy among professionals who work in areas of relevance.

The compass in the path we have taken has always been our company's mission: to guarantee certain timings and costs, through a construction system that is safer, more efficient and sustainable than traditional ones, and with the aim of industrializing the construction world by focusing on innovation in the sector. In 2020, we developed and published our value system, which is a document provided regularly to stakeholders before starting new collaborations. We believe that sharing the same values is an essential prerequisite for the creation of a satisfactory working relationship for everyone. In particular, our activities are based on the following pillars:

- **Knowledge**

We want to spread a new building culture and we are aware that to do so we need curiosity, courage and ambition. These three elements form the basis of our research and development initiatives which, when conducted with leading technical-scientific partners, allows us to go beyond the limits of current knowledge in the sector.

- **Robustness**

Creating resilient solutions, capable of defying time and space, in the name of safety and reliability: this is the approach that we offer our customers.

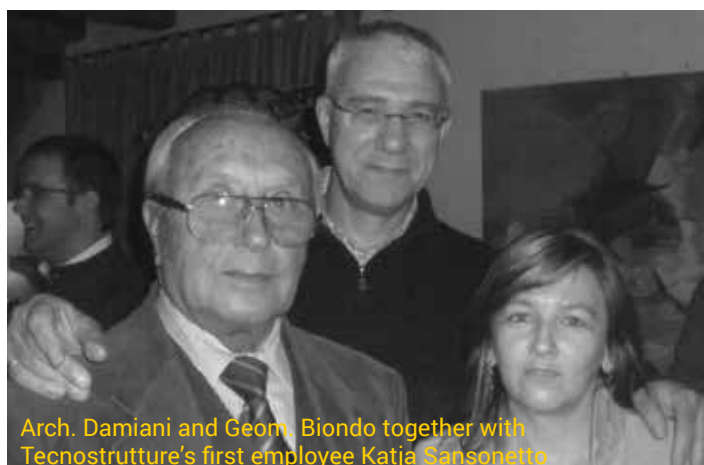
- **Timing**

Our attitude towards time is active: we work quickly on objectives without neglecting the precision required to achieve optimal results. We work by integrating soft skills to make the final execution simple, fast and efficient.

- **Essentiality**

'Less is more' is the slogan that exemplifies the essential, minimalist style in building, working and living to which we aspire. Through a conscious and sustainable use of resources, we take away instead of adding, bringing simplicity where there is complexity, valuing only what is indispensable and thus achieving our ultimate goal of improving people's quality of life.

In addition to being shared and promoted within Tecnostruttura, these values are published in several languages on our website so that they can be understood by all stakeholders.



Arch. Damiani and Geom. Biondo together with Tecnostruttura's first employee Katja Sansonetto



Franco Daniele and Maria Angela Cerchier – Founders of Tecnostruttura





Paolo Biondo and Franco Daniele

## 1.2 The organisational structure and set-up

Tecnostrutture S.r.l. is wholly owned by the Daniele family, through the holding company Dafin S.r.l.



The Board of Directors (BoD), whose composition was updated in 2020 and is appointed and evaluated periodically by the Shareholder's Meeting, consists of six members, three of whom are from outside the ownership, and who bring specialized expertise that is functional to our development project. The BoD is responsible for the management of the company through the elaboration of corporate strategies, as well as the responsibility for decisions and evaluations of economic, environmental and social performance. The BoD determines independently the compensation to be paid to its members, based on performance indicators linked to EBITDA and to the specific areas of expertise. The company is also equipped with a single-member board of auditors, which is entrusted with the control of legality.

Name	Role	In BoD since	Main Areas of competence
<b>Franco Daniele</b>	President and CEO	Foundation	Sales and technical supervisor
<b>Giulia Daniele</b>	Administrator	May 2017	Commercial development and sustainability
<b>Giovanni Montagner</b>	Administrator	June 2013	Management support
<b>Enrico Gomiero</b>	Non-executive administrator	May 2017	Management and internationalisation processes
<b>Giulia Milan</b>	Non-executive administrator	May 2020	Financial planning
<b>Matteo Mottin</b>	Non-executive administrator	May 2020	Product and Process engineer

Consapevoli che la sostenibilità è un valore che deve permeare tutta la nostra azienda, abbiamo nominato Aware that sustainability is a value that must permeate our entire company, we have appointed a contact person in each department to help us promote good practices in Environmental, Social and Governance (ESG) areas. These contact people constitute the Sustainability Committee of Tecnostrutture, a cross-functional internal body that meets quarterly and through which we define and monitor corporate sustainability goals, making them concrete through effective and innovative solutions.

In addition, Tecnostrutture can count on a Steering Committee that offers technical and scientific expertise to support strategic business decisions on sustainability issues. It consists of experts in green building, civil engineering and human resources:

- **Chiara Calderini.** Professor at the Department of Civil, Chemical and Environmental Engineering and member of the curriculum committee in Structural, Geotechnical Engineering and of the PhD materials in Civil, Chemical and Environmental Engineering at the University of Genoa, she supervised the LCA assessment of Tecnostrutture. She coordinates the master's degree course in Engineering for Building Retrofitting and is a member of the steering committee in Science and Technology of Sustainability at the University of Genoa School of Engineering. She is the author of numerous publications in the field of building technology.

- **Andrea di Lenna.**

A graduate in Business Administration, he is involved in management education, organisational consultancy and training for national and multinational production and service companies, as well as for Public Administration realities. At the Department of Philosophy, Sociology, Pedagogy and Applied Psychology of the University of Padua, he teaches the courses “Organisation and Management of Human Resources” and “Economics and Organisational Planning”. He is director of Performando, a management training and consulting company for personal and organisational development.

- **Andrea Fornasiero.**

He is chairman of the Standards Committee of Green Building Council Italia, a non-profit association that promotes the dissemination of a sustainable building culture, part of the international GBC network. He deals with aspects of sustainability, building physics and energy-environmental certification in the civil construction sector at Manens-Tifs. He was the first Italian to join the technical committee of the U.S. Green Building Council (USGBC), with the aim of evaluating and recommending technical solutions for the development of the LEED system.



### 1.3 Products

Our product offer consists mainly of nine types of beams, three families of columns, a modular slab system and six complete beam-column-slab solutions.



NPS self-supporting columns can be distinguished into three main types:

- PDTI, mixed pillars with steel surface and filled with concrete
- PTC, centrifuged concrete columns
- BASIC, vibrated concrete columns



NPS beams are mixed steel-concrete lattice girders that are self-supporting and can be combined with any type of floor.



The Airfloor slab, born from a Tecnostrutture patent, is the lightest slab on the market with a dry weight of 45 kg/sqm.



We have solutions combining NPS beams, columns and slabs with specific characteristics for each required application.



NPS Wall is a mixed-structure steel and concrete reticulated wall designed for tall, seismic-resistant buildings.



NPS Top Down indicates a construction method for the subsoil that avoids the detensioning of the boundary soil.



NPS Dia is a steel lattice panel that contains the soil during excavation.



Our products are mainly used in construction in the following sectors:



**Hospital**



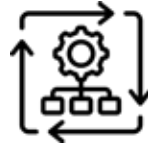
**Industrial**



**Tertiary**



**Civil**



**Infrastructure**

In addition, we offer numerous services to support professionals and companies in the design and implementation of works, including:

- organisation of activities aimed at disseminating culture and scientific knowledge on mixed structures.
- Provision of technical tools developed to facilitate design with NPS elements.
- Provision of technical and commercial material to support the preliminary assessment phases of mixed structures.
- support capable of embracing the entire process: from identifying the ideal solution for the customer to dimensioning the elements, to delivery on site and assistance with installation.
- on-site assistance.

In addition to the head office in via Meucci 26 and the production plant in via Volta 36, located in Noventa di Piave, we have a logistics base provided by one of our suppliers in the province of Cosenza: a functional detail to serve Southern Italy and North African countries.

To meet the market's needs and to follow active and upcoming projects especially in Northern Europe, we are present in Denmark with a representative office.

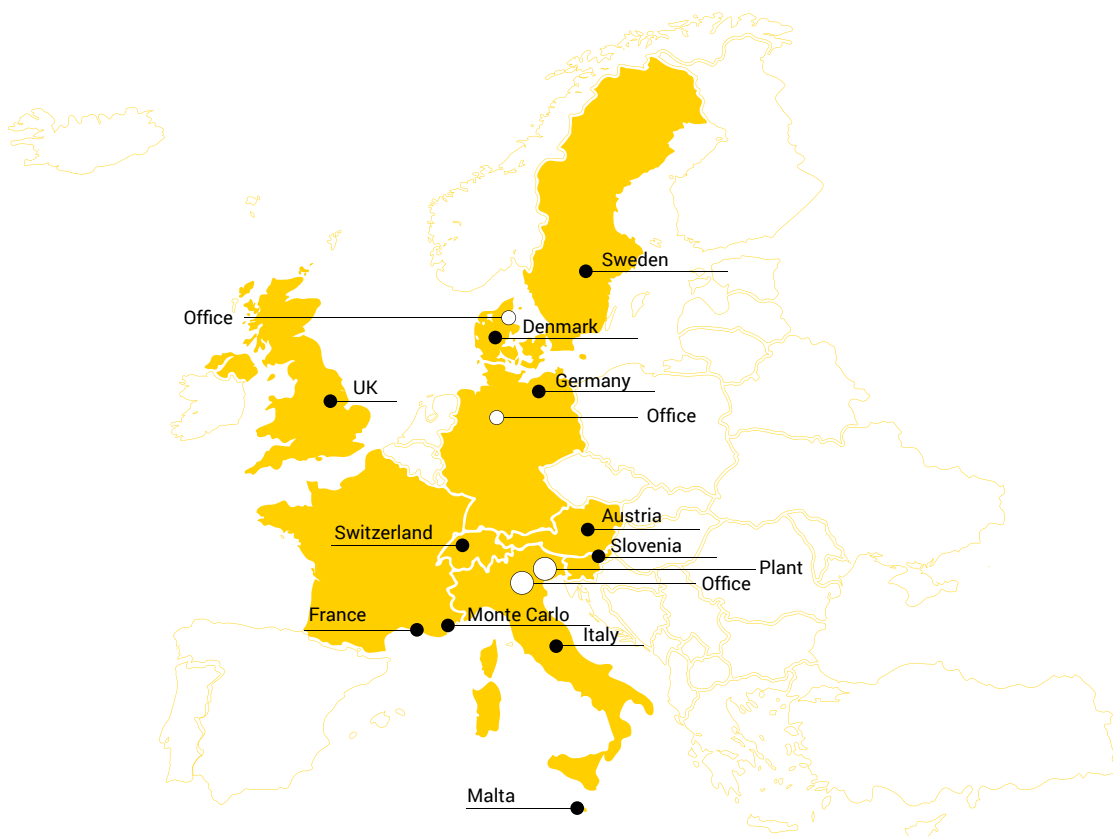
Furthermore, in 2022 we founded Tecnostrutture Deutschland GmbH which is located in Essen.

Establishing a German organisation with a regular legal form related to this country, was a natural transition. In fact, we have been present in Germany since 2020 with a representative office where our customers can interact in German with native-speaking designers and salespeople. The choice of Essen as headquarters is also not a coincidence: the city is strategically located in the heart of North Rhine-Westphalia, facilitating relationships with customers in Central and Northern Europe.

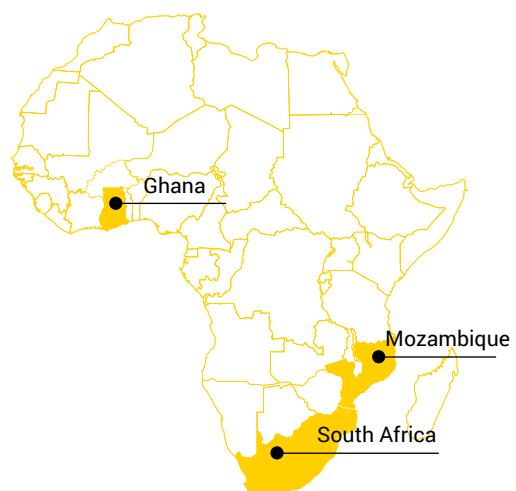
We are very proud of this new experience and intend to replicate the model in other countries where we have active projects.



## 1.4 The markets in which we operate



● Market served      ○ Office or establishments



# Chapter 2





**Our journey towards greater sustainability began in 2004, when we designed the first beam with a pure terracotta base with the aspiration of contributing to the ecological transition of the construction sector. Since then, we have taken many steps forward, including assessing the impacts of our products and communicating them through appropriate certifications. A milestone on this journey was the drafting of our first sustainability report related to 2021, thus extending our focus on sustainability to social and governance aspects.**

**We strongly believe in this tool, which allows us to increase the transparency of our operations and dialogue with our stakeholders. The drafting of the second edition of the report confirms our commitment to increasingly integrate sustainability into our business strategy and to continuously improve Tecnostrutture's performance in ESG areas.**

# Methodological Approach

## **2.1 Criteria for drafting the report**

The data and information in this report refer to 2022 and cover production activities, as well as all other activities carried out in the reporting year and related to the three spheres of sustainability, conducted in the head office in via Meucci 26 and in the factory in via Volta 36.

The Sustainability Reporting Standards published by the Global Reporting Initiative (GRI) underwent a major update, which came into effect in January 2023; therefore, this report has been prepared in accordance with the most up-to-date version of the standards. The main differences from the previous version concern certain methodological aspects related to the materiality analysis, which are explained in the following chapters.

The GRI standards define some guiding principles to ensure the quality and accuracy of the information reported, so that stakeholders, and in general anyone reading the report, can fully assess the organization's impact and its contribution to an increasingly sustainable development.

The reporting principles have also been updated and in the new version of the standards are accuracy, balance, clarity, comparability, completeness, timeliness, verifiability and sustainability context.

The drafting of the document saw the active collaboration of various corporate functions that contributed to the collection of the necessary data and their correct contextualization. This process was facilitated by the Sustainability Committee, a cross-functional working group, established to promote change within our organization.

This report, which will be updated annually, has been approved by the Board of Directors of Tecnostrutture and has been verified by the independent body Intertek Italia S.p.A., as reported in the asseveration letter on page 80.

## **2.2 Stakeholder involvement**

To gather the instances, expectations and points of view of stakeholders, we conducted a specific activity called stakeholder engagement. This is an articulated process of listening and dialogue that involves stakeholders in the formulation of company policies and strategies.

The first step, taken in the previous reporting cycle, involved identifying the categories of stakeholders relevant to our Company: these coincide with those who are or may be affected, directly or indirectly, by the Company's activities. To identify the stakeholders of greatest relevance to Tecnostrutture, the principles of responsibility, influence, closeness/proximity, dependency and representativeness were considered, as required by the standard AA1000 on Stakeholder Engagement (AA1000 SES) developed by Accountability; this standard is the basis on which we assigned a priority class to each identified category.



