



# Sustainability Report 2023



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# Letter from the management

Dear Stakeholders,

It is with great pleasure that I present our second Sustainability Report, which highlights our continued commitment to responsible and sustainable development. The year 2023 marked significant progress and the consolidation of our ESG journey, characterised by important milestones and new challenges that project us confidently towards the future.



Giuseppe Visentini  
Chief Executive Officer  
ThermoKey Spa

In 2023, we continued our financial growth, with turnover exceeding 60 million euros, confirming the resilience and effectiveness of our business strategy. This result stems from our ability to innovate and respond to the demands of a rapidly evolving market. We believe that our success needs to go hand in hand with a concrete commitment to responsible and sustainable practices, as we continue on our path towards energy efficiency.

Our vision of sustainability is increasingly intertwined with the company's core business. We are proud to have achieved several of the targets we set last year. Among the most significant milestones are the completion of the development process and the launch of production of the first applications featuring the “Multi System Dual Flow” technology — which allows us to offer more efficient solutions with a lower environmental impact — as well as the completion of the microchannel solution for ORC technology, opening up new frontiers in energy recovery.

On the environmental front, the installation of the photovoltaic plant and progress in our relamping project represent concrete steps towards improved energy efficiency. We also extended the scope of our emissions reporting to include, for the first time, Scope 3 emissions. This important step enabled us to gain a broader perspective on our environmental impact and to define targeted actions to reduce it. In this regard, we are committed to preparing an effective reduction plan for 2024, including measurable targets and a mechanism to progressively monitor its implementation. Alongside our environmental goals, which are fundamental to us, I am equally pleased to highlight that employee well-being remains a top priority. In 2023, we inaugurated our new canteen facility for employees, implemented new measures to improve workplace comfort, and launched initiatives such as the “W il lunedì” project, aimed at creating an increasingly stimulating and rewarding work environment. We have also reinforced our commitment to employee professional growth and development by continuing our workplace psychologist sessions. Looking ahead, we have set ourselves new and ambitious

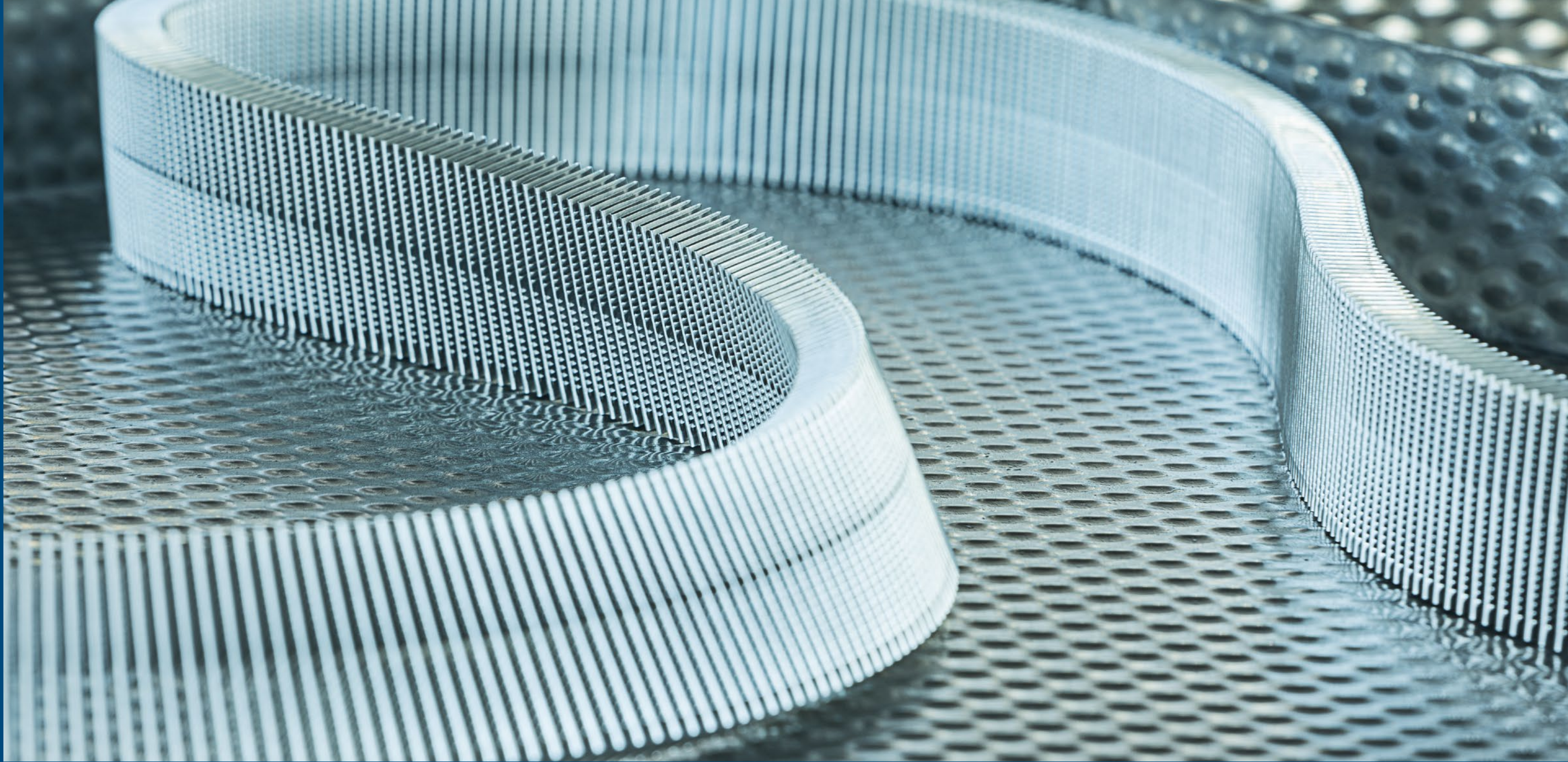
targets to be achieved in the coming years. These objectives include obtaining Gender Equality Certification and a Legality Rating by 2025, reflecting our ongoing commitment to ethical and inclusive governance. We are also working to further develop microchannel technology and to design new sustainable solutions, such as the “Modular Power Cooler”. Our ties with the local area have also grown stronger, as evidenced by our participation in the Fiera del Lavoro di Udine (Udine Job Fair) and collaboration initiatives with the local university. We firmly believe that our success is intrinsically linked to the well-being of the community in which we operate. Finally, I would like to extend my heartfelt thanks to all our employees, customers, suppliers, and partners for their essential contributions to this sustainable growth journey. Your support and trust are the driving force that constantly pushes us to improve.

With the publication of this Sustainability Report, we renew our commitment to sustainable development, fully aware that the road ahead will call for even greater determination and innovation. We are ready to rise to the challenge, inspired by our values and driven by a vision of a greener and more responsible future for all.

Enjoy reading.

**Giuseppe Visentini**





# The History and Identity of Thermokey

1



Established in 1991, ThermoKey has been producing various types of heat exchanger for more than 30 years. Currently, the company is recognised internationally as an ideal partner by refrigeration machine manufacturers in the air conditioning, refrigeration and process cooling sector.



ThermoKey has been active in the field of heat exchangers for air conditioning and refrigeration systems for over 30 years.

Our *mission* is to design, develop, manufacture and market cutting-edge heat exchange solutions for commercial and industrial use, tailored to the specific needs of our customers.

Over the years, we have fulfilled this mission by implementing a varied range of products and by developing cutting-edge technologies.

#### 1995

In this context of development and technical innovation, in 1995, ThermoKey became the first company in Italy to produce stainless steel heat exchangers using orbital TIG welding.

#### 2005

Growth continued in 2005 with the founding of ThermoKey Deutschland GmbH, our German subsidiary. In the same year, we opened branch offices in Poland and France, with the aim of responding to the needs of a market that is increasingly strategic and demanding in terms of performance and volumes, as well as to directly oversee our growing presence in new geographic areas.

#### 2010

In 2010, we became one of the first European companies to use a controlled atmosphere brazing furnace for the production of microchannel heat exchangers in the HVAC sector. We also developed an in-house thermodynamic calculation software, becoming the first in the world to manufacture aluminium

microchannel condenser up to 5.4 metres long — combining recyclability, lightness and cost-effectiveness. This innovation, together with our investment in cutting-edge machinery, has positioned us among the top players in the sector.

#### 2013

With the arrival of new investors and a refreshed governance structure in 2013, we launched a growth strategy focused on “green products”. Our operations — already aligned with sustainability goals — began to concentrate even more on delivering reliable products that also reduce energy consumption.

#### 2014

The following year saw the launch of the TK Micro 25, a microchannel condenser designed to offer high performance and reduced weight — a smart balance between efficiency and sustainability.

We have also introduced a new adiabatic Dry Cooler to the market, equipped with a hybrid cooling system (WFS – Wet Fin System) which, operating at low pressure (2–3 bar) and for an extremely high number of hours per year (up to 900), ensures full

operational flexibility, offering users the possibility to prioritise either water consumption or electricity consumption.

Thanks to our consolidated know-how in the production of microchannel cores, we have progressively ensured higher performance for our customers, both in terms of continuity and long-term reliability.

2016

In 2016, we developed the TKMicroH2O — a water-based microchannel core that is smaller, lighter, and more robust than traditional tube-and-fin core. We also introduced the Evaporative Panel System (EPS), expanding our portfolio of high-efficiency cooling technologies.

2018

2018 also proved to be another important year in our company's evolution. At Chillventa Nuremberg, we presented the Power-J (V-Tower), a series of dry coolers which can be fitted with the adiabatic system known as EPS (Evaporative Panel System).

These extraordinary results allowed us to expand our international sales force even further, by opening another new office in Chicago.

2020

In 2020, we developed the PowerGen radiator, followed in 2021 by the launch of the Cubic air cooler — both products combine ThermoKey expertise with market knowledge and technology. PowerGen is designed to meet specific needs in the market for electricity generation, while Cubic is geared towards the market for unit coolers, which must comply with rigorous standards of quality.

In recent years we have been working on ORC (Organic Rankine Cycle) technology, developing new solutions which are integrated with efficient, cost-effective microchannel units. ORC is an innovative and sustainable technology, enabling the recovery of waste heat from industrial processes by converting high

temperatures into electricity. We are proud to confirm that in 2023, we completed the development of a microchannel solution for this technology, in line with the objectives set in our first Sustainability Report.

2022

Another technology we have recently patented is the “Multi System Dual Flow”, which will be further detailed in the following chapters. This product represents a key innovation aligned with our goal of developing sustainable solutions. We introduced it at the Chillventa 2022 trade fair, where it received significant market interest. In 2023, our Multi System Dual Flow was also selected for the Innovation Gallery at C&R 2023, the prestigious International Exhibition of Air Conditioning and Refrigeration.

In 2022, we also launched the GasCooler, in response to the increasing demand within the refrigeration market for solutions that mitigate the greenhouse effect. The ThermoKey GasCooler range fully leverages the effectiveness of CO2, a low-GWP (Global Warming Potential) refrigerant. Moreover, the specific geometry used in the heat exchangers enables optimised solutions tailored to various design and performance needs.

2023

2023 was another eventful year, confirming the success of our products and strategies. We continued to invest in developing innovative refrigeration solutions and consolidating our presence on international markets.

In February 2023, we participated in the AHR Expo in Atlanta, where we showcased our product range. The event featured 1,900 exhibitors and drew 33,000 visitors, providing a key opportunity to strengthen our ties with the North American market. The data centre sector continues to experience exponential growth, with increasing focus on energy efficiency and water consumption. We received strong interest in our microchannel technology — an increasingly appreciated solution in the US market — as well as in our innovative energy-recovery products. Furthermore, our 3D-printed distributor, which will be discussed later in this report, garnered notable attention and could play a vital role in the development of heat pumps.

Another significant recognition in 2023 was the invitation extended to our Technical Director, Mr. Sandro Ortolano, to join the thematic working groups of the European Committee for Standardization (CEN) as an expert, focusing on standards related to the Pressure Equipment Directive (PED) 2014/68/EU. This committee brings together the standardisation bodies of 34 European countries and acts as a platform for developing harmonised standards. We are extremely proud of Mr. Ortolano's appointment and of the opportunity for ThermoKey to contribute to the development of ever more innovative and sustainable solutions at the European level.