### **Internal workers**

Those working in the employ of or on behalf of Tecnostrutture, including their representatives (e.g. trade unions).



### **Suppliers of raw materials**

Those who supply Tecnostrutture with materials (steel and concrete) for product manufacture.



### **Service Providers**

Those who provide Tecnostrutture with services such as fitters and carpenters, but also personnel recruitment companies and IT services.



### **Sales chain**

Tecnostrutture's sales chain consists of the client, i.e. the person who invests in the work, the designer and the construction company that takes on the work.



### **Investors**

Possible buyers of company share in the medium to long term.



### **Society and local communities**

The social context of the territories in which Tecnostrutture's worksites are located and which may directly or indirectly influence its activities.



### **Institutions**

The set of institutions that can directly or indirectly influence activities of Tecnostrutture (Region, Province, Municipality where the plant and offices are located, University).



### **Financial institutions**

Banks and credit institutions that can contribute to the financing of Tecnostrutture's activities.



### **Associations and NGOs**

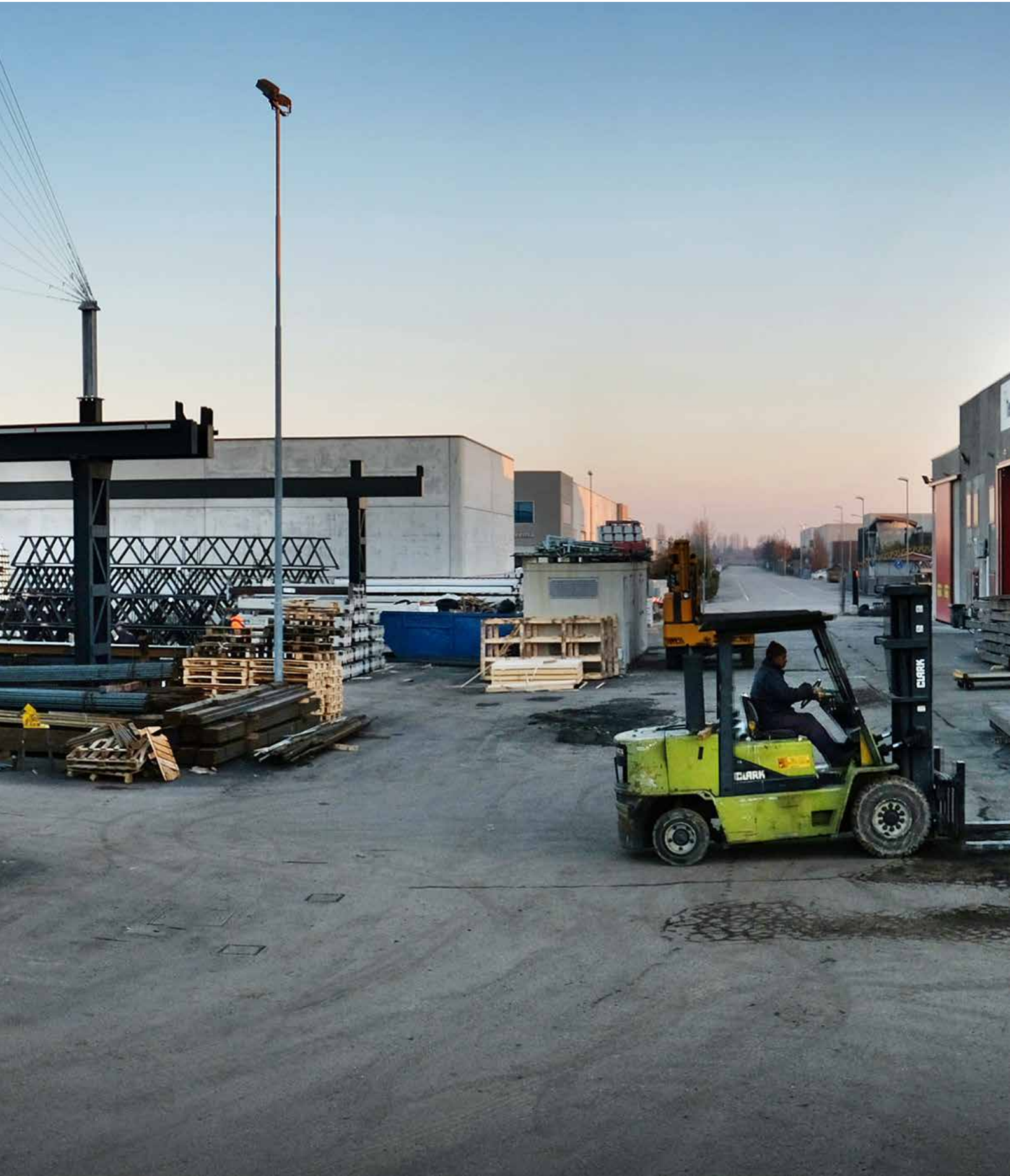
Private, non-profit associations and organisations that can act in areas that directly or indirectly influence the activities of Tecnostrutture (e.g. environmental associations).



### **Media and press**

International, national and local media that may directly or indirectly influence Tecnostrutture's activities.

In order to identify the ESG issues of greatest interest to our stakeholders and establish their relevance, in this report we have chosen the indirect engagement method, which consists of selecting and analysing documentation to reconstruct the opinions and demands inherent in our priority topics.



## 2.3 Materiality matrix

The materiality analysis is the methodological heart of any sustainability report and the starting point for selecting issues related to an organisation's most significant impacts on the economy, environment and people. The GRI standards update introduced a focus on impacts that are generated by business activities; in this sustainability report, we have therefore revised the previous materiality analysis with respect to the new requirements of the standards.

In order to come to the identification of the material themes, it is essential to first study its own reality, the context in which it operates and the competition it faces, identifying priority sustainability issues, including aspects related to respect for human rights. Although this activity was already carried out in 2021, for the drafting of this report, for each of the potentially material issues, we identified the main current and potential impacts that our Company generates in the three dimensions of sustainability: economic, social and environmental. We assessed the significance of each selected impact, based on its importance and likelihood of occurrence, by submitting a questionnaire to the company management. Since the involvement of the stakeholders is intended to support the company in identifying impacts and assessing their relevance, the analysis of the results of the involvement was assigned a value of direction and guidance.

The interpretation of the results of these activities led to the identification of the material topics listed in the following table in order of importance. The order takes into account both the company's and the stakeholders' point of view.

	Material Themes	Definition
1	<b>Sustainability of production</b>	Acting with respect for all means and techniques in accordance with the principles of professional fairness, condemning and rejecting corruption and unfair competition
2	<b>Compliance and Legal Compliance</b>	The management of the company in compliance with national and international laws, rules and regulations governing its operations and the use of products
3	<b>Resilient and sustainable products</b>	The production of robust, durable and safe products that respect the principles of environmental and social sustainability
4	<b>Sustainability of production</b>	The production of high quality products through proper management of energy, water and greenhouse gas (GHG) resources and respect for biodiversity.
5	<b>Security and well-being psycho-physical condition of employees</b>	The protection of the health and safety of employees and the promotion of their well-being also through personal and professional development.
6	<b>Economic soundness</b>	The ability of the company to generate economic value and redistribute it to stakeholders.
7	<b>Circulation of raw materials</b>	Favour the use of raw materials in production that have a high recycled content and meet the principles of circular economy
8	<b>Partnerships and associations</b>	The creation of partnerships and active participation in associations to share knowledge and expertise in order to foster innovation and development in the sector.
9	<b>Customer satisfaction</b>	Ensuring customer satisfaction with the quality of products and the efficiency of services provided to strengthen customer loyalty to the brand
10	<b>Education and training</b>	The promotion of knowledge and culture of innovation in the construction sector, with particular reference to the offsite system, on the national and international scene, also in cooperation with schools and universities.
11	<b>Research and Innovation</b>	Research and technological innovation as strategic elements to increase the knowledge and competitiveness of the company and to pursue continuous improvement and the development of ever more efficient construction methods.



The analysis conducted on our impacts led to a repositioning of the priority of material issues compared to the materiality matrix presented in the previous report. We awarded the highest scores to Loyalty and Transparency, Compliance and Legal Compliance, in line with our business model and the values underpinning our way of doing business. This was also confirmed by the publication of the new corporate code of ethics in the reporting year.

The theme resilient and sustainable products, linked to our commitment to provide those who choose us with reliable and durable products, has remained a priority, as well as the customer satisfaction. The topic of production sustainability has gained importance even within our reality; this does not surprise us: on one hand environmental impacts are receiving an increasing attention in the construction sector, on the other hand, we have initiated several collaborations with influential industry associations in this field, and we are also committed to promoting our innovative systems, which encourage the spread of more efficient construction methods in line with the principles of the circular economy and sustainability.

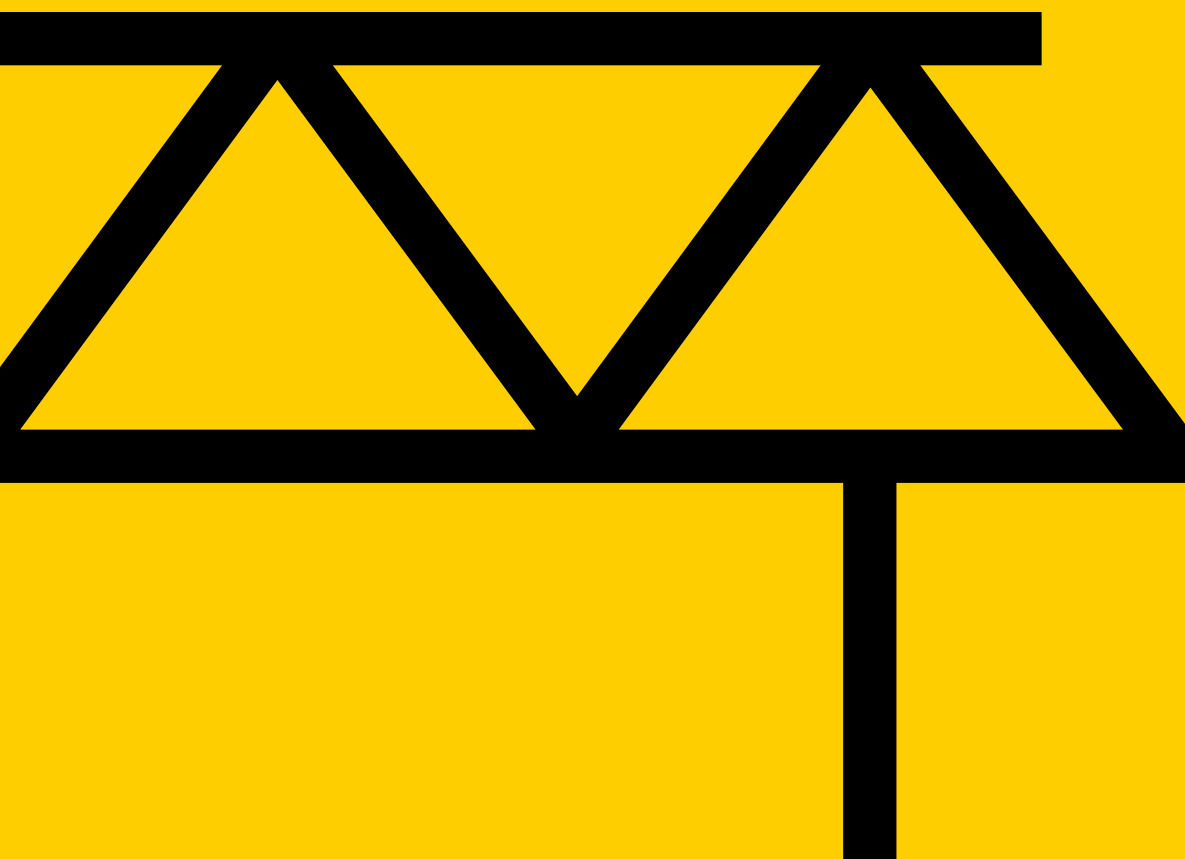
Issues such as safety and psycho-physical wellbeing of workers which are the most important resources for our success and economic solidity, remain relevant for us, knowing that that the ability of its redistribution to all categories of stakeholders depends on this.







# Chapter 3



**In 2022, we faced several challenges, which confirmed our capacity to plan and respond to change.**

**The rise in prices and the difficulties of supplying raw materials already experienced in 2021, were further aggravated by the war in Ukraine, a country which, like Russia, is among Europe's largest steel suppliers.**

**Despite the unfavorable environment, we managed to close the financial year 2022 with result levels in line with the previous year, and significantly increase employment levels and fulfill contractual commitments with customers. We also consolidated the market in Denmark with the acquisition of a major order related to the construction of a new hospital in Copenhagen.**

**It is significant in our view that the turnover, which was achieved abroad, accounted in 2022 for 31% of the total. The increase over the previous year, when it amounted to 17% of the total turnover, is noticeable and confirms our expansion into foreign markets, especially European ones.**

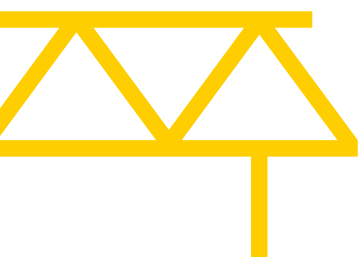


# Economic and ethical soundness

## 3.1 Value creation and risk management

The generation of economic value ensures the sustainability and continuity of our business over time, while its distribution allows us to understand the impact of our activities on stakeholders, the territory and the socio-economic system as a whole. Both aspects - generation and distribution of economic value - are detailed in the table below.

Economic value generated and distributed	2022	2021
Economic value generated	31.321.856 €	19.741.473 €
Distributed economic value	31.123.016 €	19.502.214 €
Operating Costs	24.587.335 €	14.561.367 €
Insurance costs	84.769 €	66.713 €
Costs for advertising, promotion and publicity material	111.226 €	133.423 €
Costs for exhibitions, fairs, events, seminars and conferences	25.871 €	31.926 €
Costs for travel, transfers, lunches and overnight stays	101.161 €	68.523 €
Quality costs	28.565 €	41.627 €
Construction site safety costs	57.404 €	40.089 €
Costs for studies and research, laboratory tests and quality control	136.866 €	231.721 €
Salaries and employee benefits	3.930.942 €	3.301.688 €
Training and further training costs / Employee medical examinations / Canteen / Mileage reimbursements	45.353 €	56.321 €
Amortisation and depreciation	1.069.540 €	598.673 €
Financial income and expenses	165.440 €	104.685 €
Payments to Public Administration	274.968 €	129.449 €
Investments in the community	20.000 €	10.000 €
Other miscellaneous operating expenses	483.579 €	136.011 €
Economic value retained	198.840 €	239.259 €



The 9% of the procurement budget is spent for suppliers in the province of Venice. To the retained economic value must be added government subsidies and tax breaks received for the purchase of new machinery and capital goods, as well as for research and development activities. Details are given below

Financial assistance received from the government	2022	2021
Tax reliefs and tax deductions	160.617 €	69.901 €
Investment, research, development and other relevant subsidies	41.614 €	178.233 €

In 2022, the profit for the year amounted to EUR 401,071, which was entirely reinvested in activities for the growth of the company. The table shows the types of orders obtained during the reporting year.





### **New Hospital Bispebjerg, Copenhagen**

In 2022, we will once again be a partner for the construction of healthcare projects thanks to our speed of action. After having contributed to the construction of the Odense University Hospital and the Køge Hospital in Denmark, we are now supplying NPS® structures for the construction of a new part of the Bispebjerg district hospital in Copenhagen. This area includes: an underground car park, a shared emergency room, an intensive care unit, a maternity ward, as well as single rooms, radiology and operating rooms.





Worksite numbers:

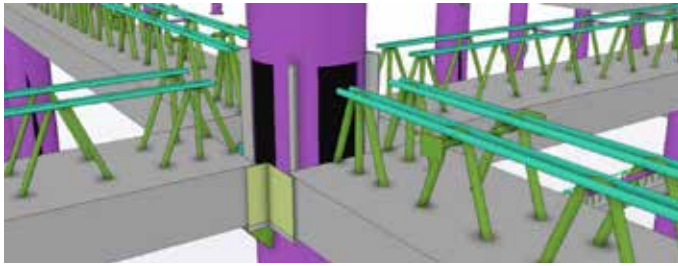
**77.350** m<sup>3</sup> surface area

**2022 – 2025**

lead time

**Solution used:** NPS® PDTI® columns (total length of 6,200 m) and NPS® BASIC beams (total length 13,300 m) combined with hollow core slabs.





With regard to the assessment and management of risks and opportunities related to our activities, we are aware of the importance of the impacts that the construction sector can generate in ESG areas. Due to their intrinsic characteristics, infrastructure works have a direct and protracted influence over their entire life cycle on natural capital elements such as biodiversity, soil, water and atmosphere; at the same time, these works are exposed to multiple environmental risks, including damage caused by extreme weather

conditions. Furthermore, the sector in which we operate contributes to the provision of essential services such as sanitation and transport, which is why we also have a significant impact on individuals, families and society at large.

Governance aspects also require careful strategic planning in order to avoid the risks associated with relations with the actors in our supply chain.



For all these reasons, we identify and monitor the risks and opportunities related to our activities and products, and keep potential impacts under control. Regarding environmental aspects, we have defined a corporate strategy to promptly respond to emergencies and have an environmental and quality management system, obtaining the relevant ISO 14001 and 9001 certifications. In accordance with the requirements of the European privacy regulation 2016/679 called General Data Protection Regulation (GDPR), we also perform an analysis of the risks related to personal data processing.

Finally, risks related to corruption are of particular relevance to our reality, as the size of projects and the multiplicity of phases and parties involved make our activities exposed to corrupt behaviour<sup>1</sup>. We are personally committed to identifying risks in this area and to maintaining corporate policies to combat corruption and anti-competitive behaviour.

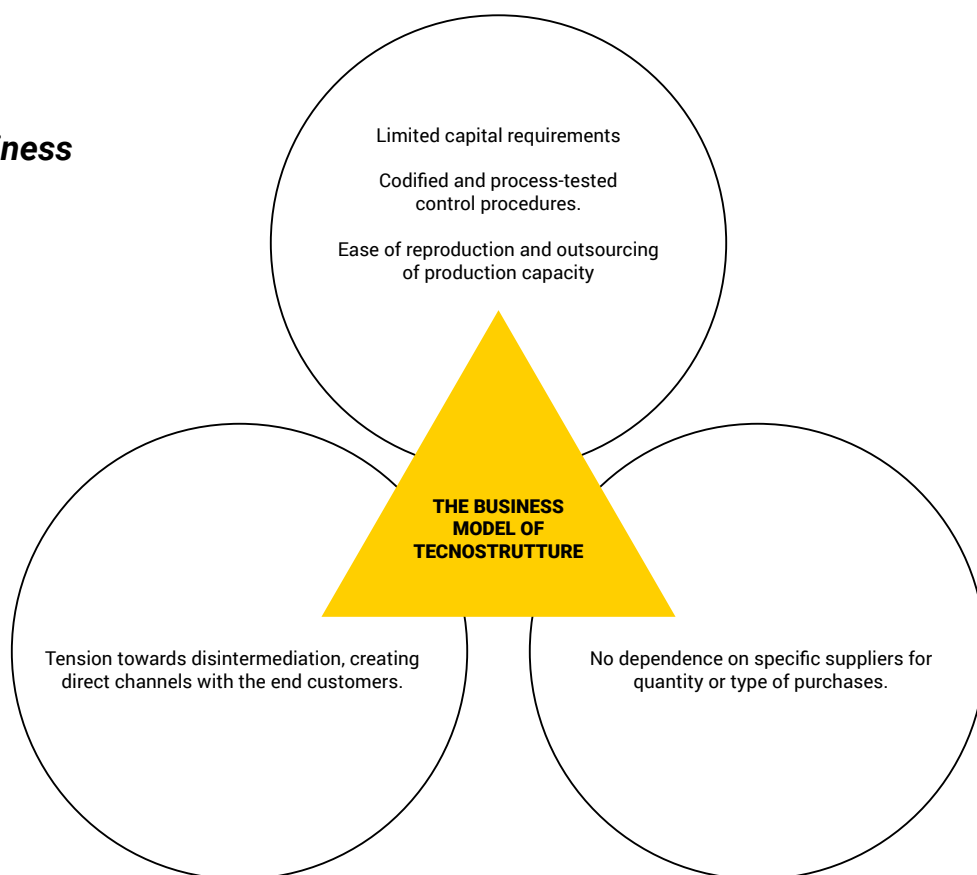
In 2022:

- no corruption and discrimination incidents have been established or contested.
- no lawsuits were filed for anti-competitive behaviour, antitrust and monopolistic practices.
- we have not been sanctioned for violations of environmental laws and/or regulations or in social and economic contexts.

As a demonstration of our commitment to conducting our business in an ethical and transparent manner, we have obtained the Legality Rating certification. The Competition and Market Authority has given Tecnostrutture a rating of “ +”, a score that indicates a high degree of attention towards ethical and correct management of its business.

<sup>1</sup> ‘OECD Guide on Duty of Care for responsible business conduct’ - OECD (2018).

### 3.2 Our way of doing business



As a company, we strive daily to have a limited impact on the planet and on people. Regarding the former, we transparently communicate the environmental impact of our products, support the introduction of a building registry, use recycled materials in production wherever possible, and provide solutions that enable the reuse of raw materials.

We also want our employees to feel involved in decision-making processes, so each department, through a contact person, sets its own goals and promotes good sustainability practices. Thanks to this system, we have identified the Sustainable Development Goals (SDGs) of Agenda 2030 that are most relevant to our reality and on which we can act most effectively.





In detail, during 2022:

- Regarding the Clean and Affordable Energy goal, we would like to point out that all electricity used in our factories from 1 January 2022 is generated from renewable sources, a part of which is self-generated by a photovoltaic system; to install new photovoltaic panels on the roofs of our production facility is one of the goals for 2023.
- For the Industry, Innovation and Infrastructure objective, we aim to increase investment in research and development to reduce the use of raw materials and better manage the end-of-life phase.
- About the goal Responsible Consumption and Production, we plan the steel working process with 4.0 machines in order to minimise scrap; the remaining product is sent for recycling.



In December 2022, a ceremony was held to present the GBC Italia Awards, which is reserved for Italian excellence in sustainability in construction. During the event, Giulia Daniele was presented with the 'Mirna Terenziani' award, dedicated to one of the personalities who have contributed the most to the development of the association. This award honours women from the GBC Italia community who have been involved at the forefront of innovative sustainable building projects. What has made this achievement possible is the dedication of all Tecnostrutture people in pursuing the path towards sustainability, by revolutionising the company culture and implementing activities in favour of local communities.





# Chapter 4



**When it comes to innovation, we make no compromises. For us, this noun has a precise meaning: it is a tension to break the traditional patterns of the sector in which we operate, thanks to research and development activities conducted together with high-level technical and scientific realities.**

**This is how we are able to create new knowledge in construction, knowledge that we take care to share through various tools. To do this requires not only a lot of curiosity, but also a good dose of courage.**

**These assumptions are translated into practice in the continuous study of advanced technologies and in the efficiency of production processes, with the ultimate goal of offering our customers state-of-the-art construction solutions in terms of performance, safety and aesthetics.**

# Product and process innovation

## 4.1 Innovation for the development of the sector

Stimulating the development of the construction sector and the industrialisation of construction sites connotes us as promoters of change. We firmly believe that sharing knowledge is the best way for the sector to evolve and that is why, since the early 2000s, we have intensified our research and development activities and organised more than one hundred training events at universities, professional associations and construction sites. Our growth path boasts the support of numerous universities, but also sees a fundamental contribution in the stimuli we receive from each designer, in presenting us with new structural challenges and suggesting innovative solutions. Among the universities we have collaborated with over the years on specific projects and the publication of scientific articles with prestigious universities are:

Università di Pisa



University College of London



Università di Camerino



Università di Genova



Università di Padova



ETH di Zurigo



University of Washington



Ruhr-Universität Bochum



Among the projects to which we have contributed is a technical handbook introducing the fundamental concepts of mixed steel-concrete construction technology, now in its fourth edition. The latest version includes indications for structural modelling according to the correct regulatory prescriptions for safety, thanks to which it will be possible to avoid errors attributable to improper procedures that can compromise the strength and durability of structures; at the same time, it will allow to avoid any inappropriate interpretation of the behaviour of self-supporting mixed steel-concrete constructions.

The dissemination action of the 2011 edition of the handbook takes on particular importance considering the performance orientation of the

most recent technical regulations, which set the final requirements of the work, leaving greater room for manoeuvre and responsibility to the professionals in charge of design and construction.

Tecnostrutture ACADEMY is another project that allows us to spread the culture of innovation, as well as an online platform that from 2019 is the reference point for sharing knowledge in the field of mixed steel-concrete structures. Designed for all those who work in the world of design and construction, Tecnostrutture ACADEMY provides numerous resources such as scientific articles, videos, events and online seminars. As mixed structures are a cross-cutting theme, the content covers a wide range of topics, including design in BIM, seismic safety and the earthquake bonus, sustainability and much more. Since January 2020, we have also developed an English language version, thus reaching an international audience.

#### ***4.2 Innovation for product quality and service efficiency***

Our long experience with composite structures has allowed us to increase our know-how in the industrialisation of the product, so as to guarantee consistently high quality standards, and in perfecting its technical performance, especially in relation to seismic resistance. Since 2000, we have undertaken intensive research activities, dedicating human and financial resources to improving NPS products, creating new solutions and refining production and technical support processes.

Recent projects include:

- the seismic resistance analysis of the nodes, entrusted to the University of Padua.
- PTC® NPS column tests performed at Shanghai Tongji University.

- the FEM input test on the stiffness of structures conducted by the Eucentre Foundation in Pavia.
- the life cycle analysis of structures (LCA), conducted with the contribution of the University of Genoa.
- characterisation of the new Airfloor™ floor with fire resistance tests conducted at the CSI laboratory.
- acoustic performance testing at the EcamRicert laboratory.

In detail, we carried out the following activities in the reporting year:

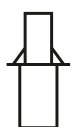
- Comparative analysis of assembly speed, material savings and environmental sustainability of structures, measured in terms of a building's carbon footprint, conducted in collaboration with Studio Fieschi & associates.
- Dissertation on the development of new solutions according to the logic of Design for Disassembly in cooperation with the University of Genoa.

With regard to obtaining technical certificates for the use of our products in foreign countries, we are in possession of the *Appréciation Technique d'Expérimentation (ATEX)*, i.e. the judgement in favour of the use of the NPS® off-site construction system on French territory by the highest scientific-technical body for construction: the *Centre Scientifique et Technique du Bâtiment (CSTB)*.



In 2022 we obtained a certification that allows us to distribute our PTC® columns and a specific type of PTC® Plus and Basic on Swiss territory by the Vereinigung Kantonalen Feuerversicherungen (VKF-AEAI), that is the association of cantonal insurance companies against fires.

In the same year, we managed a total of 21 patents, two of which, that were previously registered only in Italy, were also filed for other European countries:



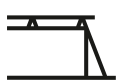
7

for columns



8

for beams



4

for slabs



1

walls for Top Down construction technique



1

for a construction system for port docks

Our products and production processes comply with the following standards:

**UNI EN 1090-1 Execution of steel and aluminium structures.**

**Part 1: Requirements for conformity assessment of structural components**



**UNI ENI 3834 Quality requirements for fusion welding of metallic materials**



**UNI ENI 13225 Precast**

**concrete products -**

**Linear structural elements**



Our investment in research and development:

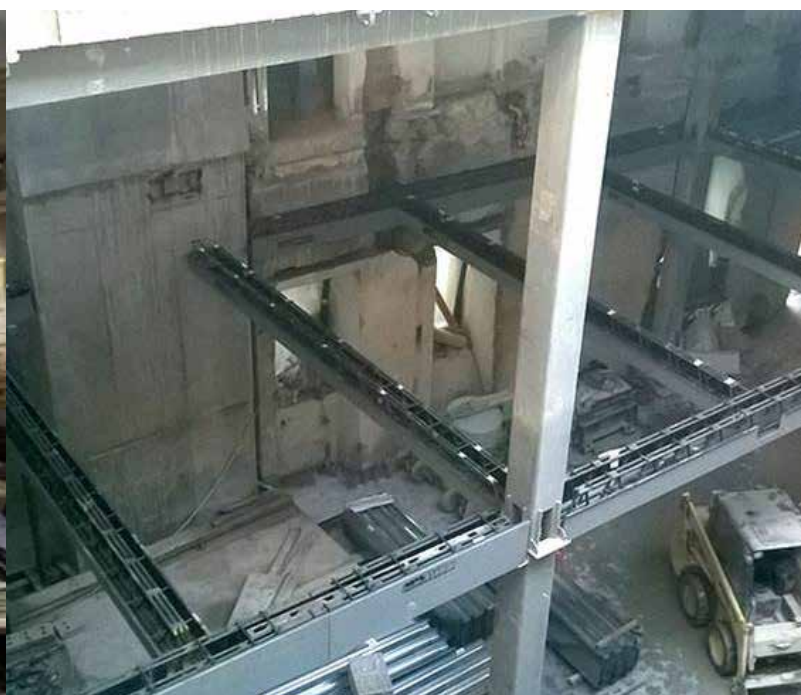
**2.016**

hours

**40.000**

euro approx

Thanks to the great work done over the past years, today all major NPS® products have an Environmental Product Declaration (EPD), a certification recognised on international level that communicates data on the environmental performance of products and services in an objective and comparable manner.