In 2022, we also launched the GasCooler, in response to the increasing demand within the refrigeration market for solutions that mitigate the greenhouse effect. The ThermoKey GasCooler range fully leverages the effectiveness of CO2, a low-GWP (Global Warming Potential) refrigerant. Moreover, the specific geometry used in the heat exchangers enables optimised solutions tailored to various design and performance needs.

Also in 2023, we launched our new software platform TK Desk, specifically designed to simplify the calculation and configuration of microchannel coils for condensing and free cooling. This online configurator replaces our previous software used over the past 12 years and is freely accessible on our website.

In October 2023, we also took part in the SIFA fair in France, the most important French event for the refrigeration sector. The exhibition gathered over 130 exhibitors and more than 4,000 industry experts. Our sales team welcomed visitors to our stand, where we showcased our Cubic Unit Cooler for CO2 applications – made entirely from stainless steel – and engaged in discussions on sustainability and technical solutions for refrigeration.

2024

Our current range of heat exchangers includes finned cores, air coolers, liquid coolers, and air condensers, available with both round tube and aluminium microchannel technology.

All products are designed, developed and manufactured in-house, in collaboration with internationally recognised certification bodies.





# Defining our strategic Sustainability Plan

2

In our first Sustainability Report, published last year, we identified a number of key topics based on our materiality matrix, which we then mapped against selected Sustainable Development Goals (SDGs). These were chosen in line with our business sector and corporate identity.

This initial step allowed us to define tangible objectives while also reporting on the progress achieved in recent years. With this second Sustainability Report, we have taken a further step forward, moving beyond the previous framework towards a more structured approach.

In this new phase, alongside an assessment of the progress made on our earlier objectives, we are introducing a broader sustainability plan that links material topics and SDGs to a defined set of actions, with a clear timeframe for implementation.

The development of this plan, still in progress, reflects our growing awareness of the sustainability issues that are most relevant to our company. It also aims to fully integrate sustainability into the core of our activities.

With this in mind, we have identified new objectives and concrete actions to guide us in reducing emissions, managing resources responsibly, and promoting socially and ethically sound practices. Through this approach, we also aim to improve sustainability performance across our supply chain by encouraging partnerships based on shared values.

Below are two summary tables: the first outlines the main targets defined in the 2022 Sustainability Report and their current status (which is further detailed in the relevant chapters); the second presents the new targets to be achieved in the coming years.



Targets defined in 2022 and their current progress

| Material Topic                  | SDGs          | Environmental, social, governance | Target   | Progress  |
|---------------------------------|---------------|-----------------------------------|--|---|
| Sustainable Product Development | 12            | Environmental                     | Organising supplier audits   | First audit scheduled for February 2024 (see Chapter 7).  |
| Sustainable Product Development | 12            | Environmental                     | Starting production of micro-channel products using the new "Multi System Dual Flow" technology  | Development and testing completed. First applications sold (see Chapter 6).   |
| Sustainable Product Development | 12            | Environmental                     | Increasing the use of electronic fans to further reduce energy consumption;  | Orders with EC motors increased (see Chapter 6).  |
| Sustainable Product Development | 12            | Environmental                     | Further developing the microchannel solution for ORC technology;   | Development completed (see Chapter 6).  |
| Sustainable Product Development | 12            | Environmental                     | Facilitating the technology shift from round-tube to micro-channel in chiller units (helping to reduce refrigerant charge).            | Over the coming years, we plan to launch the commercialisation of heat exchangers manufactured using microchannel technology (see Chapter 6).                           |
| Reducing energy consumption     | 7<br>12<br>13 | Environmental                     | Concluding the relamping project to introduce LED lighting systems (replacing traditional lighting systems with LED lighting systems). | Ongoing. Completion expected by end of 2024 (see Paragraph 8.1).  |
| Reducing energy consumption     | 7<br>12<br>13 | Environmental                     | Extending emissions reporting to include Scope 3   | Objective achieved (see Paragraph 8.2).   |
| Waste management                | 7<br>12<br>13 | Environmental                     | Introducing compacting equipment for mixed packaging waste.  | We have introduced the use of a tool for compressing mixed packaging waste, reducing the number of waste collections by external transport providers (see section 8.3). |



| Material Topic                                | SDGs | Environmental, social, governance | Target  | Progress   |
|---|------|-----------------------------------|---|--|
| Wellbeing, health and safety of personnel     | 8    | Social                            | Launching a digital platform for employee welfare services  | Planned launch in June 2024 for national collective agreement vouchers (see Paragraph 9.3).  |
| Wellbeing, health and safety of personnel     | 8    | Social                            | Opening a company canteen to build staff morale while offering additional support to combat the rising cost of living;  | Canteen opened in 2023 (see Paragraph 9.3).  |
| Staff training and development                | 8    | Social                            | Further developing the MBO incentive scheme to include the welfare programme;   | We have undertaken new initiatives aimed at structuring the performance-related bonus more effectively and with greater incentives (see Paragraph 9.3.). |
| Staff training and development                | 8    | Social                            | Extending the involvement of the workplace psychologist, in connection with personnel growth and engagement.  | Objective achieved (see Paragraph 9.2).  |
| Supporting and developing the local community | 8    | Social                            | Participating in the Udine Job Fair organised each year by ALLg APS, the Association of Management Engineering Graduates founded by a group of management engineering graduates from the University of Udine; | Objective achieved in November 2023 (see Paragraph 10.1.).   |
| Supporting and developing the local community | 8    | Social                            | Creating and awarding two scholarships to launch a project to develop green tools and technologies  | During 2023, the necessary actions were taken to achieve this objective (see Paragraph 10.1.).   |

New targets identified in 2023

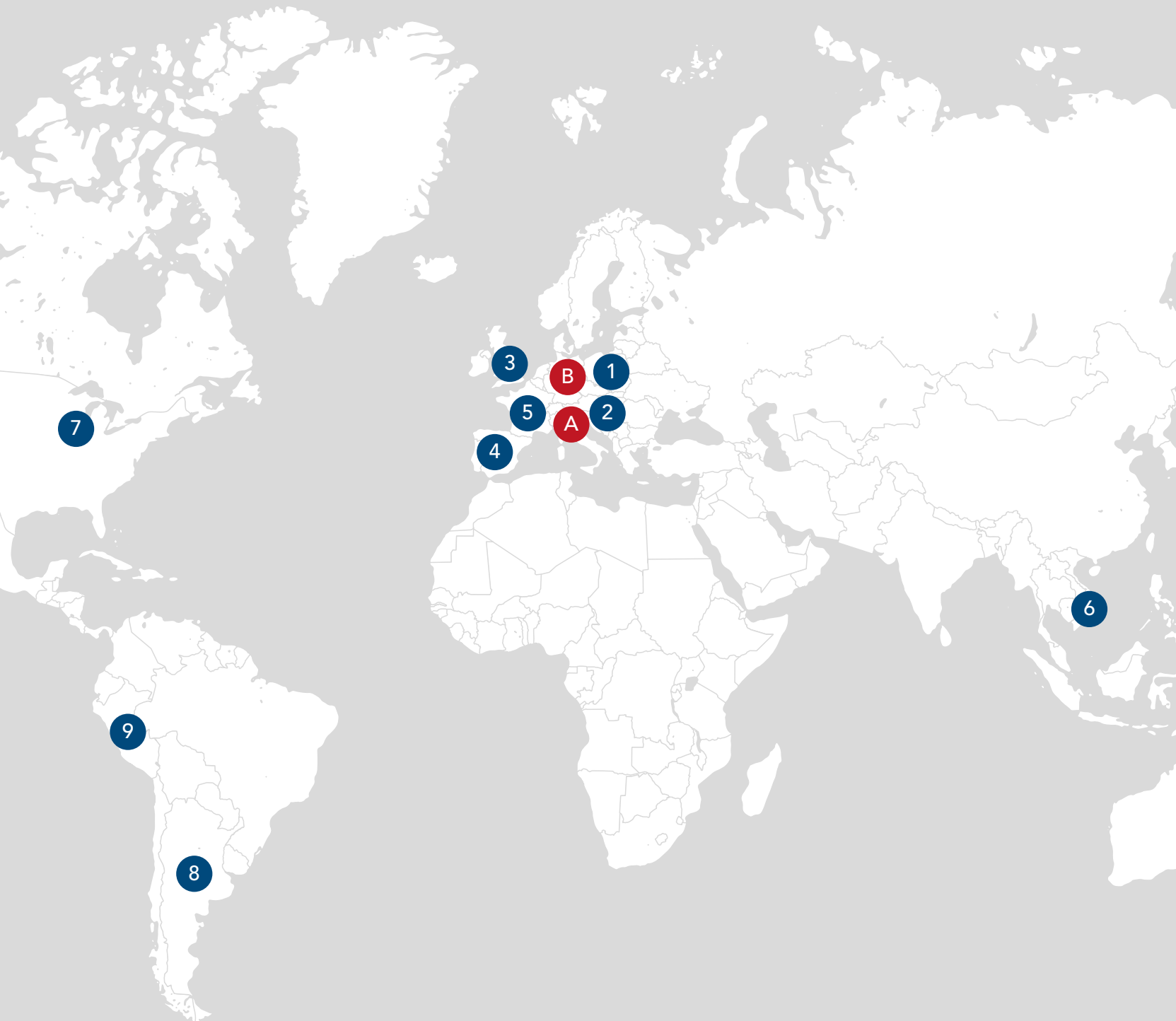
| Material Topic                        | SDGs   | Environmental, social, governance | Target  | Timeframe   |
|---------------------------------------|--------|-----------------------------------|---|-------------|
| Responsible Supply Chain              | 8 12 9 | Environmental                     | Distributing sustainability questionnaires to suppliers   | 2024        |
| Reducing emissions                    | 13     | Environmental                     | Defining a reduction plan for Scope 1, 2 and 3 emissions  | 2024        |
| Reducing emissions                    | 13     | Environmental                     | Carrying out a comparative assessment: copper round tube vs microchannel  | 2025        |
| Sustainable Product Development       | 12     | Environmental                     | Starting the production of microchannel products with the new "Modular power cooler" technology                           | 2025        |
| Sustainable Product Development       | 12     | Environmental                     | Implementing the application of 3D distributor technology across different refrigerants and various operating conditions. | 2024 - 2025 |
| Responsible Supply Chain              | 8 9    | Environmental Social              | Reducing raw material usage by:   | 2025        |
| Innovation and digital transformation | 12     |                                   | - implementing MES for data collection;<br>- reducing production scrap  |             |
| Staff training and development        | 8      | Social                            | Increasing overall staff training hours including ESG-related topics  | 2024        |
| Corporate Governance and Integrity    | 8      | Governance                        | Establishing an ESG committee or appointing a dedicated ESG manager   | 2024        |
| Corporate Governance and Integrity    | 8      | Governance                        | Applying for, and obtaining the Legality Rating   | 2025        |
| Diversity and inclusion               | 8      | Social Governance                 | Applying for, and obtaining the Gender equality certification   | 2025        |
| Corporate Governance and Integrity    |        |                                   |   |             |



# Our business activities

3





3.1 Group structure

ThermoKey S.p.A. – a single-shareholder company – is a manufacturing and commercial enterprise headquartered in Rivarotta di Rivignano Teor (UD), Italy. While our head office is based in Rivarotta di Rivignano Teor, we are an international organisation undergoing continuous expansion.

Our commercial organisation relies on a German company, ThermoKey Deutschland GmbH (controlled entirely by ThermoKey S.p.A.) which retails ThermoKey products for the German, Austrian and Swiss markets and manages a network of agencies and distributors across Europe, Asia and the Americas.

| Agencies and distributors |  |              |  |
|---------------------------|--|--------------|--|
| 1                         | Warsaw   | 7            | Chicago  |
| 2                         | Slovenia, Croatia, Serbia, Bosnia and Herzegovina, Montenegro, Kosovo, Bulgaria, Albania | 8            | Argentina  |
|                           |  | 9            | Peru   |
| 3                         | United Kingdom   | Headquarters |  |
| 4                         | Spain, Portugal  |              |  |
| 5                         | France   |              |  |
| 6                         | Vietnam  | A            | Main headquarter at Rivarotta di Rivignano Teor (UD) |
|                           |  | B            | Headquarter: ThermoKey Deutschland GmbH              |

### 3.2 Business sectors: our role within the production chain

Thanks to an extremely flexible production process and IT structure, as well as a team of engineers and salespeople focused on our customers’ specific needs, ThermoKey can offer high-performance products designed and built with very short turnaround times.

Our Company is a European leader in the production of high quality heat exchangers for commercial and industrial refrigeration, HVAC, energy and process cooling.