The study leading to the EPD is based on Life Cycle Assessment (LCA): an analysis which is conducted in accordance with ISO 14040 and which is able to examine the flows of matter, energy and resources required for the production, use and end-of-life of a product, identifying which are the main environmental impacts.

This approach over the years has revealed a number of advantages on different sides. The first is the one that allowed us to deal with public administrations. Mandatory in Italy since 2016, the Minimum Environmental Criteria (CAM) guide public administrations in the stages of the procurement process, favouring the choice of products that have less environmental impact, for the assessment of the eco-compatibility of a building component, CAM refer to environmental labels and, among these, the most comprehensive is precisely the EPD.

Over the years, LCA studies have enabled us to identify the processes and materials with the greatest environmental impact, to which we have devoted our efforts with a view to reduction. Not only that: the periodic updating of the EPD tells us whether the improvement measures are effective or not. The LCA methodology has thus proved to be both a lever for innovation, eco-efficiency and circular economy, and a pool from which to draw information for communication and marketing activities based on reliable and verifiable data.

The path we took with the development of the EPD allowed us not only to demonstrate the compliance of NPS® products with CAM, but also with LEED sustainability certification. We sought advice from an external body to map the characteristics of our CAM-compliant products listed in the Ministerial Decree of November 10th 2017, and the LEED and DGNB certifications. For the sake of transparency, these documents

are freely downloadable from our company website.

LEED® is a voluntary certification programme that covers the entire life cycle of any type of building. It promotes a sustainability-oriented approach to design, construction and demolition by evaluating building performance in key areas, such as energy and water savings, reduction of CO2 emissions, improved indoor ecological quality, materials and resources used, design and site selection. Developed by the U.S. Green Building Council (USGBC), the system is based on awarding 'credits' for each requirement. The sum of the credits outlines the four levels of certification: basic, silver, gold, platinum.

***The Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB), developed in Germany, is a building assessment scheme committed to promoting sustainability that takes into account the environment, people's well-being and cost-effectiveness.***

Our focus also extends to the supply chain of which we are an integral part. In this regard, to ensure complete traceability of the products and the raw materials from which they are made, we use a barcode system that allows us to trace back the raw material supplier for each component.



Casa Angelini – Rome © Ph. Francesco Pinto

Italy presents a significant seismic risk linked both to the intrinsic danger of many areas of the country and to the high seismic vulnerability of the existing buildings. Most of the buildings in our territory have been constructed in the absence of anti-seismic design rules or according to outdated standards, without guaranteeing the safety standards required by the current Technical Regulations for Construction.

Over the years of activity in Italy, we have developed an extensive experience in post-earthquake reconstruction and seismic retrofitting of schools and other types of buildings. We have also conducted numerous research activities on seismic issues, in collaboration with Italian and international universities, such as the Eucentre in Pavia, the University of Pisa, and the University of Washington.

NPS® products provide seismic resistance and native fire resistance, that is to say, without the use of bracing in the structure or additional surface treatments. In particular, one of our proposals stands out, that is one of the latest filed patents: the NPS® Sismi PDTI® column, which are particularly suitable for construction in seismic zones. Having higher ductility reserves than reinforced concrete systems, this product absorbs the action of earthquakes more effectively, reducing stress on the overlying structure. An example of the application of our expertise in this area concerns the renovation and seismic retrofitting of the Benetton megastore, located in Via Mazzini in Verona, in a building dating back to the 1500s that is bound to the Fine Arts. Thanks to the flexibility of our system, we built the entire structural frame with NPS® technology while maintaining the existing building envelope, granting reduced times and costs compared to traditional prefabricated and semi-prefabricated systems.



### 4.3 Customer satisfaction

Our long-standing experience enables us to provide our customers with a wide and diverse range of products and solutions, which distinguishes itself from the competitors by five factors.

#### 1. Single supplier for all structural elements

- Greater efficiency in project management.
- Perfect match of beams and columns, with interference-free connections.
- Responsibility for the static design relevant to the NPS product lies with us.

#### 2. Reduced costs and timescales and less changes

- Reducing the manufactured by an average of 40 per cent compared to traditional systems, ideal for new buildings or commercial renovations.
- Irrelevance of weather conditions for the execution of the work.

#### 3. Optimal utilisation of built volumes

- Maximisation of usable space in width and height thanks to beams with large spans and slender pillars and slabs.
- Adaptability of NPS® beams to different requirements.
- Flexibility in the distribution of interior spaces, with ease of changing the layout over time.
- Recognition of credits for building environmental certifications such as LEED and DGNB.

#### 4. Speed of assembly and safety on site

- Laying speed: 5 minutes per column, 8 per beam.
- Indicative reduction of 80 per cent of labour requirements.
- Elimination of formwork, with positive effects

on costs and waste.

- Delivery of beams and pillars at the time of installation, without the need for storage space.

#### 5. Native fire and earthquake resistance

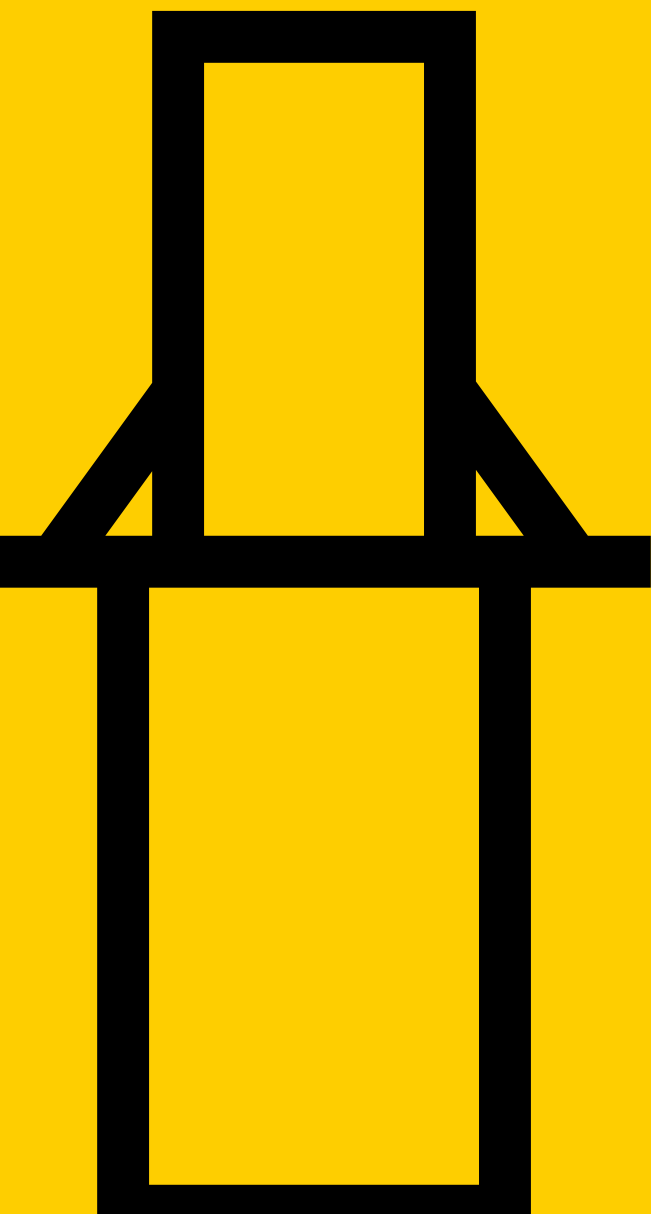
- Native fire resistance of up to 180 minutes, which eliminates the need for additional treatments on beams and columns.
- High seismic resistance standards make Tecnostrutture's solutions ideal for buildings in seismic areas and/or high buildings.
- Lightness, resulting in reduced loads on foundations.

To find out whether customer satisfaction is in line with our expectations, each year we send a questionnaire of ten multiple-choice questions to a selected sample. In 2022, 77 per cent of the customers surveyed said they were satisfied with our products and services: speed of assembly, in particular, was the most appreciated feature. We also use the results of the questionnaire to set improvement targets and achieve increasing efficiency in the delivery of products and services.





# Chapter 5



**Construction is among the sectors with the highest environmental impact both in terms of resource consumption - soil, water, raw materials, energy - and in terms of climate-changing gas emissions into the atmosphere and waste production.**

**The Association for Sustainable Infrastructure (AIS) conducted a survey to assess the positioning of the sector with regard to ESG issues and to encourage the transition of all players in the supply chain towards products and processes with a lighter impact. The most relevant sustainability aspects for companies and their stakeholders were identified through a materiality analysis based also on interviews with a representative sample of the entire construction supply chain. It emerged that the aspects on which action is needed with most urgency are the prevention of pollution, the reduction of natural resource consumption and the mitigation of climate change.**

**The transition to a circular and zero-emission production model is complex. However, if interpreted as an opportunity, environmental challenges can provide a strong push for innovation and the socio-economic development of communities. Accepting this stimulus, we have decided to involve all our resources at Tecnostrutture in the construction of more sustainable buildings, for a better future for the people who live in them.**

# Efficient, responsible and circular production

## 5.1 Our approach

Maintaining ISO 14001 certification for the Environmental Management System (EMS) in the company ensures a structured approach capable of responding to environmental emergencies.

The implementation of the EMS in the company is useful on multiple fronts, including:

- Reducing the negative impacts of our production activities on the environment.
- The identification of potential risks that may affect our activities.
- The fulfilment of legislative obligations in the environmental field.
- Strengthening our market position. Furthermore, ISO 14001 helps extend our reach along the value chain, benefiting all stages of our products' life cycle.

## 5.2 Resource Management

We are committed to using the resources necessary to carry out our activities as efficiently as possible, to reduce waste, and to constantly monitor our consumption.

Among those we keep under control there is water, even though it is a secondary item in our consumption.

Water consumption in 2022:

**961** m<sup>3</sup>

In 2021, water consumption was 1308 m<sup>3</sup> ; we have therefore reduced our consumption by about 26% compared to the previous year. NPS facilities also grant a saving of:

**22%** of water compared to reinforced concrete structures.\*

Turning to energy consumption, in 2020 we installed the first photovoltaic panels with a theoretical maximum power of about 20 kWp at one of our production plant departments, generating about 1 per cent of our total energy consumption in 2022.

In addition, in 2022, we signed a power purchase agreement through Guarantee of Origin (GO), with the guarantee that all electricity purchased from the grid comes from renewable sources.

The table below show details of the energy consumption of our production plant in 2022.

\*Comparative LCA analysis between the NPS system and conventional steel and reinforced concrete structures - Multi-storey building by Prof. Chiara Calderini, Chiara Piccardo with the collaboration of Eng. Simone Caffè, DICCA - Department of Civil, Chemical and Environmental Engineering of the University of Genoa and with the support of Eng. Alessio Argentoni



Energy consumption by energy source GJ	2022	2021
Natural gas	206	245
Electricity purchased from the grid	2.318	1.904
of which from renewable sources	100%	13%
Coal	0%	13%
Natural Gas	0%	64%
Petroleum products	0%	1%
Nuclear	0%	5%
Other sources	0%	5%
Electricity self-generated by photovoltaic system and consumed	26	82
Self-generated electricity from photovoltaic plant and sold	0	0
Total energy consumption	2.525	2.232

Thanks to the comparative study conducted in collaboration with the University of Genoa, we have quantified the energy consumption of NPS® structures, which guarantee a saving of 33% when compared to steel structures and 21% when compared to reinforced concrete structures. The life cycle analysis and performance comparison of individual products is based on an existing case study: a multi-storey building of tertiary use built with the NPS® system and located in the Swiss municipality of Aigle.

In 2021 we set for ourselves the goal of increasing the degree of digitization of the company: an initial result of 2022 was the purchase of 400 paper reams, about one third less than in 2019.

Aware that sustainability requires a path of

continuous improvement, we have set the following targets with regard to the consumption of material and energy resources:

- Further reducing the amount of paper purchased by digitising internal processes.
- Installing new photovoltaic panels on the roof of the production plant.

### 5.3 Emissions and waste

Our production processes inevitably generate GHG emissions into the atmosphere. Although we have no direct control on some of them, we consider it important to report on them in a transparent manner.

The following table shows the emissions from the use of natural gas as a fuel in the reporting year.





Direct GHG emissions (Scope 1)	2022	2021
CO <sub>2</sub> eq. (ton)	11,6	15,5
Other significant emissions into the atmosphere (Kg)	2022	2021
NO <sub>x</sub>	5,28	6,3
SO <sup>2</sup>	0,13	0,15
CO	3,2	3,8
PM < 2,5	0,02	0,03

From the aforementioned comparative study carried out in collaboration with Studio Fieschi & associates, we derived the potential reduction of CO<sub>2</sub> emissions due to the use of NPS® structures for an entire multistorey building we designed. This reduction is 60% if we compare the building with the equivalent steel structure, 61% if the comparison is with an equivalent reinforced concrete structure and 45% with the equivalent structure built with generic precast elements.

As far as waste production is concerned, we program the steel processing with 4.0 machines and limit scrap, which is then reused for other products or sold and recycled.

Below is a breakdown of the waste produced at the production site in Via Volta 36 in 2022. No data are available for the waste produced at the head office in Via Meucci 26.



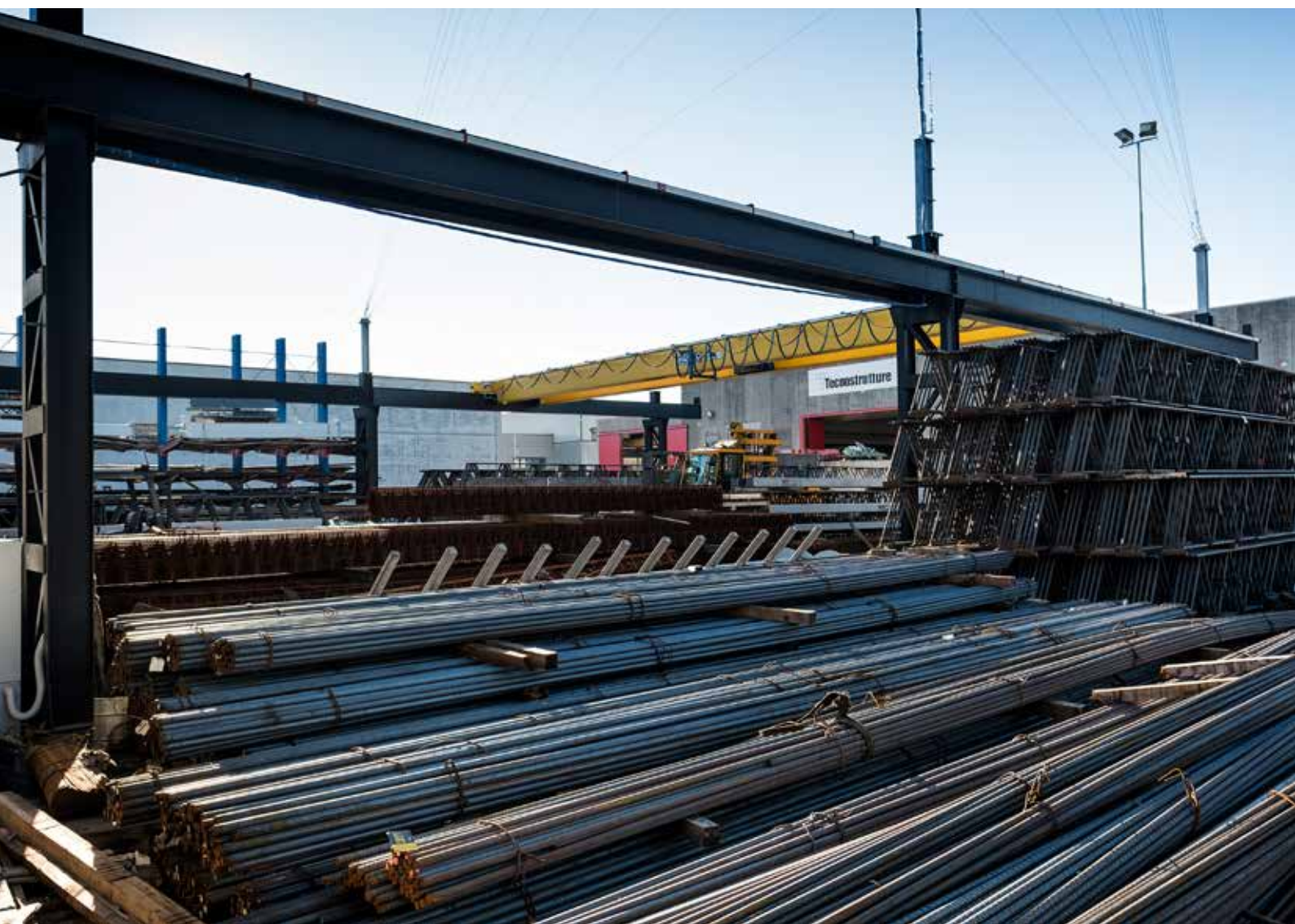
Waste produced (ton)		2022	2021
First level CER code	Description of waste		
12 - Wastes from surface physical and mechanical processing and treatment metals and plastics	Ferrous metal filings and shavings	-	24
15 - Packaging waste, absorbents, rags, filter materials and protective clothing (not otherwise specified)	Mixed Material Packaging	4	11
16 - Unspecified wastes otherwise in the list	Discarded equipment, other than	-	10
17 - Waste from Construction and Demolition Operations	Cement waste	17	42
	Iron and steel waste	966	751
	Waste from construction and demolition	15	43
20 - Municipal Waste	Septic tank sludge	-	2
Total		1.002	883

All waste produced in the production plant is intended for recovery, as shown in the table below.

Hazardousness of waste produced (ton)	2022	2021
Hazardous waste intended for disposal	0	0
Hazardous waste not intended for disposal	0	0
Non-hazardous waste for disposal	0	0
Non-hazardous waste not destined for disposal	1.002	880

We set ourselves the additional goal of progressively reducing the amount of waste generated by production and office operations.

In this process, an important contribution comes from the NPS system, which consists of tailor-made products that do not require transport packaging and eliminate the problem of handling wrappings. In addition, since the structures are self-supporting and do not require provisional works, we have seen a significant reduction in formwork, timber and props and avoided the transport of these materials. These characteristics allow for more credits in the LEED certification system.



## 5.4 Materials and supply chain sustainability

As a company, we have always supported the traceability of raw materials through product certification and the use of a building register including a material inventory.

The EPDs of NPS® products provide information about the materials used and the recycled content. In the beams and columns of this system, a share of recycled material is always guaranteed, which can be up to 93% in the case of steel. In addition, by exploiting the structural efficiency of the combination of steel and concrete, compact sections are obtained that reduce the use of raw materials. At the end life 100 per cent of the structural steel in NPS® elements can be recovered through a remelting process and reconverted into other structural steel without loss of properties. Once the end-of-waste stage is reached, the concrete can be used as an aggregate in new concrete through a further grinding process that can effectively replace virgin material.

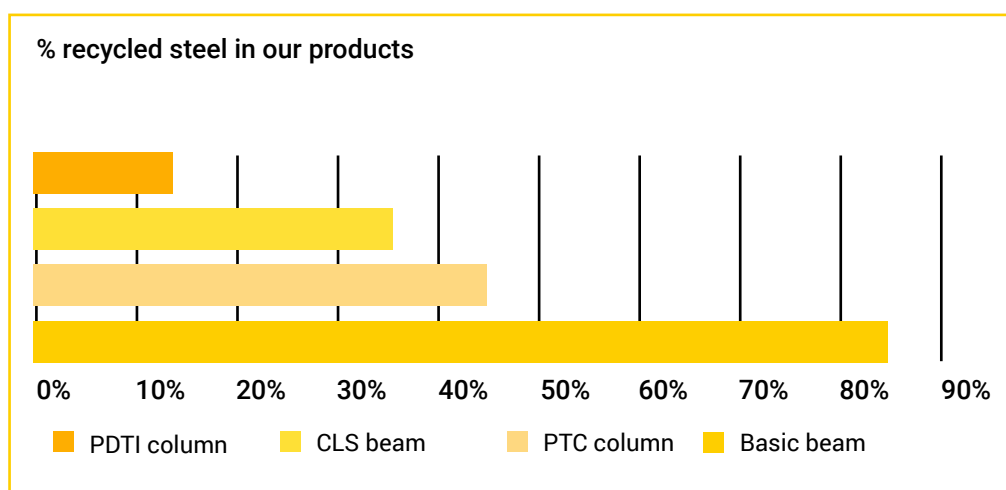
Below are the quantities of materials used in production.

Materials used for production (ton)	2022	2021
Total	13.622	9.386
Steel	8.522	6.386
Concrete	5.100	3.000

Since steel is the main raw material we procure, we have created a rating of suppliers based on the percentage of recycled post-consumption used in production, by directly requesting the information and analyzing the documentation and certifications that can attest to this data. 15 of our main suppliers provided the required documentation. It turned out that most suppliers of round products can supply us with items with a high recycled percentage, while suppliers of flat products tend to supply items with a low percentage. In order to continuously improve the sustainability of our supply chain, we have set the goal of communicating to our raw material suppliers that we will use the percentage of recycled content in the materials as a reward criterion in the selection.

2022 was a critical year for procurement, but in the future, we intend to favour suppliers who can guarantee and certify high quantities of post-consumption recycled steel.

We currently declare in the EPDs of our products the percentages of recycled steel shown in the following chart.

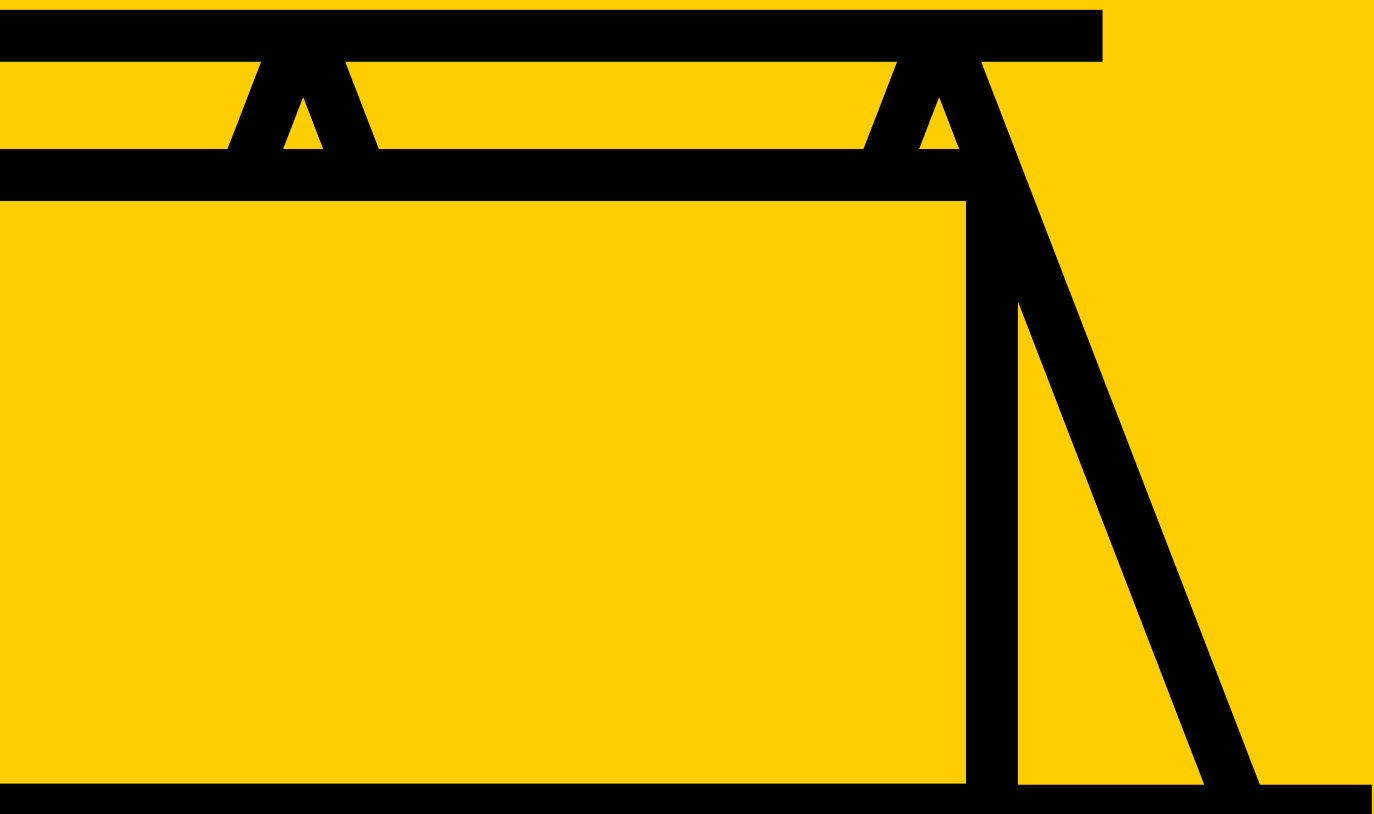








# Chapter 6



**In some respects, the construction sector can be considered rather traditionalist and conservative; in order to contribute to its innovation in terms of sustainability, efficiency and safety, we consider it essential to create knowledge and awareness at all levels.**

**The first level touches us closely and concerns our workers, with whom we want to establish mutually satisfying relationships, certain that their well-being is a contributing factor to our improvement.**

**The second level of relations includes all actors outside our organisation; in this regard, we have been working for years in promoting knowledge on the topics that distinguish us, also through collaborations with important research organisations and active participation in sector associations.**

# Relationship creation and management

## 6.1 Our workers

At the end of the reporting year, our workforce comprised 79 direct employees and 8 workers employed under outsourcing contracts. Even in contractual forms there can be aspects that say something about the sustainability of a company. As a production company, we try to give preference to creating of stable, long-term employment contracts: 87 per cent of our employees have permanent contracts and 96 per cent work with us full-time.

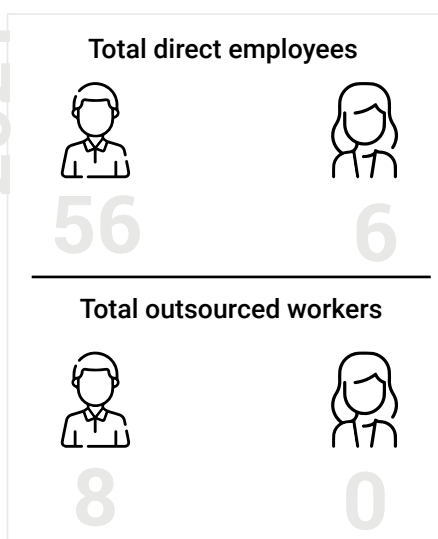
We resort to temporary work in order to cope with large orders and where it is necessary to increase the workforce for a limited period. Our goal remains to create mutually satisfying relationships: it is no coincidence that many of the workers who start working in this way are later hired as direct employees.

2022

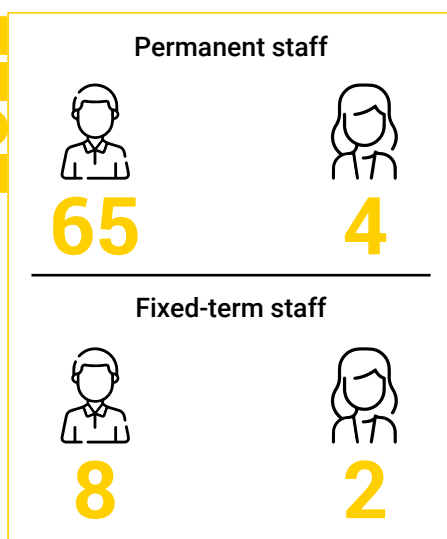


Headcount as at 31/12/2022

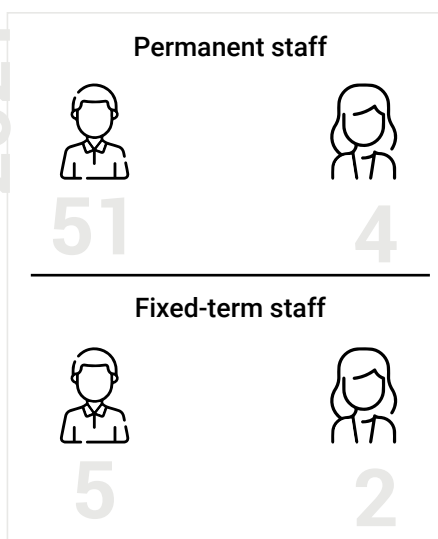
2021



2022



2021



\* Given the geographical location of Tecnostrutture's premises, all counted workers refer to the Italian geographical area.

Since 2019, we have established the Tecnostrutture Sustainability Committee, which aims to make sustainability a widespread and shared aspect in the company.