We offer catalogue products as well as custom-built heat exchangers, constructed according to customers’ specifica-

tions: dry coolers, high-efficiency air condensers, industrial unit coolers, finned stainless steel heat exchangers and aluminium microchannel condensers.

Our main areas of activity are indicated below.

FOCUS

*Thermokey as a partner in groundbreaking projects*

We are proud to announce that, through the supply of our cooling systems, we will contribute to the development of Refhyne, the largest PEM green hydrogen electrolyser in Europe. This project will play a strategic role in helping to meet the climate targets set out in the European Green Deal — specifically by decarbonising hard-to-abate sectors in industry and transport.

REFRIGERATION



In the refrigeration sector, we develop solutions for the entire cold chain — from production and processing to transportation, storage, and retail — of food products such as fruit, vegetables, meat, and fish. Our systems are used throughout the supply chain, from farming and harvesting through to large-scale retail and food stores.

PROCESS COOLING



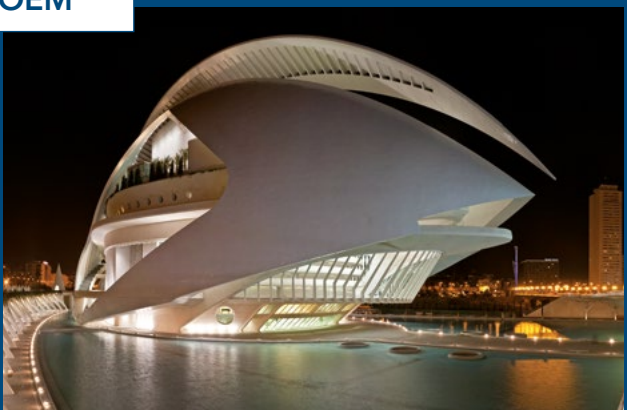
We also design and produce specialised solutions for process cooling, adapted to virtually any industrial environment — from generators operating in desert conditions to offshore platform compressor stations, from auxiliary gas turbine systems to the ladle cooling process in steel mills. This sector is referred to as Energy & Process Cooling.

AIR CONDITIONING



Our air conditioning segment provides solutions for a wide range of buildings, including hotels, banks, universities, hospitals, shopping centres, and theatres. We also supply components for the cooling of servers and large data centres, helping to maintain optimal levels of temperature, humidity, and air quality. ThermoKey is currently the only company in Europe producing ventilated units equipped with aluminium microchannel cores, offering a product that is lightweight, high-performance, and robust.

OEM

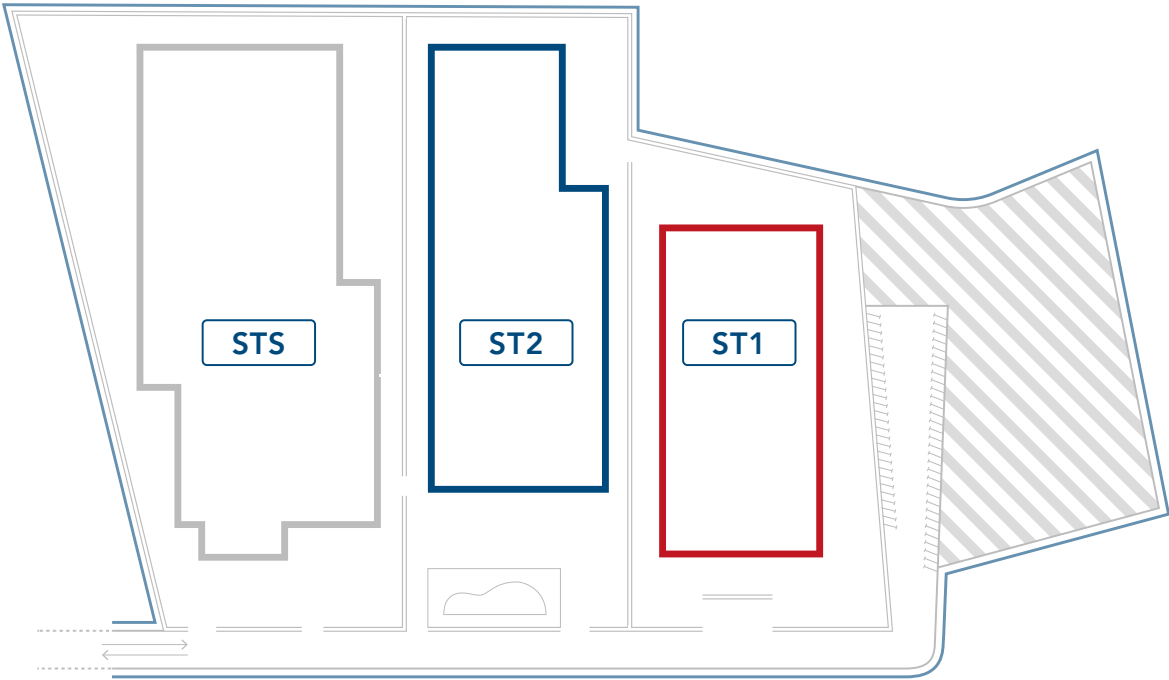


Thanks to our extensive technical expertise and long-standing experience, ThermoKey has been supplying heat exchangers to leading OEMs (Original Equipment Manufacturers) of chillers and special units since 1991. In addition to heat exchangers, we also provide dry coolers, condensers, and chiller units for OEMs.



### 3.3 Our production facilities

Our operations are spread across three adjacent industrial plants, covering a total surface area of 32,000 square metres on over 8 hectares of owned land, employing over 220 people.



The first plant (STS) is dedicated to the production of finned cores, finished cores (sold without ventilated units), and ventilated units for air conditioning and process cooling. This plant also houses maintenance activities and administrative and technical offices.

The second plant (ST2) handles micro-channel core assembly, thermal degreasing, brazing, connection fitting, performance testing, installation of casing components, and electrical wiring. Finally, the packaging of the products is carried out.

The third plant (ST1) is focused on manufacturing finned cores and ventilated units for refrigeration applications.

STS

This plant is home to the production units and the technical and administration offices -14,000 m²

ST2

This plant is where the microchannel products are made - 10,000 m²

ST1

This plant is where the cores and unit coolers are produced - 8,000 m²



### 3.4 Certifications and qualifying management systems

Corporate certifications represent an assurance of quality for stakeholders, which is why over the years we have gradually implemented a number of certifications in order to guarantee maximum efficiency and quality in our management systems.



#### ■ Quality management system

Product quality is a fundamental pillar of our company. It is embedded in our day-to-day operations and business philosophy. For this reason, we have applied for, and obtained uni en iso 9001:2015 certification.

#### ■ Environmental management system

Thermokey is committed to environmental protection and the continuous improvement of its environmental performance. To support this, we have implemented an iso 14001:2015 certified environmental management system based on specific objectives for improving environmental performance.

#### ■ Occupational health and safety management system

Our iso 45001 certification reflects our unwavering commitment to worker health and safety, and the prevention of occupational risks — core values within our corporate culture.

#### ■ TÜV SÜD certifications

Thermokey holds several TÜV SÜD certifications — an independent body for inspection, testing, certification, and training. Our certifications include:  
(I) certification for turbo-line condenser,  
(II) safety certification for units fitted with the adiabatic “air fresh system”,  
(III) certification for industrial unit coolers,  
(IV) certification of internal manufacturing controls and supervision of the final checks.

#### ■ Neridion certifications

The evaporative panel (eps), wet fin (wfs) typ jumbo (j) and super jumbo (sj) systems have all obtained vdi 2047-2 certification from neridion - a quality label which is widely recognised on the german market and is particularly sensitive to the issue of sanitisation of cooling technologies.

#### ■ UL certificate of conformity

UL conformity certification demonstrates that our products meet safety requirements for the canadian and us markets.

#### ■ Quality, environment, and occupational health and safety policy

As part of our policy commitments, we have defined the 'general guidelines of thermokey s.p.a.', a concise and programmatic document that summarises the main directives guiding our business activities and our path toward continuous improvement. The document sets out the following fundamental principles:

- Focusing on the health and safety of employees and contractors
- Fostering a high-performance culture
- Improving customer satisfaction
- Optimising costs and consumption
- Ensuring compliance with regulations
- Process monitoring aimed at organisational improvement
- Developing training plans to build role-specific competencies
- Maintaining budgeted revenue
- Considering the external context and stakeholder needs



### 3.5 Creation and distribution of economic value

For our company, creating value means adopting initiatives and behaviours that enable us to operate successfully in our target markets. Ultimately, our goal is to meet the expectations of our end customers

Value creation is driven by a strategic plan aimed at offering customers an innovative product range, high-quality service, and enhanced competitiveness compared to market leaders — also through the consolidation of our presence in international markets.

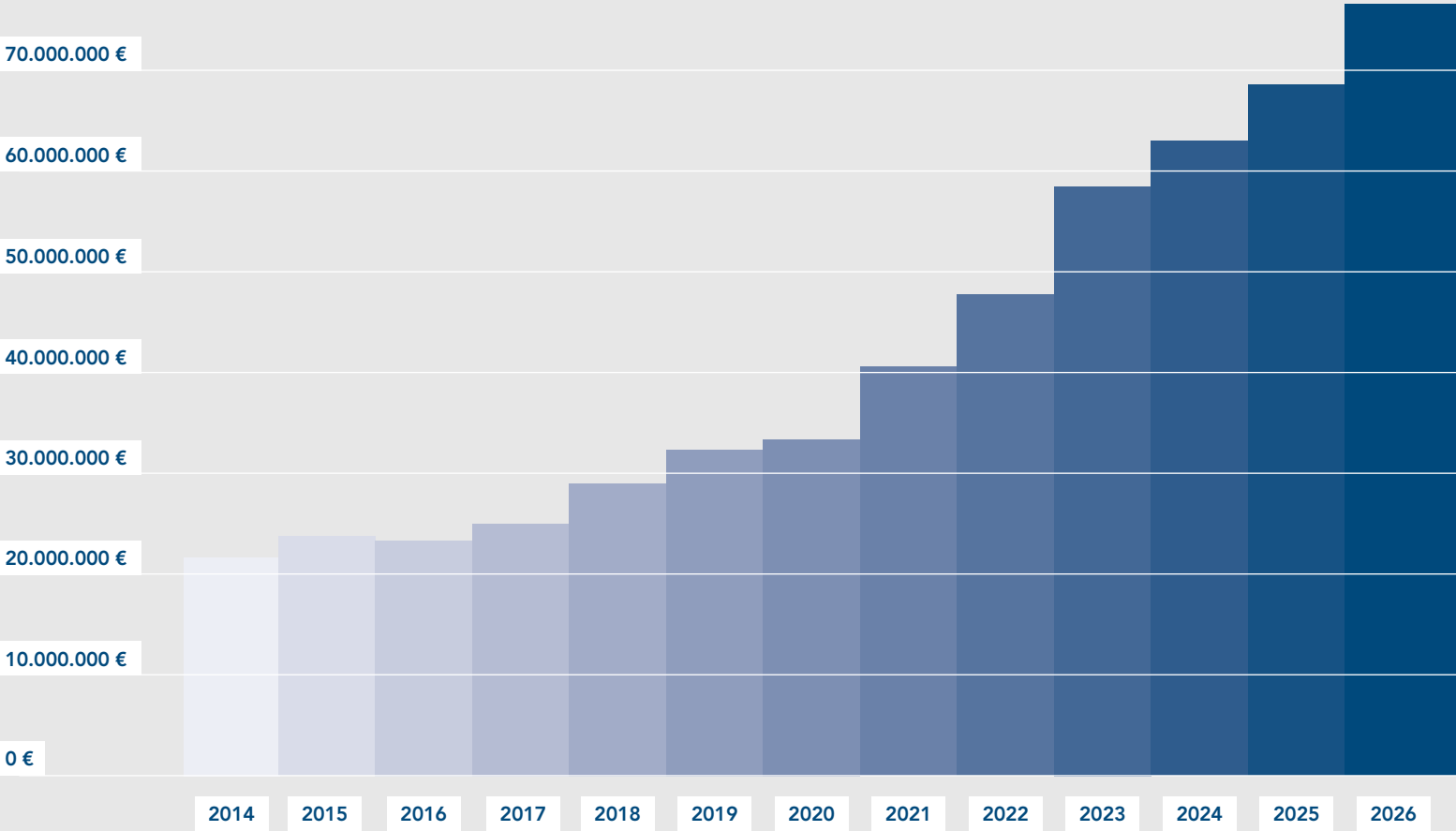
↓

Since 2014, we have been experiencing steady growth, as shown in the table below:

→

The following chart shows how the Global Value Added generated in 2023 — amounting to EUR 16,390,774.95 — was distributed among different internal and external stakeholders:

TURNOVER PLAN

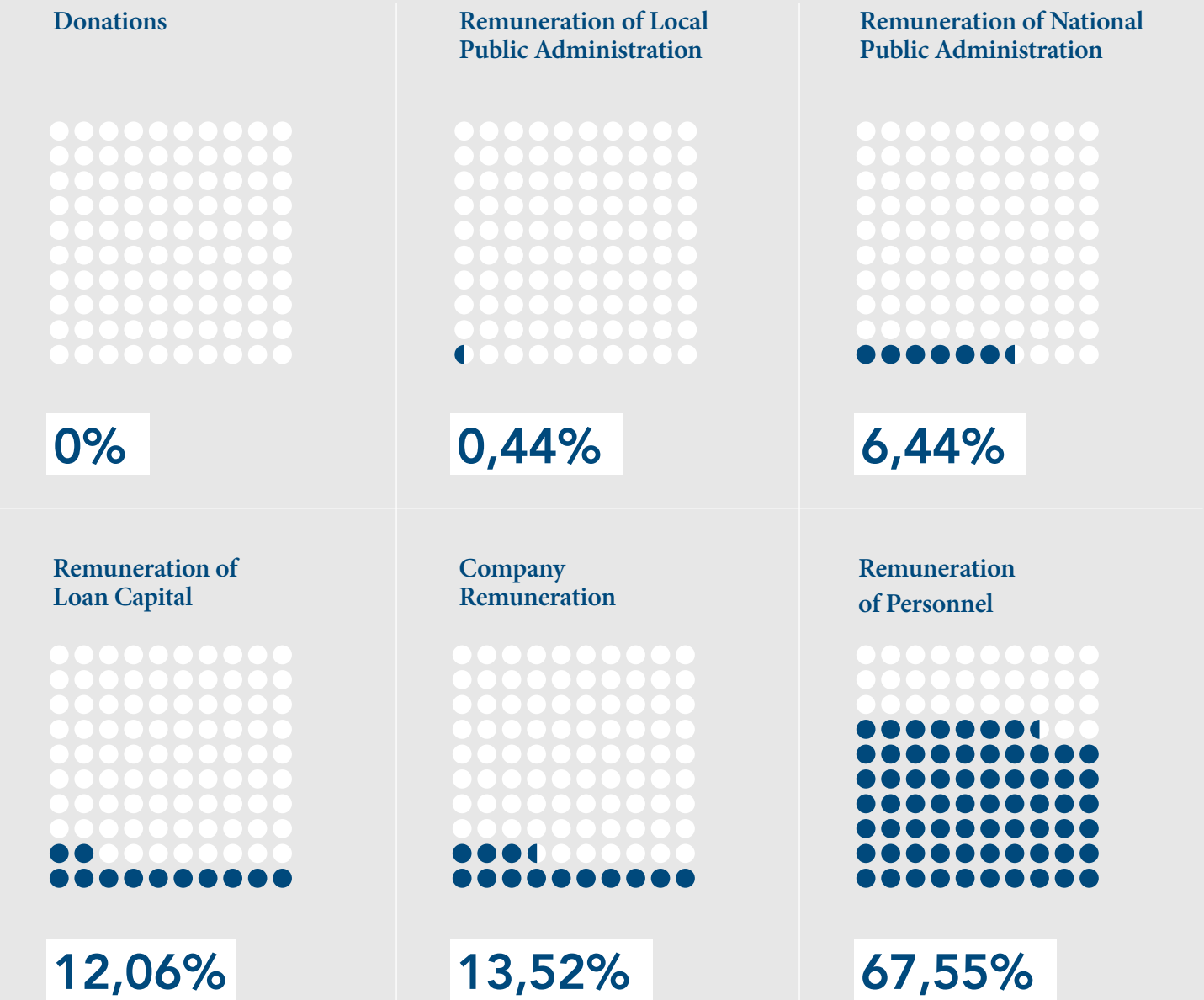


GLOBAL VALUE ADDED

16,4 MLN

In line with the figures reported in our first Sustainability Report, once again in 2023, the largest share of generated economic value was allocated to personnel.

DISTRIBUTION OF GLOBAL VALUE ADDED



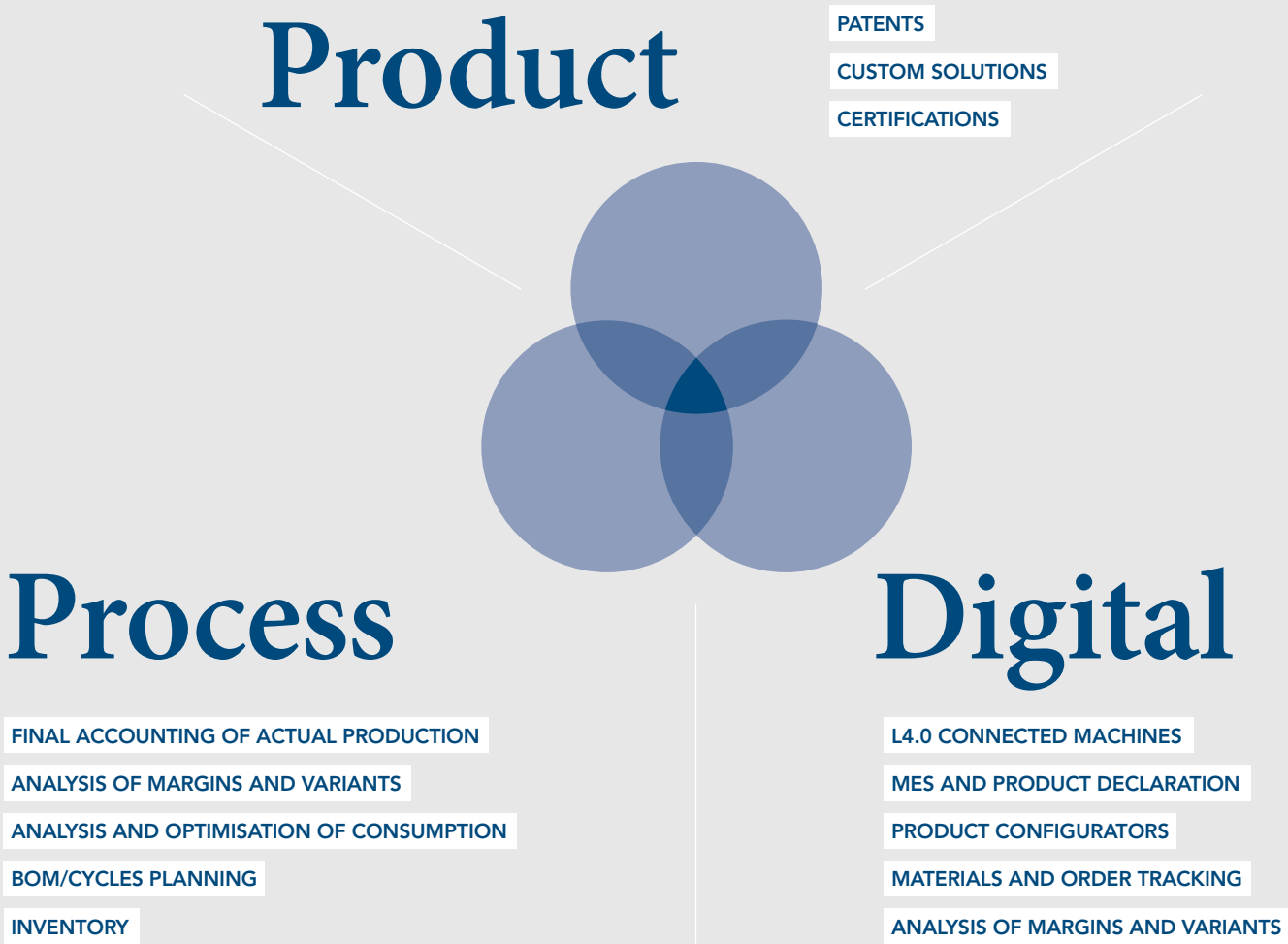
### 3.6 Innovation and digital transformation

We believe that promoting new technologies and digitalisation is an enabling factor for the sustainable management of our organisation. It brings with it key challenges — from process optimisation to waste reduction.

For this reason, in February 2022 we launched a series of projects to support our business, engage our people and lay the foundations for monitoring our energy consumption.

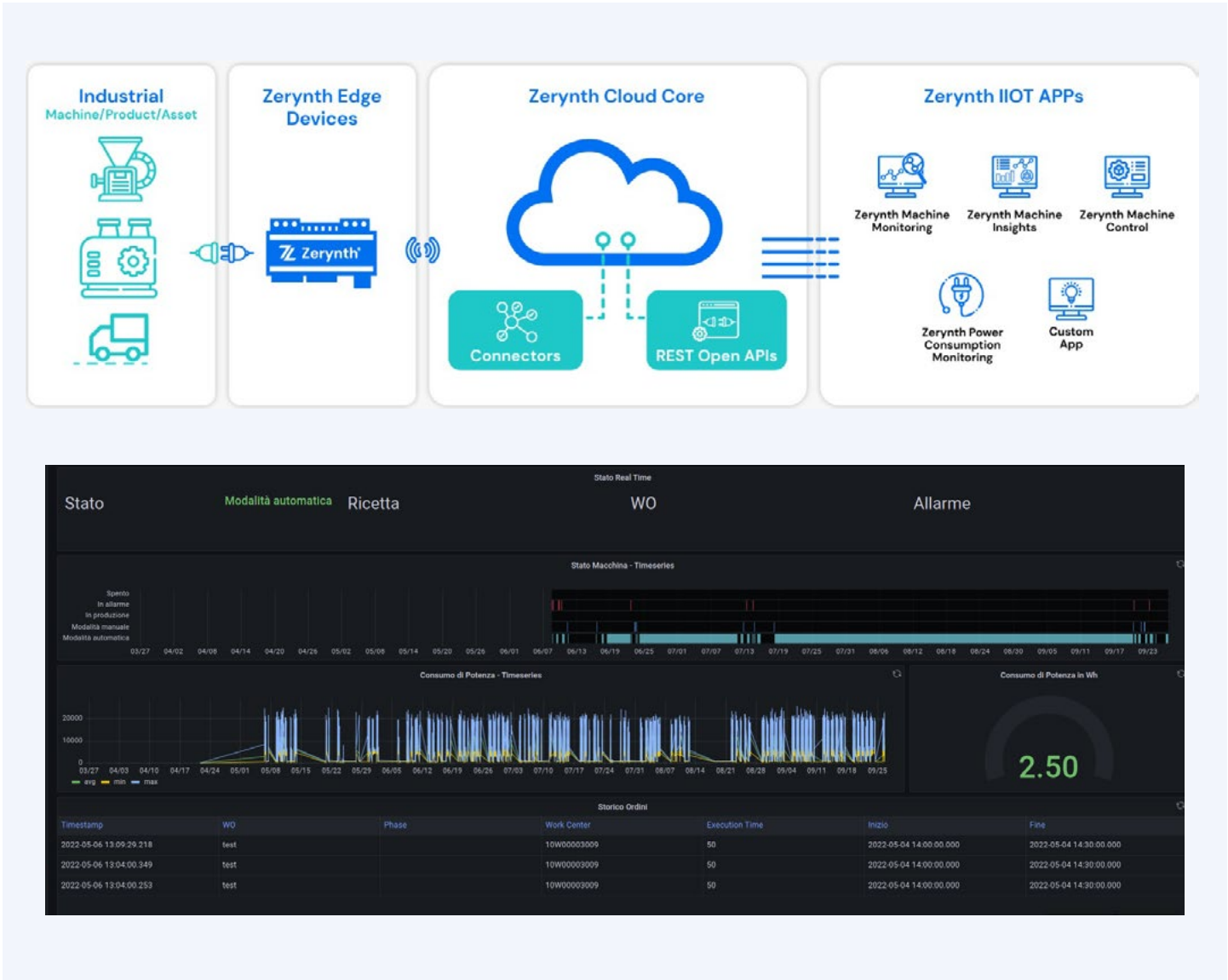
The schematic below shows the Company's innovation lines and the projects launched to support them:

3 DIRETTRICI DI INNOVAZIONE



We introduced an Industrial Internet of Things (IIoT) platform to connect sixteen production machines (including punch presses, expanders, welding stations, bending machines, a test tank, electrical test cabins, machining centres, and a manifold washing unit). This allows us to send the production batches directly from our ERP system and to receive data on real machine times, parts, non-conformities, and test certificates — all of which are stored in the company's document management system.