### **Some of us have the floor...**

The drafting of the first report of sustainability proved to be a useful activity to spread the culture of sustainability in our company. Although we have been undertaking righteous actions for years, with this document we have finally systematised and recounted them, giving them the right visibility, especially regarding social and economic aspects. Moreover, the topics that were covered in the report, have been shared both within the company and externally, in our families and communities and in those of many colleagues.

In our work as Sustainability Committee there was certainly no shortage of difficulties. We have stumbled upon complex issues, which had to be organised according to a precise standard and translated into concrete future goals. Despite the complications and the short time available, the results were satisfying and the process in which we were involved became a valuable learning opportunity. In the future, the sustainability report will continue to be a fundamental tool for communicating our way of doing sustainability in an effective and essential way. It will be our task of setting ourselves increasingly challenging goals and striving to achieve them, while coping with the changes that will affect the company and the environment in which it operates.

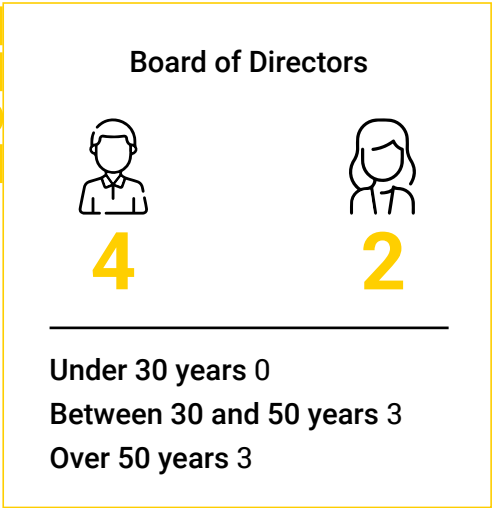
Tecnostrutture Sustainability Committee



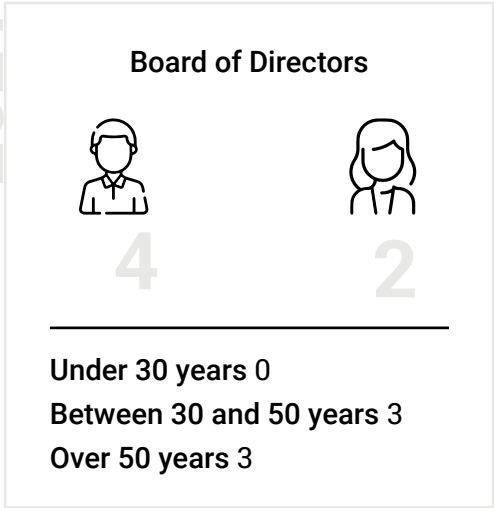


In our relations with our employees, we are committed to avoiding any form of discrimination based on factors such as age, gender, sexual orientation, health status, ethnicity, nationality, political opinions and religious beliefs. We are aware that a full valorisation of human resources can be realised above all by respecting diversity and striving for equal opportunities. To demonstrate their importance, we decided to formalise these principles within our first Code of Ethics.

2022



2021



2022



2021



2022

## Directors



1



0

Under 30 years 0  
Between 30 and 50 years 0  
Over 50 years 1

2021

## Directors



0



0

Under 30 years 0  
Between 30 and 50 years 0  
Over 50 years 0

2022

## Employees



23



6

Under 30 years 8  
Between 30 and 50 years 16  
Over 50 years 5

2021

## Employees



22



6

Under 30 years 9  
Between 30 and 50 years 14  
Over 50 years 5

2022

## Workers



48



0

Under 30 years 9  
Between 30 and 50 years 26  
Over 50 years 13

2021

## Workers



33



0

Under 30 years 7  
Between 30 and 50 years 16  
Over 50 years 10

The year 2022 saw an increase in the number of our resources: we hired 36 direct employees and 17 temporary workers. As in the past, several nationalities in our production plant are present among the newly hired direct employees, which for us represent an element of richness and a continuous source of stimulation that pushes us towards preserving diversity. The 19 terminations during the year include direct employees who left the company voluntarily and through retirement. Of the 25 terminations relating to temporary staff, 14 were due to recruitment as direct employees.

Outgoing turnover* by gender, age group and geographical area - Direct employees		2022	2021
Number of recruitments in the year		36	23
	Men	33	21
	Women	3	2
	<hr/>		
	Under 30	11	10
	Between 30 and 50 years	18	0
	Over 50 years	7	5
	<hr/>		
	Nationalities	Italy, Afghanistan, Bangladesh, China, Ivory Coast, Guinea, Morocco, Moldova, Nigeria, Senegal, Serbia, Sri Lanka	Bengali Egyptian Russian Indian Italian Kuwaiti Luxembourgish Moldavian Romanian
	<hr/>		
	Hiring rate	46%	37%

Incoming Turnover* by Gender, age group and geographical area - Outsourced		2022	2021
Number of recruitments in the year		17	26
	Men	17	25
	Women	0	1
	<hr/>		
	Under 30	7	11
	Between 30 and 50 years	5	11
	Over 50 years	5	4
	<hr/>		
	Hiring rate	340%	325%



Incoming turnover* by gender, age group and geographical area – Direct employees		2022	2021
Number of terminations in the year		19	12
	Men	16	10
	Women	3	2
	Under 30	9	3
	Between 30 and 50 years	6	6
	Over 50 years	4	3
	Nationalities	Italy, Moldova, China, Russia, Senegal, Sri Lanka	Italian Bosnian
	Negative turnover rate	24%	19%

Outgoing turnover* by gender, age group and geographical area – Outsourced		2022	2021
Number of terminations in the year		25	20
	Men	25	19
	Women	0	1
	Under 30	9	6
	Between 30 and 50 years	12	6
	Over 50 years	4	6
	Nationalities	500%	250%

\*Inflow and outflow turnover rates are calculated by dividing recruitments and terminations recorded during 2022 by the number of employees and temporary staff respectively



In 2022, we organized another corporate volunteering day, which involved employees and their families in a waste collection activity in Noventa di Piave. It was organised in collaboration with the local Legambiente club and the Veritas Group. This initiative generated a double positive effect: it was an opportunity to create cohesion and to make a concrete contribution to the environmental protection of our territory.

In addition, for Christmas 2022, we decided to give employees and collaborators a gift that would tell a story, the story of the pastry chefs of the Padua prison: a panettone which yielded from their work.

Finally, since 2009 we have been organizing In the office with mum and dad, an initiative that has now reached its seventh edition and has become over the years a real open day in which our employees have the opportunity to introduce their families and, in particular, their children, to their work reality.

## **6.2 The well-being and professional growth of workers**

First and foremost, we protect the well-being of our employees by guaranteeing them the rights provided by the law and by the relevant National Collective Labour Agreement (CCNL), that of metalworking industry. The company management is responsible for defining the remuneration policies, respecting the principles of fairness of tasks, responsibilities and previous experience. In the reporting year, the annual remuneration rate was about 170%<sup>3</sup>. In 2022, there was no salary adjustment for the highest wage earner.

Next, we value and give importance to health and safety aspects. We pay attention to these in all the contexts in which we operate: in our factory, in our offices, but also on the construction sites where our products are installed.

At our plant in Noventa di Piave, we do not have an employee health and safety management system, but we do comply with the national regulations on this topic (Legislative Decree 81/08). To do this, we use the support of an external consultant who updated our Risk Assessment Document (DVR) in 2021 following special inspections that facilitated an in-depth analysis of processes. This tool allows us identify the main risks to which our employees are exposed, such as crushing, cuts and liquid splashes from the cement used in our products. The figure of the Prevention and Protection Service Manager (RSPP) is also outsourced. On the other hand, there is a Workers' Safety Representative (RLS) in the company who collects reports from colleagues on possible inaccuracies in the application of procedures. An emergency coordinator is also constantly present in the production phases.

Finally, we provided 600 hours of health and safety training to our employees during the reporting year.

In 2022 we had seven cases of accidents with a prognosis of more than two days among direct workers. However, our goal remains to reduce the accidents rate every year.

<sup>3</sup> The wage rate is calculated as the ratio of the highest annual salary to the average salary of all employees (excluding the highest).



Accidents at work	2022	2021
Man hours worked (employees)	134.354	106.886
n of recordable accidents	7	4
n of serious accidents	0	0
fatal accidents	0	0
Recordable accident rate*	52	7,5
Serious accident rate*	0	0,0
Death rate*	0	0,0
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Man-hours worked (interims)	19.112	31.583
n of recordable accidents	2	0
n of serious accidents	0	0
fatal accidents	0	0
Recordable accident rate*	105	0
Serious accident rate*	0	0
Death rate*	0	0

\*Values calculated on 200,000 hours worked

All employees receive mandatory training in terms of health and safety at work. We strongly believe in the professional development of our employees, which is why we organise specific training courses on technical business aspects, product development and commercial management.

In July 2022, we signed a declaration of commitment to the use of Level(s) indicators, which also included providing 20 of our employees with a series of educational courses created by GBC Italy on various environmental sustainability topics (LCA, LCC and EPD).

Since October, we have also been hosting trainees in our company for the BUILD UP Skills project, which aims to provide construction professionals with the skills they need to meet the challenges of the circular approach throughout the building lifecycle.

In 2022, we have generated a total of 1,033 hours of training, of which 849 to direct employees and 184 to temporary employees. This results in a per-capita value of about 11 hours for direct employees and 37 hours for temporary employees. With a view to constant improvement, we set ourselves the goal of carrying out a preliminary feasibility study to implement a training course to improve collaboration and communication between the different departments.

## 2022

Average hours of yearly training pro-capita by gender and employment category - direct employees

Average hours of training per year by gender



11,7



30,0

Average hours of training per year by employment category:

Executives 15

Directors 1

Employees 25

Workers 6

## 2021

Average hours of yearly training pro-capita by gender and employment category - direct employees

Average hours of training per year by gender



21,5



34,5

Ore medie di formazione annua per categoria d'impiego:

Executives 28

Directors -

Employees 36

Workers 6

### 6.3 Associationism and external relations

We have applied the same level of innovation to the development of marketing and communication strategies as we do to our products. We are aware that it is useful to propose ourselves as promoters of the dissemination of the culture of our products: this is a fundamental effort to

to increase awareness of the benefits of their use and to contribute to the development of the sector in the relevant market.

To this end, we have created a real virtual community of reference that brings together industry experts such as designers, architects and engineers, customers and colleagues who consider us a point of reference.

We dialogue with this audience through multiple communication tools:

#### Social Media



9.536 followers with publications in Italian, French, German and English



12.074 followers with content in Italian



Newsletter



Sito Internet



YouTube Channel, 1.470 subscribers



Tecnostрукture Academy  
7.456 users and  
17.010 page views

Tecnostрукture ACADEMY is a project we are very proud of: a container available in Italian and English designed for all those who work in the world of design, both experts and students who begin to approach new construction technologies. Conceived by our founder in 2019, the platform is the fruit of the work of the communication, R&D and technical teams. Its goal is to share knowledge, information and resources on mixed steel and concrete structures with industry professionals.

Tecnostрукture ACADEMY is a place to find videos, articles, software and publications on the most important aspects of our company, our products and our industry. To offer different and above all authoritative points of view on the topics we deal with we often rely on external experts. In 2022 ACADEMY counted 21,200 views, but our goal is constant growth of this figure because we want to increase the dissemination of content more and more.

Our desire to network for the dissemination of the culture of our products is also manifested through active participation at the technical seminars and conferences of the seven industry associations to which we belong.





As far as associationism is concerned, in 2022 we have:

- Provided a video contribution to the launch of the first Italian Roadmap for decarbonization and sustainable transformation in buildings by GBC Italy;
- Attended a two-day conference for structural engineers in Germany;
- Attended a three-day congress for prefabs in Ulm;
- Sponsored the International Tall Buildings Conference in Milan;
- Organized a training seminar at the Order of Engineers of the Province of Florence on how to read EPDs, embodied carbon and mixed structures together with GBC Italy;
- Prepared, in cooperation with GBC Italy, a training meeting at the Order of Engineers and Architects of the Province of Padua on the topic of environmental sustainability.

Since 2021 Giulia Daniele has been an Ambassador of the international #BuildingLife project, promoted by GBC. The task of the Ambassador is to be the spokesperson for the members of the construction supply chain by supporting and promoting this project, which aims to demand the commitment of the European Commission and national governments in concrete policies to tackle the total resource and carbon footprint of our industry.

In 2022, during the training meeting on ESG topics which was dedicated to officers of the North East area held by Intesa Sanpaolo, Giulia Daniele spoke about our best practices in order to promote new approaches to companies in the area.

We believe in the dialogue between universities and companies: that is why over the years we have developed partnerships with important academic institutions - especially engineering and architecture faculties - with whom we organize research and development activities, training meetings and company tours, to get to know and be known by the designers of tomorrow

#### PARTNER ACCADEMICI



Tongji University  
Shanghai



Università di  
Padova



Università di  
Napoli Federico II



University  
College of  
London



UNIVERSITÀ DI PISA  
Università di Pisa



Università di  
Udine



UNIVERSITÀ DEGLI STUDI  
DI GENOVA  
Università di  
Genova



ETH di Zurigo



IUAV di Venezia



Università di  
Camerino



EUCENTRE



University of  
Washington



Universität  
Bochum

In 2022 we have:

- Designed a series of one-hour webinars on the topics of site speed (133 participants), design (over 300 participants) and seismic (140 participants);
- Designed a webinar on the topic of schools and NRP (55 participants);
- Collaborated on the dissertation of a University of Genoa student on Building for Disassembly.

Our goal for the coming years is to increase the number of collaborations with university and scientific partners, but also our membership in the most significant industry associations.

As far as relations with the territory are concerned, in 2022 we have:

- Financially supported the festival of the Municipality of Eraclea;
- Participated in the 30th 3x3000 relay in Eraclea Mare;
- Involved the employees in the decision and decided to donate EUR 1,500 to the Association for the Handicapped of Eraclea - Casa dell'Accoglienza. We then visited the facility together with the association's coordinator, Elena Suvac, who gave us the opportunity to get to know the approximately 30 people employed in the workshops together with the educators;
- Organised a lottery to redistribute among employees the corporate gifts received at Christmas;
- Sponsored the Portopiccolo boat NPSbyTecnostrutture, which came third at the 54th Barcolana;
- After a suspension of the initiative caused by the Covid-19 pandemic, we have continued to host periodic visits to technical institutes as part of the SME Day promoted by Unindustria Treviso; this meeting opportunity is also a way to look for young talent to join our staff.