This IIOT solution has also allowed us to record the energy used by the machine fleet, with the goal of analysing and reducing it in the near future.





After consolidating and expanding this **horizontal integration**, we also began exploring **vertical integration within our supply chain**. The same IIOT technology has also been used to test the interconnection of some of our products and to monitor their use on customer premises.

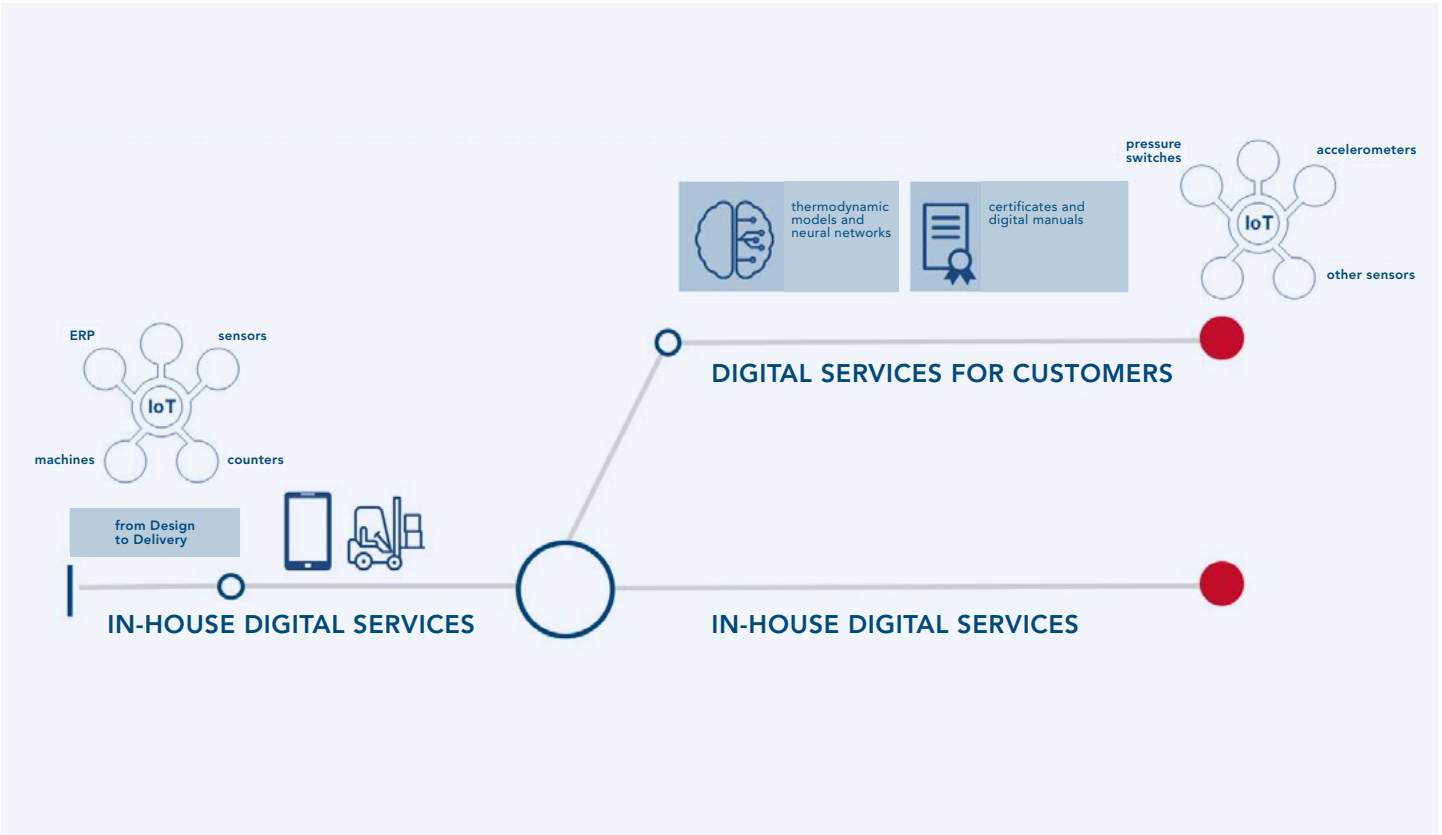
This integration of factory data is a step forward as part of a broader programme of evolution, which will see the design and upgrading of the entire process, from configuration of the product through to shipment to the customer.

Various **continuous improvement initiatives** are currently underway, involving **cross-functional teams**: these range from clustering and cleaning of all the technical product data to the rating of company performance in terms of punctuality, cost measurement, the introduction of a suite of controls to flag up irregularities and avoid transferring errors into the next stage of the process, from automatic checks on stock breakage through to the digital management of the production programme.

The objective is to understand, starting with a cross-functional, process-based approach, the issues involved in exchanging information and transferring data from the points of contact with our customers.

In line with these continuous improvement efforts, we are proud to report that in 2023 we launched several impactful projects and delivered on the commitments outlined in our first Sustainability Report. In particular, in early 2023, we launched the Digital Operations project, which includes the implementation of a Manufacturing Execution System (MES), a Warehouse Management System (WMS), and more generally, a full-scale digital transformation programme.

The Digital Operations project has two main aims: to monitor in real time the status of production, material consumption, rework, waste, and processing times; to support the production Department with a set of digital tools to speed up and streamline operations.



This is an ambitious and complex project led by the IT Manager, with the active involvement of Production, the Technical/R&D Office, and Management Control.

In addition to improving company performance, Digital Operations is expected to drive digital literacy across the workforce, allowing employees at all levels to acquire new digital skills and take full advantage of emerging technologies — even beyond their professional duties. This transversal know-how will help narrow the digital divide, promote social inclusion, and give everyone access to a wider range of resources and knowledge.

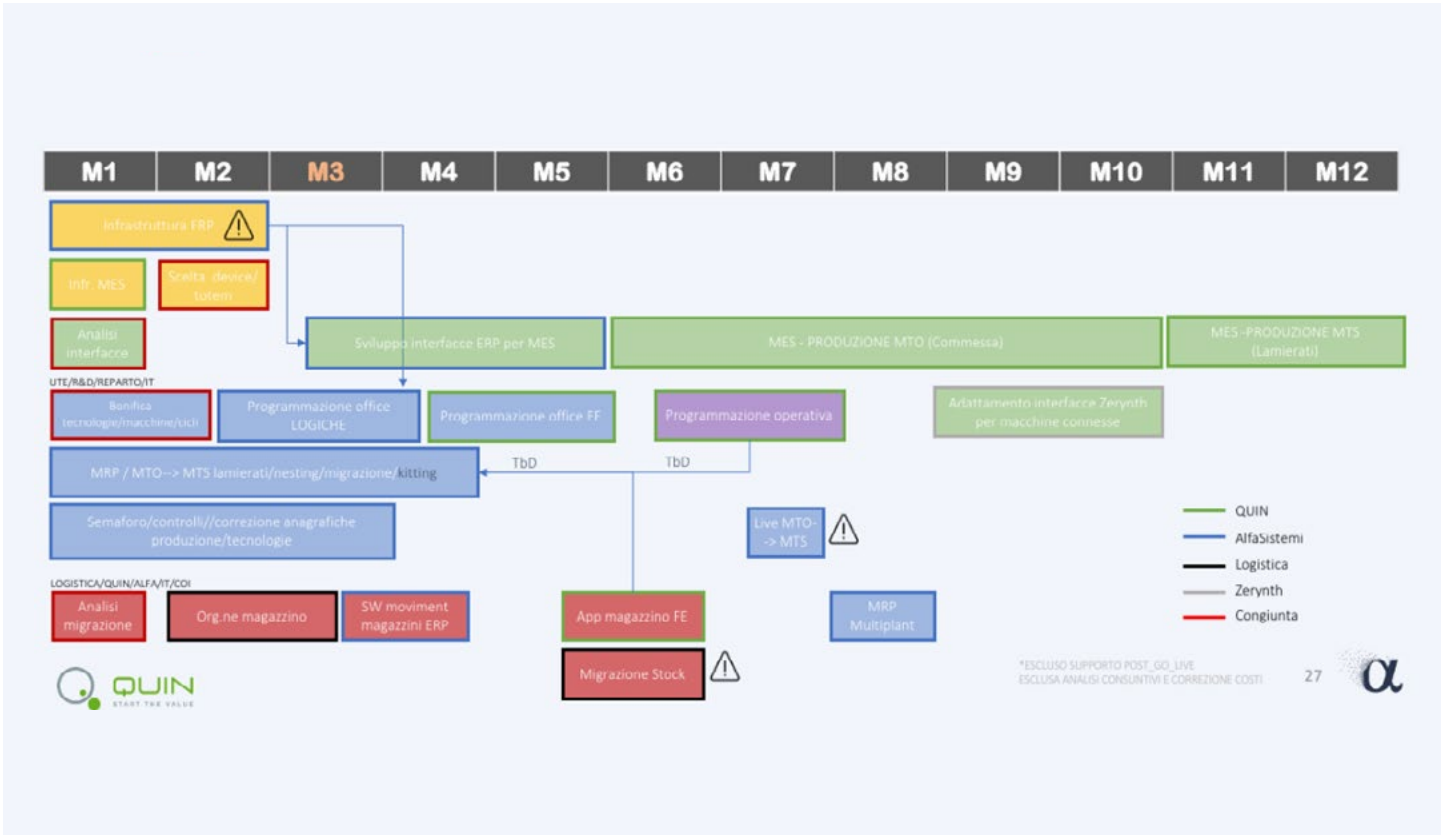
Building a digital factory process model that accurately maps the real flow of operations, lead times and material use ultimately aims to boost efficiency and reduce environmental impact. Using resources more wisely is a key lever for limiting energy waste.

The analysis phase for the MES project was completed in summer 2023, and we developed a Gantt chart outlining the high-level project plan, confirming the commitment of our organisation over a 12-month period.

The primary goal is to finalise a set of preparatory activities and to implement scheduling within the Planning Department.

This involves replacing paper-based production schedules with digital tools that are always up to date and can tell each production department what needs to be made and by when.

At the same time, we will implement a new internal warehouse management process that includes material tracking (e.g. using adhesive labels) and location mapping (e.g. indicating whether a metal sheet is stored in a specific rack or outdoor area). This will enable fast and reliable tracking of materials across our three production sites.



With regard to the next steps in the digitalisation of our production processes, we plan to implement a MES in the coming years, starting with the main production flow (from punching to assembly), and subsequently focusing on sheet metal processing.

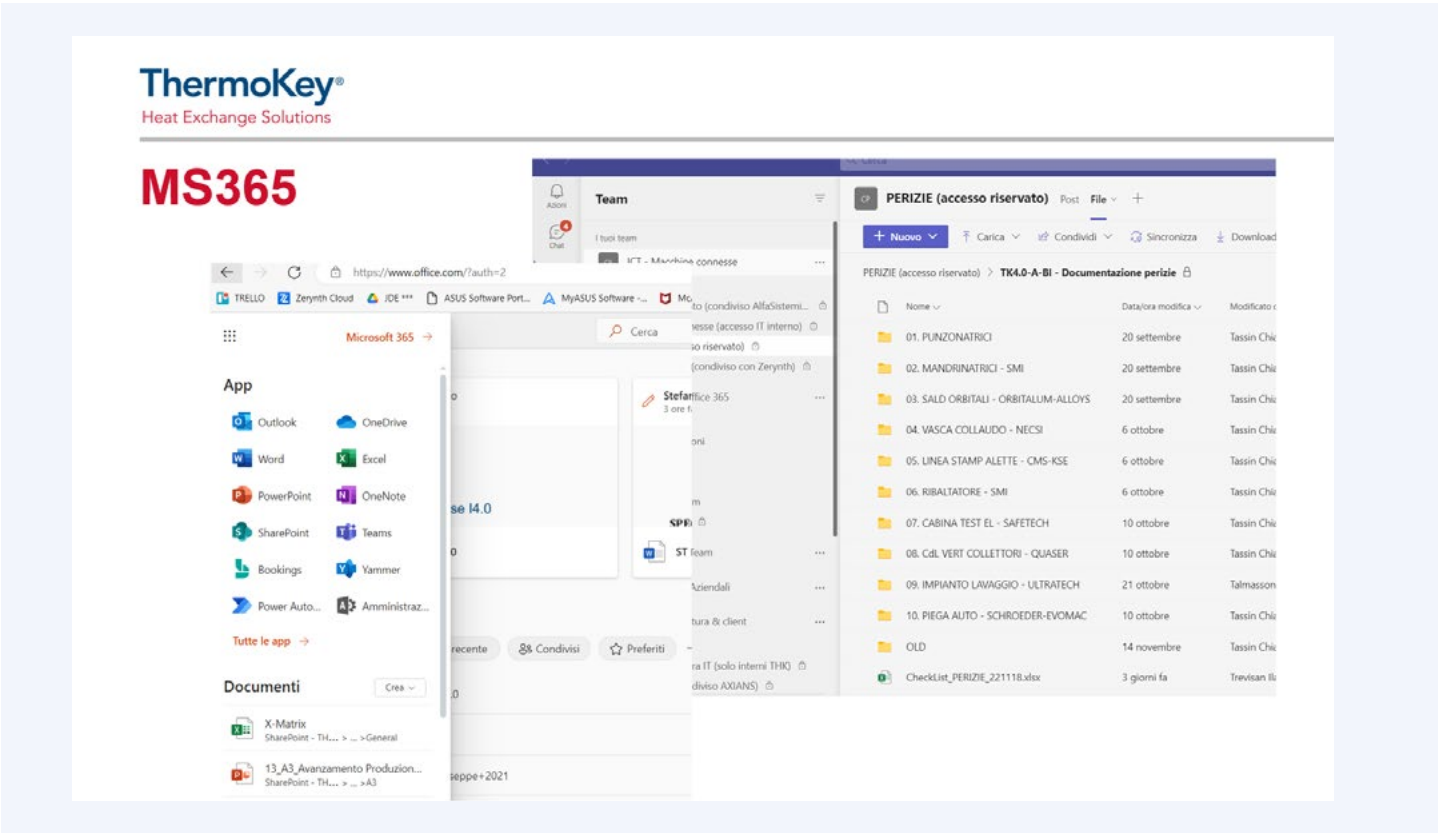
On the customer service side, we offer an advanced online selection portal powered by thermodynamic models developed with neural networks. The portal is managed by our Technical Department in collaboration with universities and digital partners.

Sustainability is a topic often confined to issues related to the amount of energy consumed by technological systems. There is perhaps less awareness of the **level of responsibility** that each individual has (whether they be end-users, tech experts or decision-makers), when it comes to using technology efficiently and sustainably.

It is not enough to work for a company that produces sustainable solutions to claim that one behaves sustainably: we must align all our actions with sustainability in all its dimensions — social, environmental, and economic.

An organisation can do much in terms of governance and policy, as well as train its people on sustainability issues. While it is true that Digital is a powerful enabling factor in this area, it is ultimately human beings and their behaviours that make sustainability real. That's why we believe that digitalisation projects should not be approached only from a technical or implementation standpoint — they must also include active onboarding of all relevant business functions, starting from the design phase.

The culture of sustainability also embraces our **day-to-day experience**. Taking those small but regular steps is a way of giving people a real awareness of the value and commitment they need to demonstrate in order to fully integrate the concept of sustainability — even digital services need to put the individual 'front and centre'.



When designing a solution, a core principle for the team is 'simplification': making sure that every aspect is managed by the digital solutions and that the user experience remains at the forefront. **Simplifying means** bringing in technologies that respond to the principles of usability and accessibility, which can make an important contribution when it comes to **inclusion**. For us, this means approaching the development of software by evaluating and promoting user needs. That's why, for example, the MES project is being developed in direct collaboration with factory operators, supported by internal and external digital experts.

In order to increase collaboration and employee engagement, we have also introduced the Microsoft Office 365 platform, which facilitates communication and information sharing — both in person and remotely.

We believe this approach is a strategic lever for retaining talent and increasing our attractiveness in the labour market.

What is needed is a different approach to digital, both in terms of how it is **designed** and how it is **implemented**. It should not start with technology, but rather consider the range of available technologies starting from the needs of the stakeholders. The biggest commitment must be to understand how technology can be helpful to humans, and not the other way around.

Digital sustainability is a process of cultural change, which needs to be disseminated across the organisation, starting with its people. It cannot be confined to a single department, but needs to become a core part of company culture to deliver the full benefits it promises. In order for this to happen, the IT area needs to act as a strategic partner to all other departments.





# Our approach to sustainability



One step at a time, we want our 32,500 m² indoor facility, which stands on a plot of 81,500 m², to become a more attractive, innovative and efficient space where staff can grow and feel at home, and where we design and build products to make our world more sustainable.

Our objective is to make the refrigeration and air conditioning sector more sustainable. This aim can be summarised in the five challenges listed below:

Using microchannel technology to combat the rising global temperatures caused by coolants with high gwp (global warming potential)

LESS COOLANT FLUID

-65%

‘Microchannel’ is the greenest technology in the refrigeration sector, as it allows the production of full-aluminium cores which are recyclable, use up to 65% less coolant and are compatible with eco-friendly refrigeration fluids (so-called zero-GWP refrigerants). Additionally, aluminium is a much lighter material than the copper ordinarily used in the refrigeration industry, and this significantly reduces the cost of transport. We are Europe’s top producers of cores and ventilated units with aluminium microchannel heat exchangers. During the Covid-19 pandemic, ThermoKey set up the TK Academy, addressed to customers. The very first education module was entitled “Intelligent cooling with microchannel technology”.

Process cooling solutions to reduce water wastage



Climate change and inefficient use of the available water supply are just some of the causes of the planet's shortage of water resources. In our own small way, we aim to combat water wastage by using closed-circuit process cooling solutions that will considerably reduce water consumption, in line with a more responsible use of water resources.

Quality refrigeration products to address the rise in population and product wastage



Thanks to the high quality of our refrigeration technologies, we ensure that product conservation meets the standards required by the food and pharmaceutical industries.

Improving quality of life



Our HVAC products can help to improve the end consumer’s quality of life, as they create environments characterised by efficient thermal comfort, while also ensuring optimal energy savings.

Growing consumption of energy by data centres

We offer optimal free cooling heat dissipation solutions to significantly reduce cooling energy costs. Our solutions are designed to address the four main challenges facing the sector:

|   |   |   |  |
|---|---|---|--|
| ENERGY EFFICIENCY   | BUSINESS CONTINUITY   | COMPLIANCE WITH REGULATIONS   | REDUCTION IN WEIGHT AND DIMENSIONS   |
| Our systems are designed to optimise the energy consumption of these complex infrastructures, considering that electricity costs typically account for around 40–60% of total cooling expenses. | We guarantee reliability and operational continuity — essential for many organisations and sectors. | We closely follow developments and european regulations on energy efficiency, offering solutions that comply with industry legislation. | Our products are designed to facilitate installation and minimise impact on existing structures. |



4.1 Identifying and engaging our stakeholders

The spirit behind the drafting of our first Sustainability Report was driven by the desire to present a detailed and meaningful analysis of our value creation process. We believe that this document is not merely a collection of data, but rather a useful tool to involve our stakeholders and share with them the principles that guide our business.

In preparing the structure and content of this sustainability report, we therefore took into account the interests and expectations of our stakeholders.

The following table identifies our stakeholders, their main expectations and the way we engage with them.

| Stakeholder            | Expectations  | Engagement   |
|------------------------|---|--|
| Employees              | <ul style="list-style-type: none"><li>Wellbeing, health and safety.</li></ul>   | <ul style="list-style-type: none"><li>Trade union representation</li><li>TK NEWS</li><li>Communication with managers</li></ul> |
| Suppliers              | <ul style="list-style-type: none"><li>Ethics and transparency</li></ul>   | <ul style="list-style-type: none"><li>Communication</li><li>Shared objectives</li></ul>  |
| Customers              | <ul style="list-style-type: none"><li>Responsible, transparent supply chain with a small environmental footprint</li><li>Innovative products</li></ul>                                | <ul style="list-style-type: none"><li>TK Academy</li><li>Direct communication</li><li>Periodic meetings</li></ul>              |
| Local communities      | <ul style="list-style-type: none"><li>Small environmental footprint</li><li>Jobs</li></ul>  | <ul style="list-style-type: none"><li>Debate with public institutions</li></ul>  |
| Financial institutions | <ul style="list-style-type: none"><li>Transparency and disclosure of the Company's growth plans.</li></ul>  | <ul style="list-style-type: none"><li>Direct debate</li><li>ESG report</li></ul>   |
| Shareholders           | <ul style="list-style-type: none"><li>Ensuring compliance with regulations</li><li>Ethics and integrity.</li><li>Developing a sustainable product</li><li>Staff well-being.</li></ul> | <ul style="list-style-type: none"><li>BoD</li><li>Periodic alignment meetings</li></ul>  |

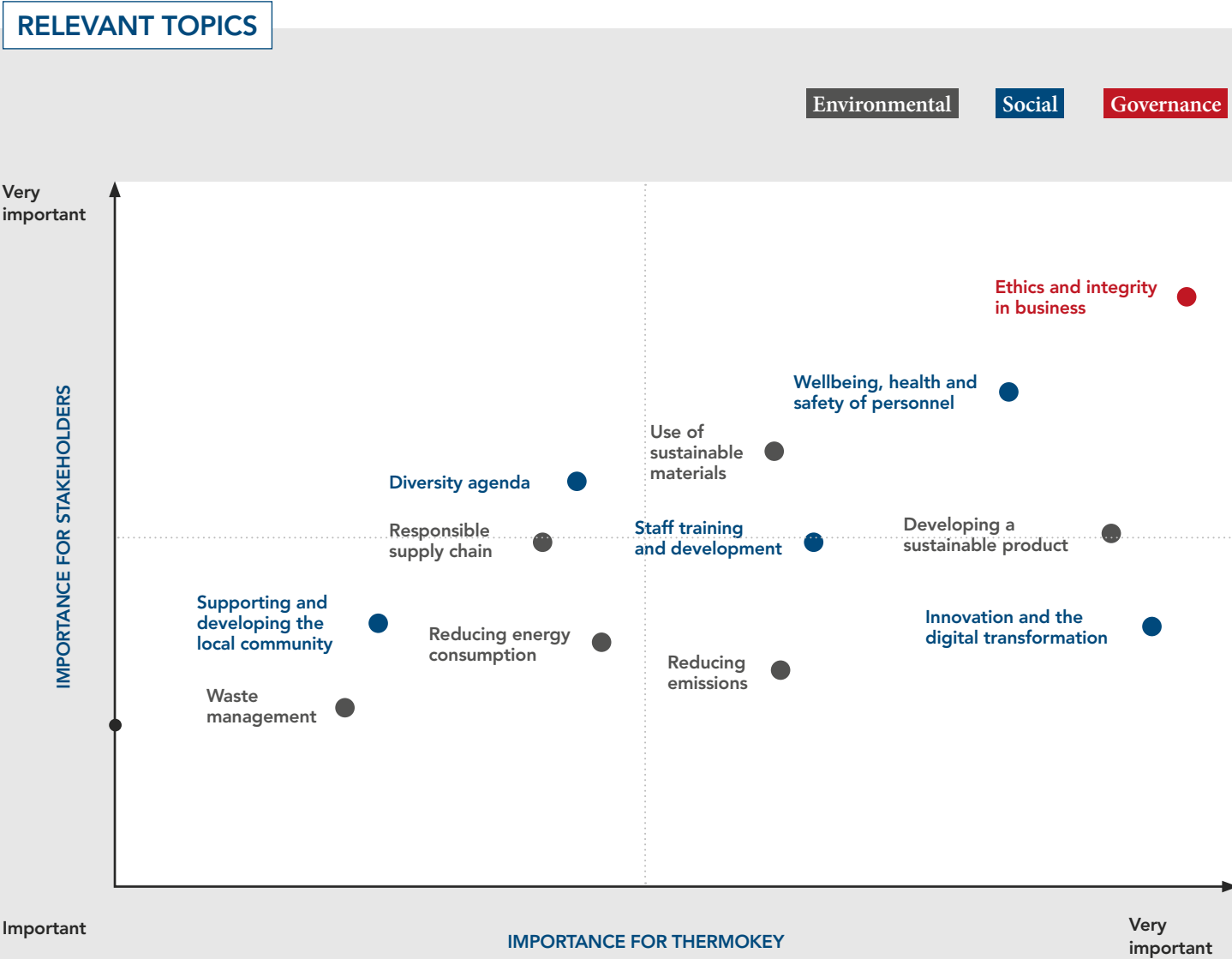
4.2 Our materiality matrix

The materiality analysis is one of the most important activities in preparing a sustainability report, as it identifies the key issues for our stakeholders and allows us to compare them with our Company's priorities and development strategy. The results of this comparison are used to define our growth targets and allow us to identify the possible areas for improvement in greater detail.