## APPENDIX













Fuel		LHV (Lower Calorific Value)		Density		Emission factors				
						NOx [g/GJ]	SO2 [g/GJ]	CO [g/GJ]	PM < 2,5 [g/GJ]	CO2 [kg/GJ]
Natural gas	m³	34,8	MJ/m³	0,75	kg/m³	25,6	0,61	15,56	0,11	62,3

### Data source:

#### Natural gas

- Emission factors and LHV (PCI): Ecoinvent 3.8 'Heat, district or industrial, natural gas {Europe without Switzerland}| heat production, natural gas, at industrial furnace low-NOx >100kW | Alloc Rec, U'
- Density: GESTIS Substance Database Information system on hazardous substances of the German Social Accident Insurance (IFA, [www.dguv.de](http://www.dguv.de))

## THE COMPANY'S OBJECTIVES AND COMMITMENTS

Material theme	Objective	Target to 2022	Attainment Status	Target tol 2023	SDGs of reference
<b>Economic soundness</b>	Increase the redistribution of value with reference to the socio-economic development of the territory in which	Increasing the share of investment in the local community	The goal was achieved. 1500 euros were invested in the APHE association in Heraclea.	Increase the share of investment in the local community	
<b>Loyalty and transparency</b>	Apply the principles of ethics and transparency of operations to counter corruption and anti-competitive behaviour.	Drawing up the code of ethics of Tecnostrutture	The goal was achieved. The code of ethics was drafted and approved by the Board of Directors.	Communicate the principles of the code of ethics in the company through a special meeting and by posting it on the physical and online bulletin boards	
<b>Compliance and enforcement</b>	Comply with the relevant laws and regulations governing the company's operations and the production of goods.	Reduce the number of non-conformities received on audits of company	The target was achieved. No non-conformities were recorded.	Keep the number of non-conformities received on company management system audits equal to 0	
<b>Search and innovation</b>	Pursue research and innovation activities in order to contribute to the development of the sector and the improvement of product quality.	Increase man-hours dedicated to research and development activities	The target was not achieved. A trainee was hired for 300 hours, but overall the total number of hours spent on research and development is no higher than the previous year. The target is proposed again for 2023.	<ul style="list-style-type: none"> <li>• Increase man-hours dedicated to research and development activities</li> <li>• Increase investment in research and development by at least 20 per cent</li> </ul>	
<b>Customer satisfaction</b>	Pursuing customer satisfaction in the quality of the products supplied and at all stages of the services provided	Increasing our customers' satisfaction	The target was achieved. 77% of the respondents were satisfied with our products and services, compared to 75% in the previous year.	<ul style="list-style-type: none"> <li>• Increasing our customers' satisfaction</li> <li>• Updating the evaluation questionnaire and defining new KPIs based on the previous year's results.</li> </ul>	
		Reducing reports of non-compliant products	It was not possible to assess the achievement of the target. The monitoring system was strengthened compared to the previous year, which is why a higher number of non-conformities were recorded. The target is re-set for 2023.	Reducing reports of non-compliant products	
<b>Circulation of raw materials</b>	Establishing a system to assess suppliers' approach to environmental sustainability	Mapping suppliers according to the share of recycled materials they use in products addressed to	The objective is being achieved. Suppliers have been mapped, but an in-depth examination of the declared recycled quotas in products will be necessary in order to be able to favour the most virtuous suppliers. This activity will be the subject of the target for 2023.	Make the percentage of recycled material a rewarding criterion when choosing suppliers and communicate this to them.	
<b>Resilient and sustainable</b>	Promoting the robustness, durability and safety of supplied products	Assessing the environmental benefits of Techno-structures products	The goal was achieved. Several environmental impact assessment studies of our products have been conducted (LCA and Carbon footprint) and collaborated on a	Application of the "Design for disassembly" in the development of the NPS construction system.	
<b>Production sustainability</b>	Reducing impacts related to energy consumption	Achieving 100% energy from renewable sources with GO by 2022	The goal was achieved. A power purchase agreement was signed through GO.	Installation of new photovoltaic panels to increase the share of self-generated energy from renewable sources.	
	Pursuing dematerialisation in business operations management	Progressively reduce the amount of paper purchased	The target was achieved. The amount of paper purchased has gradually decreased over the years; in 2022, approximately 30% less paper was purchased than in 2019.	Progressively reducing the amount of paper purchased	
	Pursue the reduction of waste produced both in production and in offices	Progressively reducing the amount of waste produced	The target was achieved. In absolute terms, the waste generated increased by 13% compared to the previous year due to the increase in rebar and steel waste, but in relation to the materials used for production, the waste produced was 2% less than in the previous year. For all other waste categories (cement, construction and demolition activities, packaging) there was a decrease, even more	Progressively reducing the amount of waste produced	
<b>Progressively reducing the amount of waste produced</b>	Pursuing the health and safety of workers	<ul style="list-style-type: none"> <li>• Reducing the accident rate</li> <li>• Assessing the feasibility of implementing a system for defining training and career development plans</li> </ul>	<ul style="list-style-type: none"> <li>• The accident rate reduction target was not achieved. Therefore, it is proposed again for 2023.</li> <li>• It was not possible to continue the activity due to an internal change of project manager during the year.</li> </ul> <p>In 2023, specific actions will be implemented to improve the welfare of our employees</p>	<ul style="list-style-type: none"> <li>• Reducing the accident rate</li> <li>• Increase investment in employee well-being.</li> <li>• Implement a training course to improve collaboration and communication between the different departments</li> </ul>	
<b>Partnerships and associations</b>	Creating networks and collaborations to foster innovation and development in the sector	Increasing participation in industry associations	The goal was achieved. Tecnostrutture joined a German association: the Federal Association of Prestressed Concrete Slabs (BVSF)	Participating in industry working tables through direct company engagement	
<b>Education and training</b>	Promoting the culture of innovation (offsite) in the construction sector	<ul style="list-style-type: none"> <li>• Collaborating with universities and research centres</li> <li>• Increasing the dissemination and promotion of Academy</li> </ul>	The targets have been met and will also be met in 2023.	<ul style="list-style-type: none"> <li>• Collaborating with universities and research centres</li> <li>• Increasing the dissemination and promotion of the Academy</li> </ul>	



## MANAGEMENT MODE

To simplify the development of management mode reporting, the priority themes for Tecnostrutture have been aggregated into three macro-themes that share the management approach.

Macrotheme	Priority themes for Tecnostrutture
1. GENERATED VALUE	Economic solidity Loyalty and transparency Compliance and legal compliance Research and innovation Customer satisfaction
2. ENVIRONMENTAL RESPONSIBILITY	Production sustainability Circularity of raw materials Resilient and sustainable products
3. SOCIAL RESPONSIBILITY	Health and psycho-physical well-being of workers Education and training Partnerships and associations

## PROCESSES COMMON TO ALL MACRO- THEMES

### MOTIVATIONS AND BOUNDARIES

The material topics were identified by applying the principles for defining the contents of the report and through the stakeholder engagement and materiality analysis processes described in detail in the methodological note. Subsequently, through a discussion with company management, the disclosures to be reported were selected for each material theme identified.

For each material theme of Tecnostrutture, the perimeter within which the potential impact may fall was identified:

- Within company boundaries: in this case, the impact primarily affects internal stakeholders
- Outside the company boundaries: it is mainly external stakeholders who are affected by the impact
- Inside and outside the company boundaries: the impact affects all stakeholders.

In the management of material issues, Tecnostrutture considers both the possible impact it may cause directly and that which may indirectly result from its actions.

## MANAGEMENT TOOLS

### POLICIES and COMMITMENTS

We aim to ensure products and services that meet the needs of customers, while respecting the current regulations. This is made possible through a high level of professionalism throughout the production process. With the publication of this second report, we also want to demonstrate our willingness and commitment to continue the path towards sustainability. This will and this commitment arise from the company management, as described in the letter at the beginning of the

report, and are transmitted to all levels of the company.

The commitment to ESG issues is also confirmed by membership of associations and networks that contribute to the ecological transition of the construction sector.

## **OBJECTIVES AND TARGETS**

The goals and targets that Tecnostrutture sets for itself on its path to sustainability can be found in this report. They are of an improving nature compared to national regulations and will be monitored annually. Other more specific quality and environmental improvement objectives are identified and monitored in the management systems implemented by the company in accordance with the relevant international standards (ISO 9001 and 14001).

## **RESOURCES**

The responsibility for allocating human and financial resources lies with the Board of Directors.

## **GRIEVANCE MECHANISMS**

In Tecnostrutture there are complaint collection systems provided for by the quality and environmental management systems. Furthermore, with the publication of this Report, all stakeholders will be able to forward requests and complaints to the appropriate mailbox [esg@tecnostrutture.eu](mailto:esg@tecnostrutture.eu).

## **SPECIFIC ACTIONS**

Tecnostrutture has two support committees involved in the path towards sustainability: the Sustainability Committee, which helps the Board of Directors define the path, and the Supporters Committee, formed by company employees whose task is to spread sustainability principles within the organisation.

Tecnostrutture publishes the Sustainability Report in compliance with the main international reference standard for sustainability reporting, the GRI-Standards. The following sections detail the specific actions that Tecnostrutture implements in the field of sustainability, in relation to the material themes identified through the materiality analysis process.

## **MANAGEMENT EVALUATION**

The results of the audits performed on management systems and their annual reviews will be used to monitor the actual adequacy of the management of material issues. The disclosures of GRI standards reported in this and subsequent reports will also be used as management assessments.

## **LIABILITY**

The commitment to embrace an increasingly sustainable approach is shared by all members of the board of directors, who also assume responsibility for implementation in the development of strategies, implementation of policies, realisation of commitments and achievement of objectives. The achievement of the specific objectives identified in the company's management system improvement plans, on the other hand, are delegated to those responsible for implementing the relevant systems. On the other hand, there are no procedures in the company aimed at preventing and mitigating conflicts of interest.

## GENERATED VALUE

### MOTIVATIONS AND BOUNDARIES

#### Material theme

Material theme	Related impacts	Motivations and boundaries	Material topics from GRI Standard	Informative
<b>Economic soundness</b>	<ul style="list-style-type: none"> <li>Increased competitiveness of the company</li> <li>Contribution to the economic stability of the company's collaborators</li> <li>Economic growth of the region through the recruitment of local employees</li> </ul>	The generation of value for the company that determines its soundness and the ability to redistribute value both within and outside the company boundaries. Any related impacts could affect both inside and outside the company boundaries.	GRI 201: Performance economic 2016	201-1 Direct economic value generated and distributed 201-4 Financial assistance received from the government
<b>Loyalty and transparency</b>	<ul style="list-style-type: none"> <li>Risk of incurring sanctions for non-compliance with applicable legislation on corruption, competitiveness and taxation</li> <li>Improvement of the reputation of the company</li> <li>Contribution to the development of a more ethical society</li> </ul>	Acting with respect for all means and techniques in accordance with the principles of fairness professional, condemning and rejecting corruption and unfair competition. Any related impacts could prevalently affect outside the company boundaries	GRI 205: Anti-corruption 2016 GRI 206: Behaviour anti-competitive 2016	205-1 Transactions assessed for corruption risks 205-3 Established incidents of corruption and actions taken 206-1 Actions for anti-corrupt behaviour, antitrust and monopolistic practices
<b>Compliance and enforcement</b>	<ul style="list-style-type: none"> <li>Improvement of the company's reputation</li> <li>Risk of incurring penalties</li> </ul>	The management of the company in compliance with national and international laws, rules and regulations governing its operations and the use of its products. Any related impacts could prevalently have an effect outside the company boundaries.		
<b>Search and innovation</b>	<ul style="list-style-type: none"> <li>Increased competitiveness of the company</li> <li>Improvement of the company's reputation</li> <li>Contribution to the transition to a low-carbon economy through the development of sustainable and innovative services/products</li> </ul>	Research and technological innovation as strategic elements to increase the knowledge and competitiveness of the company to pursue continuous improvement and the development of ever more efficient construction methods. Any related impacts could affect both inside and outside the company boundaries.	-	<p>No. of hours dedicated to research and development activities</p> <p>Amount of investments made in research and development activities</p>
<b>Customer satisfaction</b>	<ul style="list-style-type: none"> <li>Improving performance and supply efficiency</li> <li>Consolidation of the relationship of trust with the company</li> </ul>	Ensure customer satisfaction with the quality of the products and the efficiency of the services provided in order to strengthen customer loyalty to the brand. Any related impacts could have an effect both inside and outside the company boundaries.	-	% of satisfied customers

## **MANAGEMENT TOOLS**

### **POLICIES and COMMITMENTS**

The main motivation of any economic activity is the creation of value, a goal linked to the company's need for growth and development that reflects the effects of corporate strategies. This priority objective is the determining element for the survival of the company and the policies and commitments in favour of the main stakeholders also derive from it. For Tecnostrutture, the redistribution of the value generated to the main stakeholders is an aspect of identity. Tecnostrutture is committed to scrupulously complying with all applicable standards and laws in the areas of quality, safety, the environment, and anti-monopolistic and anti-trust behaviour, striving for continuous improvement, including a constant drive for development and innovation, to cultivate customer satisfaction.

### **OBJECTIVES AND TARGETS**

The objectives and targets assumed for the material topics of this macro-theme are developed as described in the section 'Processes common to all macro-themes'.

### **RESOURCES**

The personnel and financial resources for the management of this macro-theme are identified by the Board of Directors.

### **GRIEVANCE MECHANISMS**

The mechanisms by which any complaints relating to this macro-theme can be made are developed as described in the section Processes common to all macro-themes.

### **SPECIFIC ACTIONS**

Economic soundness:

- The Board of Directors periodically evaluates the profit and loss accounts, company performance and the risks and opportunities related to value generation and its redistribution.
- For the redistribution of the value, money donations to specific local and national associations are confirmed annually. When, during the realisation of company activities, further possibilities for donations emerge, they are communicated to the Board of Directors, which decides whether to subscribe to them.

Loyalty, transparency and compliance with laws:

- The management systems implemented ensure the periodic monitoring of relevant legislation in order to identify new laws or regulations applicable to Tecnostrutture and their compliance.

Research and innovation:

- Each year, multiple research and development projects are carried out to improve various areas such as increasing technical performance and product sustainability, worker health and safety, and efficiency in production and in the management of products in their use phase and end-of-life.
- An annual questionnaire is sent to customers to assess their level of satisfaction with the quality of the products and services provided by Tecnostrutture.
- In order to guarantee high levels of product quality and service efficiency, we take care of the relationship with our customers in order to support them in the management of ordinary and extraordinary activities.



## MANAGEMENT EVALUATION

The evaluation mechanisms on the management of the material topics under the macro-theme 'Generation of Value' are developed as described in the section 'Processes common to all macro-themes'.

## LIABILITY

The responsibilities for the management of the material topics related to the macro-theme "Generated Value" are assigned as described in the section "Processes common to all macro-themes".