Our matrix is a faithful reproduction of the extensive preliminary analysis by which we identify the material topics which are relevant to our Company.

Based on that analysis, we then evaluated the topics identified by our internal and external stakeholders.

The outcome of this process is the identification of the following material topics:



The identification of key issues for our Company is the result of an assessment conducted by members of the in-house working group designated for that purpose: these results were then discussed with the CEO.

With regard to topics which are potentially important to our external stakeholders, the analysis was carried out internally, based on our perception of their priorities.

The x-axis represents the level of interest that our Company attributes to the 12 identified material issues, while the y-axis shows the level of importance that our external stakeholders attribute to the same issues.

The topics in the top-right quadrant of the graph are the issues which were ranked as extremely important, and which we will prioritise over the coming years.

A high level of importance was attributed both by the external stakeholders and by our Company to the topic of ethics and integrity, which is an important driver of the Company's

business. Issues such as the environmental sustainability of the supply chain and employee health and well-being also appear in the upper section of the chart — the area indicating high relevance for both parties.

This outcome highlights the strong commitment and interest in issues that have always represented the defining features of our business.

We consider it important to highlight that no changes have emerged regarding the selection of material topics previously identified in the first Sustainability Report. As a result, the materiality matrix for 2023 is consistent with the previous reporting year. This demonstrates a certain level of consistency in the identification of material topics and reflects the stability of our decision-making process with regard to sustainability priorities and stakeholder expectations.

HIGHLY IMPORTANT TOPICS

Worker's wellbeing and health



4.3 SDGs and material topics

ThermoKey has chosen to adopt the 2030 Agenda for Sustainable Development, which is a plan of action for people, the planet and prosperity. It was signed in September 2015 by the governments of the 193 UN Member Countries. The 2030 Agenda consists of 17 Sustainable Development Goals (SDGs) and 169 targets.

In recent years, we have fully understood just how important it is to guarantee the economic, social and environmental sustainability of our business. We have taken concrete action in order to align ourselves with the guidelines of all Sustainable Development Goals, so as to ensure long-term resilience to our business.

Specifically, we have identified 6 Goals (listed below), based on the specific characteristics of our Company, as we consider that ThermoKey will be able to achieve significant results in these areas.

We have also produced the following alignment table, which highlights how the material topics considered significant for our Company correspond to the SDGs we aim to achieve.

Each material topic is associated with a specific sustainability risk, precisely in order to demonstrate how our Company intends to pursue its long-term objectives while maintaining constant control over each issue.



Relation between Material Topics and Objectives of Sustainable Development

| Material Topic                            | SDG | Scope of impacts                             | Role of ThermoKey              | Sustainability Risks                         |
|---|-----|--|--------------------------------|--|
| Developing a sustainable product          | 12  | - ThermoKey<br>- Customers<br>- End consumer | Direct and caused by ThermoKey | Risks linked to innovation                   |
| Staff training and development            | 8   | - ThermoKey                                  | Direct and caused by ThermoKey | Risks linked to personnel                    |
| Wellbeing, health and safety of personnel | 8   | - ThermoKey                                  | Direct and caused by ThermoKey | Risks linked to personnel                    |
| Business Ethics and Integrity             | 8   | - ThermoKey<br>- Suppliers                   | Direct and caused by ThermoKey | Compliance risks linked to ethical behaviour |



| Material Topic                                | SDG  | Scope of impacts  | Role of ThermoKey   | Sustainability Risks                         |
|---|--|---|---|--|
| Responsible Supply Chain                      | <div><div>8</div><div>12</div><div>9</div></div>   | <div><div>- ThermoKey</div><div>- Suppliers</div></div>                           | Direct and caused by ThermoKey and Indirect and caused by suppliers | Risks in the supply chain                    |
| Innovation and the digital transformation     | <div><div>9</div></div>                            | <div><div>- ThermoKey</div><div>- Customers</div><div>- End customers</div></div> | Direct and caused by ThermoKey                                      | Risks linked to innovation                   |
| Supporting and developing the local community | <div><div>8</div></div>                            | <div><div>- Local community</div></div>   | Direct and caused by ThermoKey                                      | Compliance risks linked to ethical behaviour |
| Waste management                              | <div><div>12</div><div>15</div><div>13</div></div> | <div><div>- ThermoKey</div><div>- Local community</div></div>                     | Direct and caused by ThermoKey                                      | Risks linked to environmental regulation     |
| Reducing emissions                            | <div><div>13</div></div>                           | <div><div>- ThermoKey</div><div>- Energy providers</div></div>                    | Direct and caused by ThermoKey                                      | Risks linked to environmental regulation     |
| Reducing energy consumption                   | <div><div>7</div><div>13</div><div>12</div></div>  | <div><div>- ThermoKey</div></div>   | Direct and caused by ThermoKey                                      | Risks linked to environmental regulation     |
| Use of sustainable materials                  | <div><div>12</div><div>15</div><div>13</div></div> | <div><div>- ThermoKey</div><div>- Suppliers</div></div>                           | Direct and caused by ThermoKey                                      | Risks linked to environmental regulation     |
| Diversity agenda                              | <div><div>10</div></div>                           | <div><div>- ThermoKey</div></div>   | Direct and caused by ThermoKey                                      | Risks linked to personnel                    |

4.4 Risk factors and their management

Considering the complexity of our production activities, we deemed it essential to define a process for identifying and mapping the main risk factors, both to implement appropriate preventive actions and to outline effective management strategies for these risks.

Energy costs



Energy costs undoubtedly represent a risk factor that could compromise our competitiveness compared to European competitors. For this reason, we conduct a performance monitoring activity that allows us to identify specific actions to improve energy efficiency.

Supply chain and microprocessors



A second risk factor we have identified relates to the shortage of microprocessor suppliers, due to the increase in demand for sophisticated electronic components in various sectors of production. Moreover, the most important manufacturing plants for components that use microprocessors are primarily located in Germany, thus giving our German competitors an advantage in acquiring electronic components from domestic suppliers. To reduce this competitive edge, we have embarked on a process of qualification for our Italian suppliers so that we can obtain direct, immediate stocks in the same way as our European competitors.

## Economies of scale and competitors



We also undertook an in-depth analysis of our competitors, in order to understand the best path to follow so that we can grow, consolidate and improve on our results while maintaining financial equilibrium and stability. One risk factor that did emerge from the competitor review related to their larger size and greater capacity to implement economies of scale. The strategy we have chosen in order to mitigate the adverse effect of this finding has been to keep investing in the technological innovation of our production process — this will give us the ability to keep offering new products and to improve our competitiveness.

On the other hand, we believe innovation is at the heart of the competition: when you are the first to present something new, you can gain significant benefits in terms of appeal towards end customers and, at the same time, enhance your Company's image.

## Mitigation of environmental, social and governance impacts



Another important aspect is the adoption of a Code of Ethics, as an essential point of reference and benchmark for our business both overall and in terms of individual management decisions.

The Ethical Code defines the values of responsibility and the principles on which our Company's relationship with each category of stakeholders is based. It becomes a tool for ensuring the effective management of our business, as well as human relations, in respect of fairness and the good reputation of the company.

## Cyber Security



The issue of information security is highly critical. Global trends are seeing a constant increase in exposure to cyber risks. An assessment was scheduled for 2023/early 2024 to establish the degree of exposure to risk and define a structured remediation plan.

The information will then be analysed using a reference framework that takes into account the following areas:

**Confidentiality** – protecting information against potential unauthorised access;

**Integrity** – ensuring that all information is accurate, complete and protected against unauthorised changes;

**Availability** – ensuring that information is available when it is required for a company process;

**Compliance** – ensuring compliance with requirements arising from external regulations, contractual agreements, and internal policies and procedures.

Below is a list of the main remedial actions implemented during the past year.

In 2022, an external partner was entrusted with the management of the entire infrastructure in the ThermoKey server room, to ensure a higher level of business continuity. The services offered by this provider include:

- Monitoring all the critical components, including virtual servers;
- Managing the entire HW and SW infrastructure, including virtual servers;
- Managing cloud backup services;
- Taking measures to secure the backups against ransomware attacks;
- Managing the Active Directory infrastructure;

Another initiative has been the migration to Microsoft 365 Cloud (for email, documents, and collaboration), and this has required the configuration of a second on-site backup.

During 2023, a full overhaul of the network and Wi-Fi infrastructure was launched. This initiative involves replacing all obsolete or vulnerable equipment, and centralising control of the entire infrastructure in order to mitigate risks and optimise the internal costs of management.





# Business ethics and integrity: Our governance structure

5.1 The structure

Our traditional *governance* structure is designed to effectively support the responsible economic growth objectives we have set, not only in the short term but also in the long term.

Our organisational and management structure follows the traditional pyramidal model: at the top is the governing board (the Board of Directors), which has full powers of strategic guidance to enable the accurate, efficient management of the Company's activities.

The Board of Directors is granted the authority to carry out all acts deemed appropriate or useful to achieve the company's objectives, except those reserved by law for the Shareholders' Meeting. The Board of Directors, which does not include any board committees, currently consists of four members:

|                    |   |
|--------------------|---|
| BOARD OF DIRECTORS | Giuseppe Patriarca<br><i>Chairman</i>             |
|                    | Giorgio Visentini<br><i>Vice Chairman and CEO</i> |
|                    | Vincenzo Alberto Craici<br><i>Director</i>        |
|                    | Giuseppe Visentini<br><i>Managing Director</i>    |

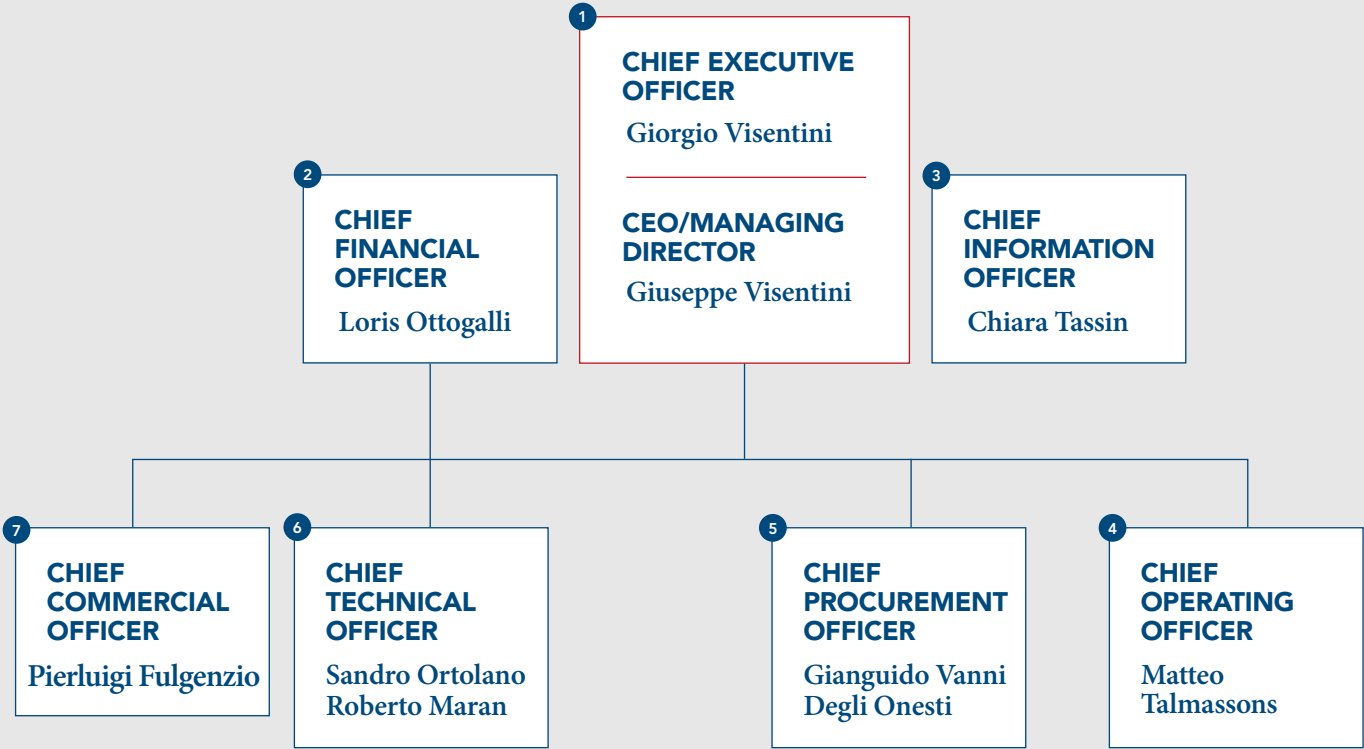
The positions of Chairman of the Board of Directors and CEO are held by different individuals, fully respecting the role separation policy aimed at ensuring a corporate structure that aligns with best practices.