## ENVIRONMENTAL RESPONSIBILITY

### MOTIVATIONS AND BOUNDARIES

Material theme	Related impacts	Motivations and boundaries	Material topics from GRI Standard	Informative
<b>Production sustainability</b>	<ul style="list-style-type: none"> <li>Impact on climate change</li> <li>Risk of incurring penalties for non-compliance with applicable environmental legislation</li> <li>Improvement of company reputation</li> </ul>	The adoption of practices that ensure responsible management of energy and water resources and GHG emissions. Any related impacts could have an effect inside and outside the company boundaries	GRI 302: Energy 2016 GRI 303: Water and waste water 2018 GRI 305: Emissions 2016 GRI 306: Waste 2020	302-1 Energy consumed within the organisation 303-5 Water consumption 305-1 Direct GHG emissions (Scope 1) 305-7 Nitrogen oxides (NOx), Sulphur oxides (SOx) and other significant emissions 306-1 Waste generation and significant waste-related impacts 306-2 Management of significant waste-related impacts 306-3 Waste generated 306-4 Waste not intended for disposal 306-5 Waste for Disposal
<b>Circulation of raw materials</b>	<ul style="list-style-type: none"> <li>Difficulties in approving raw materials</li> <li>Improvement of the company's reputation</li> </ul>	Favour in production the use of raw materials with a high recycled content and that meet the principles of the circular economy. Any related impacts could have an effect especially outside the company boundaries.	GRI 301: Materials 2016 GRI 308: Supplier Environmental Assessment 2016 GRI 414: Supplier Social Assessment 2016	301-1 Materials used by weight or volume 308-1 New suppliers assessed using environmental criteria
<b>Resilient and sustainable products</b>	<ul style="list-style-type: none"> <li>Reduction of time and impacts related to construction operations.</li> <li>Contribution to the well-being of society through the development of projects with a high social impact</li> </ul>	The production of robust, durable and safe products that respect the principles of environmental and social sustainability. Any related impacts could have an effect especially outside the borders company.	GRI 417: Marketing and Labelling 2016 GRI 416: Customer health and safety 2016	417-1 Information and labelling requirements for products and services 416-1 Assessment of health and safety impacts by product and service categories.

## **MANAGEMENT TOOLS**

### **POLICIES and COMMITMENTS**

The construction sector is responsible for the emission of approximately 36% CO<sub>2</sub> and 30% waste. The transition to a circular and zero-emission economy is challenging, but achievable. Accepting this challenge, Tecnostrutture has decided to involve everyone in its organisation in helping to build more sustainable buildings. The company has also identified sustainable development goals that are linked to its business and to which it can make an active contribution; among these priorities are 11 'Cities and sustainable communities', 12 'Responsible consumption and production' and 13 'Combating climate change'.

### **OBJECTIVES AND TARGETS**

The objectives and targets assumed for the material topics of this macro-theme are developed as described in the section 'Processes common to all macro-themes'.

### **RESOURCES**

The personnel and economic resources for the management of the topics are allocated by the Board of Directors.

### **GRIEVANCE MECHANISMS**

The mechanisms by which any complaints relating to this macro-theme can be made are developed as described in the section 'Processes common to all macro-themes'.

### **SPECIFIC ACTIONS**

Production sustainability

- Maintaining an environmental management system compliant with the ISO 14001:2015 standard
- Installation of new photovoltaic panels for electricity generation
- Signing a contract for the supply of electricity from renewable sources with a Guarantee of Origin.

Circulation of raw materials

- Use of recycled steel in NPS products.

Resilient and sustainable products

- Obtaining Environmental Product Declarations (EPDs) in accordance with UNI EN 15804 and ISO 14025 on NPS products to transparently communicate environmental performance by providing detailed information on their environmental impact
- Definition, with the support of a third party, of the mapping of the characteristics of Tecnostrutture products that can contribute to obtaining certain CAM and LEED and DGNB certifications.

### **MANAGEMENT EVALUATION**

The evaluation mechanisms on the management of material topics under the macro-theme 'Products' are developed as described in the section 'Processes common to all macro-themes'.

### **LIABILITY**

Responsibilities for the management of material topics related to the macro-theme 'Products' are assigned as described in the section 'Processes common to all macro-themes'.

## RESPONSABILITÀ SOCIALE

### MOTIVAZIONI E CONFINI

Material theme	Related impacts	Motivations and boundaries	Material topics from GRI Standard	Informative
<b>Security and psycho-physical well-being of workers</b>	<ul style="list-style-type: none"> <li>• Risk of sanctions for non-compliance with applicable health and safety regulations</li> <li>• Increased employee satisfaction</li> <li>• Human and professional growth of employees</li> <li>• Damage to corporate reputation in case of accidents at work</li> </ul>	The protection of the health and safety of our employees and the promotion of their well-being also through personal and professional development. Any related impacts may have an effect within the company boundaries.	GRI 2: General Disclosures 2021 GRI 401: Employment 2016 GRI 403: Occupational Health and Safety 2018	2-7 Employees 2-8 Other workers who are not employees 2-19 Remuneration policies 2-21 Annual salary rate 2-20 Processes for Determining Remuneration 2-30 Collective Bargaining Agreements 401-1 New recruitments and turnover 403-1 Occupational health and safety management system 403-2 Hazard identification, risk assessment and accident investigation 403-4 Worker participation and consultation and communication on occupational health and safety 403-5 Occupational health and safety training for workers 403-8 Workers covered by an occupational health and safety management system 403-9 Accidents at work
<b>Education and training</b>	<ul style="list-style-type: none"> <li>• Increased competitiveness of the company</li> <li>• Improvement of the company's reputation</li> </ul>	The promotion of knowledge and innovation culture in the construction sector, with particular reference to the offsite system in the national and international panorama. Any related impacts could have an effect outside the company boundaries.	GRI 404: Training and education 2016	404-1 Average hours of training per employee per year
<b>Partnerships and associations</b>	<ul style="list-style-type: none"> <li>• Increased competitiveness of the company</li> <li>• Improvement of the company's reputation</li> </ul>	The creation of collaborations and active participation in associations to share knowledge and skills in order to foster innovation and development in the sector.	GRI 2: General Disclosures 2021 GRI 204: Procurement Practices 2016 GRI 413: Local Communities 2016	2-28 Membership of associations 204-1 Proportion of expenditure to local suppliers 413-1 Activities involving local community involvement, impact assessments and development programmes

## **MANAGEMENT TOOLS**

### **POLICIES and COMMITMENTS**

The care of human resources for Tecnostrutture is an important aspect towards which the company wants to dedicate more and more resources.

Tecnostrutture's desire is to contribute to the ecological transition of the construction sector by positioning itself as an innovative company in its market. To do this, it has decided to engage in the promotion and diffusion of knowledge, also through the creation of collaborations and active participation in specific associations.

### **OBJECTIVES AND TARGETS**

The objectives and targets assumed for the material topics of this macro-theme are developed as described in the section 'Processes common to all macro-themes'.

### **RESOURCES**

The responsibility for allocating human and financial resources lies with the Board of Directors.

### **GRIEVANCE MECHANISMS**

The mechanisms by which complaints relating to this macro-issue can be made are developed as described in the section 'Processes common to all macro-issues'.

### **SPECIFIC ACTIONS**

- Organisation of company open days and volunteer days with the involvement of all our col-laboratories and their families.
- Use of multiple communication tools (e.g. social media, websites, etc.) to communicate to experts in the field, such as planners, architects and engineers, to promote the dissemination of off-site culture
- Continuous updating of the Tecnostrutture ACADEMY, a container that gathers information on products and the sector, which can be consulted by all those working in the design world.
- Active participation in conferences, webinars, events of major industry associations
- Development of collaborations with important academic partners.
- Support for the most deserving local initiatives in the area.

### **MANAGEMENT EVALUATION**

The evaluation mechanisms on the management of material issues traceable to the macro-theme are developed as described in the section 'Processes common to all macro-themes'.

### **LIABILITY**

Responsibility for the management of issues related to the area lies with the Board of Directors



## GRI CONTENT INDEX

**Statement of Use:** Tecnostrutture Srl has prepared a report in accordance with GRI Standards for the period 01/01/2022 to 31/12/2022.

**Used GRI 1:** GRI 1 - Fundamental Principles - Version 2021

**Relevant GRI industry standards:** Not available

GRI Standard	Information	Page	Omissions		
			Requirement omitted	Motivation	Explanation
<b>General information</b>					
<b>GRI 2: Informative generali 2021</b>	2-1 Organization details	12-13			
	2-2 Entities included in the reporting boundary	26			
	2-3 Reporting period, frequency and reference contact	26, 73			
	2-4 Updating information	26			
	2-5 External assurance	2			
	2-6 Activities, chain value and other business relationships	15, 20-22			
	2-7 Employees	59-60			
	2-8 Other workers who are not employees	59-60			
	2-9 Governance and composition of Governing Bodies	17-18			
	2-10 Appointment and selection of Governing Bodies	17-18			
	2-11 President of the highest governing body	17-18			
	2-12 Role of the highest governing body in managing impacts	72-79			
	2-13 Delegation of responsibilities in impact management	72-79			
	2-14 Role of the Highest Governance Body in the reporting of sustainability	72-79			
	2-15 Conflicts of interest	72-79			
	2-16 Communication of critical issues	72-79			
	2-17 Responsibilities of the highest governing body	72-79			
	2-18 Performance evaluation of the highest governing body	17			
	2-19 Remuneration policies	17			
	2-20 Processes for determining remuneration	65			
	2-21 Annual salary rate	65			
	2-22 Statement related to the sustainable development strategy	6			
	2-23 Policy Commitment	72-79			
	2-24 Integration of policy commitments	72-79			
	2-25 Processes to remedy negative impacts	72-79			
	2-26 Mechanisms for requesting clarification and raising concerns	72-79			
	2-27 Compliance with Laws and Regulations	39			
	2-28 Membership of associations	68-70			
	2-29 Approach to the stakeholder's engagement	26-27			
	2-30 Collective Bargaining Agreements	65			

GRI Standard	Information	Page	Omissions		
			Requirement omitted	Motivation	Explanation
<b>Material Themes</b>					
GRI 3: Material Themes 2021	3-1 Processes for determining material topics	29-30			
	3-2 List of material topics	29			
	3-3 Managing material themes	72-79			
<b>Generated Value</b>					
<b>Economic soundness</b>					
GRI 200: Economic 2016	201-1 Economic value directly generated and distributed	34			
	201-4 Financial assistance received from the government	34			
<b>Loyalty and transparency</b>					
GRI 200: Economic 2016	205-1 Transactions assessed for corruption risks	39			
	205-3 Established incidents of corruption and actions taken	39			
	206-1 Legal actions for anti-competitive behaviour, antitrust and monopolistic practices	39			
<b>Research and Innovation</b>					
	- Number of resources/hours employed in Research & Development activities	46			
	- Amount of investments made in research and development activities	46			
<b>Customer satisfaction</b>					
	% of satisfied customers	49			
<b>Social Responsibility</b>					
<b>Safety and psycho-physical well-being of workers</b>					
GRI 400: Social 2016	401-1 New recruitments and turnover	63-64			
	403-1 Occupational health and safety management system	65-67			
	403-2 Hazard identification, risk assessment and accident investigation	65-67			
	403-4 Worker participation, consultation and communication related to health and safety at work	65-67			
	403-5 Occupational health and safety training for workers	67			
	403-8 Workers who are covered by an occupational health and safety management system	65-67			
	403-9 Accidents at work	66			
<b>Education and Training</b>					
GRI 400: Social 2016	404-1 Average hours of training per employee per year	67			
<b>Partnerships and associations</b>					
GRI 200: Economic 2016	204-1 Proportion of expenditure to local suppliers	34			
GRI 400: Social 2016	413-1 Community Involvement Activities, Impact Assessments and Development Programs	68-70			

GRI Standard	Information	Page	Omissions		
			Requirement omitted	Motivation	Explanation
Environmental Responsibility					
Production sustainability					
GRI 300: Environmental 2016	302-1 Energy consumed within the organization	53			
	303-5 Water consumption	52			
	305-1 Direct GHG emissions (Scope 1)	53-54			
	305-7 Nitrogen oxides (NOx), Sulphur oxides (SOx) and other significant emissions	54			
	306-1 Waste generation and significant waste-related impacts	54-55			
	306-2 Managing significant Impacts Related to Waste	54-55			
	306-3 Waste generated	54			
	306-4 Waste not intended for disposal	54			
	306-5 Waste for disposal	54			
Circulation of raw materials					
GRI 300: Environmental 2016	301-1 Materials used by weight or volume	56			
	308-1 New suppliers that are assessed using environmental criteria	56			
Resilient and sustainable products					
GRI 400: Social 2016	416-1 Evaluations related to health and safety impacts for product and service categories.	46-49			
	417-1 Information and labelling requirements for products and services	46-49			

Torino, June 23<sup>rd</sup>, 2023

To the Board of Directors of  
**Tecnostrutture S.r.l.**  
and to all interested parties

## ASSURANCE STATEMENT

Intertek Italia S.p.A. (Intertek) was mandated by Tecnostrutture S.r.l. (Tecnostrutture) to carry out an independent assessment of the Sustainability Report for the year 2022, in order to verify the correct application of **GRI Standards 2021**, including the relevance and reliability of its contents with respect to stakeholders' expectations.

Intertek has not played any direct or indirect role in the preparation of the document, whose contents are the sole responsibility of Tecnostrutture.

Intertek declares its independence and absence of conflicts of interest with regard to Tecnostrutture and its stakeholders.

The assessment was accomplished considering in particular the international standard ISAE 3000 (Revised), in "limited assurance" mode.

Our task involved:

- a completeness and consistency analysis of the Sustainability Report under assessment with respect to the standards adopted by Tecnostrutture;
- the investigation of qualitative and quantitative aspects deemed to be significant for stakeholders;
- the interview on a sample basis of Tecnostrutture staff and interested parties' representatives.

## CONCLUSION

Based on the above activities and selected sample, no contrary evidence arose to let us conclude that:

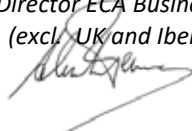
- the Sustainability Report of Tecnostrutture S.r.l. for the year 2022 has been prepared in substantial compliance with **GRI Standards 2021**;
- the data and information included in the Report are consistent with the assessed documents.

We therefore believe that the Sustainability Report of Tecnostrutture S.r.l. for the year 2022 contains an adequate representation of impacts, strategies and sustainability performances of the company, with respect to GRI reporting principles and stakeholders' expectations.

Best regards.

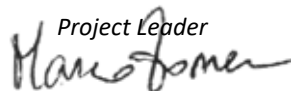
**Alessandro Ferracino**

Regional Director ECA Business Assurance  
(excl. UK and Iberia)



**Marco Zomer**

Project Leader



**Tecnostrutture s.r.l.**





**Tecnostрукture s.r.l.**