Additionally, the governing body is composed predominantly of members from the local community (defined as the same geographic market in which the Company is based), demonstrating the benefits brought to our territory.

Our model of governance also includes a supervisory body: the Board of Statutory Auditors. Consisting of three standing auditors and two substitutes, its task is to oversee compliance with the law and the Articles of Association in accordance with the principles of sound administration, accounting and organisation as adopted by ThermoKey. The legal auditing of the Company's accounts is entrusted to an independent auditing firm.

5.2 Organisational chart

Our organisational and governance structure is illustrated in the organisational chart below (which only indicates the primary levels of management). This structure allows us to constantly monitor operational risks, while at the same time optimising the operational efficiency of our Company:



- 1 The **Chief Executive Officer** and **Managing Director** represent the highest level within the organisational chart, with responsibility for business results, corporate organisation, and overall governance. Thanks to their position and expertise, they have an overall view of the business and coordinate the other managerial figures listed below.

2 The **Chief Financial Officer** (CFO) is responsible for managing the company's financing sources. The activities associated with this role include monitoring cash flow, financial planning, seeking financiers and credit lines, as well as negotiating financing conditions. The CFO is responsible for maintaining the company's economic and financial balance.

3 The **Chief Information Officer** (CIO) has a decision-making role regarding the company's digital transformation strategies and IT services.
- 4 The **Chief Operating Officer** (COO) is responsible for managing operational processes. Specifically, he leads and optimises the Company's planning and operational activities. The objective of the COO is to make every business process effective in terms of competitiveness.

5 The **Chief Procurement Officer** (CPO) is responsible for procurement, drawing up the purchasing budget based on the Company's strategic needs and priorities.

6 The **Chief Technical Officer** (CTO) lead the technical teams and the technological strategy aimed at improving final products and developing new, innovative products.

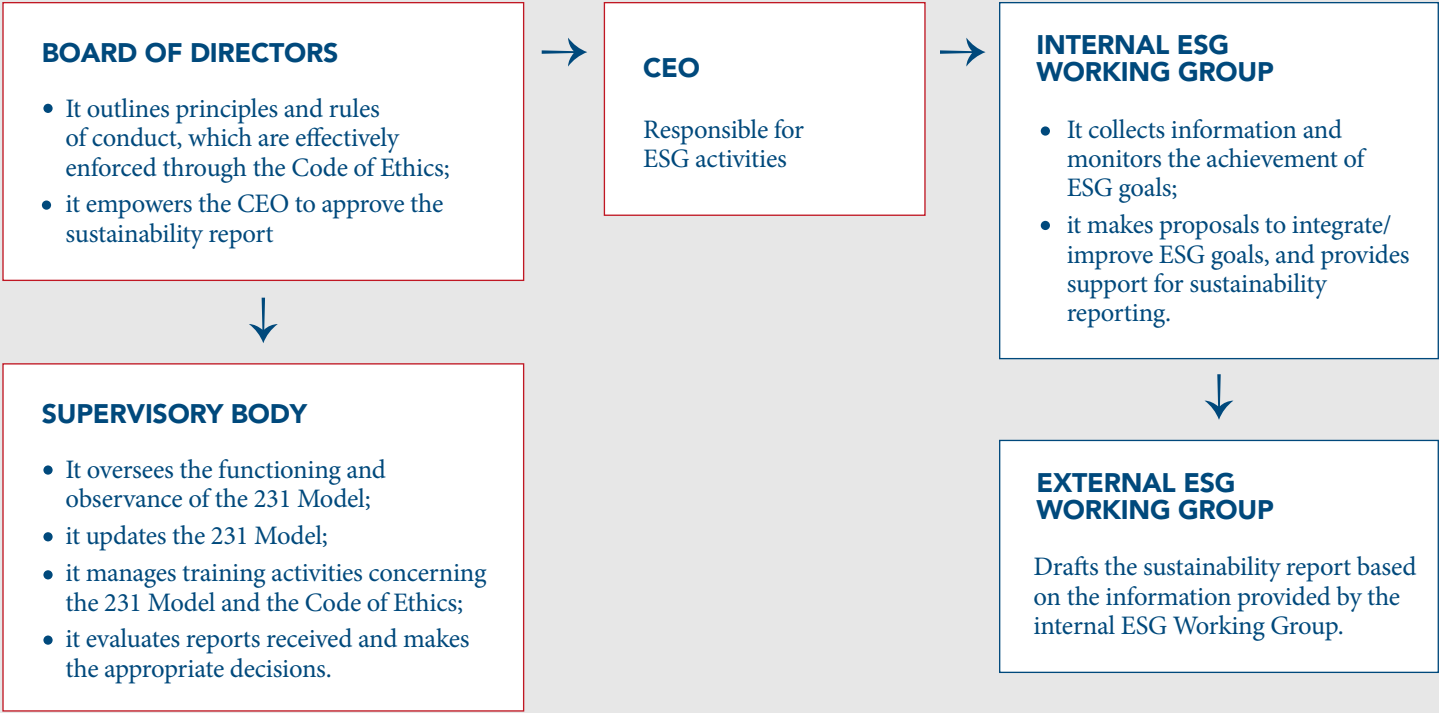
7 The **Chief Commercial Officer** (CCO) leads the Company's development activities and commercial strategies.



### 5.3 Management of material topics and impacts in the esg area

The responsibility for decisions related to environmental, social, and governance (ESG) issues is currently structured as follows:

Although sustainability topics have long been addressed within our organisation by a group composed of representatives from the main internal stakeholders (the ESG working group), our goal for 2024 is to formalise the creation of a dedicated committee within the organisational structure. This committee will be responsible for the sustainability strategy and tasked with promoting and monitoring the progress of our ESG objectives. It will oversee and plan the work of the internal working group, made up of representatives for each specific material topic.



### 5.4 Organisation, management and control model

The dissemination of the values and principles that we consider fundamental for managing our activities is further confirmed by the tools used to implement our internal control system and risk management, namely the Organisation, Management, and Control Model under Legislative Decree 231/2001, the Ethical Code, and the whistleblowing procedure for reporting unlawful conduct.

The Organisation, Management, and Control Model was adopted in accordance with Legislative Decree 231/2001 (and subsequent amendments), as well as in alignment with the guidelines set by Confindustria, case law, doctrinal development in the area, and principles that have long been embedded in our governance culture.

Although adoption of the Model is not obligatory, it is an effective way of raising the awareness of everyone who works for, and on behalf of ThermoKey and of all our other stakeholders – whether they be customers, suppliers, partners or other associates – that they must act fairly and with integrity in order to prevent the risk of any of the crimes targeted by Legislative Decree 231/2001.

A Supervisory Body has also been set up, and endowed with independent powers of initiative and control. Its task is to oversee the functioning and observance of the Model and ensure that it is kept updated. The Supervisory Body is a collective body, appointed by resolution of the Board of Directors. It has a three-year term of office, after which all or some of the members may be re-elected. Any member of the Supervisory Body may be dismissed by Board of Directors, but only for just cause.

The provisions of the Model are binding on the members of the Company's governing bodies and on all senior managers, employees (both shareholders and non-shareholders), associates and anyone else acting in any capacity on the Company's behalf.

The Chairman of the Board of Directors can make any non-material additions or formal changes to the Model, as necessary, as well as updates that may be required due to changes in the law.

Finally, our Company has adopted a specific whistleblowing procedure to assist its employees and anyone wishing to report wrongful acts or behaviours. The organisation, management and control model includes details of the whistleblowing procedure, which guarantees full anonymity for the whistleblower.

# 5.5 Our code of ethics and conduct

ThermoKey has a Code of Ethics and Behaviour, which is an expression of all the commitments the Company makes towards everyone we come into contact with in pursuit of our corporate aims (customers, suppliers, employees and/or associates, shareholders and institutions). The Code sets out the values and principles of behaviour that guide the Company’s decision-making processes, and is the primary tool used in preventing any form of illegal conduct.

Our Code of Ethics is binding on our shareholders, the members of corporate bodies, employees (both shareholders and non-shareholders) including managers, and anyone else internal or external to the organisation who may have permanent, temporary, direct or indirect relations with ThermoKey. Under no circumstances may the pretence of acting in the interests of our Company justify acting in a way that conflicts with the principles set out in this document.

## Integrity

The history, identity and values of ThermoKey are based on a set of business ethics inspired by reliability, solidity, integrity in contractual matters, and respect for the competition.

## Loyalty

This is a value that we strive to live by every day, both towards our stakeholders and our competitors. In particular, we recognise the value of loyal and fair competition, in the belief that this is a fundamental part of our reputation.

## Objectivity

We work hard to ensure that all internal relations and those with our stakeholders are managed with impartiality, and are also free from any prejudice or personal bias.

## Honesty

This is a core principle of our business organisation. Relations with stakeholders, on every level, must be based on honesty. Under no circumstances may the pursuit of the Company’s interests justify any form of dishonest behaviour.

## Transparency

In application of this principle, we ensure that all stakeholders receive accurate information about the significant events of company management. In conducting our business, we strictly adhere to all laws, rules and regulations.

## Individual Respect

We guarantee an inclusive working environment, where unique qualities and diversity are appreciated. In our dealings with people and businesses, we reject any form of discrimination, in particular on the basis of age, sex, sexuality, state of health, race, nationality, political opinions or religious beliefs.

## Fairness

Fairness is an essential requirement when it comes to reaching our financial, production and social objectives.

## Equity

In the management of hierarchical relations, the Company exercises its authority fairly and with integrity, avoiding any form of abuse and always with respect for justice in the common sense of the word.

## Responsibility

and careful use of corporate, environmental and social assets and property

Every employee is required to adhere to the highest standards of professionalism in their role, to ensure that the needs of customers and colleagues alike are always met.



The Code of Ethics is transmitted or brought to the attention of all interested parties, both inside and outside the Company.

It is posted on the company intranet, distributed to directors, all staff (shareholders or not), and to any other third party who may have contractual dealings with the Company.

This means that all directors, all staff (shareholders or not), associates, or anyone else acting on our Company’s behalf, is required to be familiar with the rules outlined in the Ethical Code.

Furthermore, the corporate bodies, fully aware of their responsibilities, are required not only to comply with the law, applicable regulations, the Articles of Association, and internal company rules, but also to adhere to the following principles set out in the Ethical Code:

- Behave in accordance with the principles of autonomy, independence and fairness towards public institutions, private individuals, economic associations and political powers, and with any other person both nationally and internationally;
- Act with integrity, loyalty and a sense of responsibility;
- Ensure their regular, informed participation at the meetings and activities of the corporate bodies;
- Assess situations of conflict of interest or incompatibility of roles, duties, or positions both inside and outside the Company, refraining from taking action in situations of conflict of interest in the course of their duties;

- Treat as confidential any information they may receive in connection with their role, and avoid using their position to obtain any direct or indirect personal advantage;
- Comply with any request for information made by the Board of Statutory Auditors in relation to the applicability of specific rules to the Company;
- Present only true, complete, unaltered documents at shareholders’ meetings, in relation to a specific agenda;
- Refrain from buying or subscribing to shares or reserves which cannot, by law, be distributed.
- Refrain from carrying out share capital reductions, mergers with other companies, or demergers that could cause harm to creditors.

Where there is a verified breach of the Code of Ethics – observance of which is an essential part of the contractual obligations accepted by employees, associates or anyone else working on behalf of ThermoKey – disciplinary measures will be taken to protect the Company’s interests, compatibly with applicable laws. This may also lead to termination of contract and compensation for damages.

During 2023, no cases of corruption and/or breach of the Code of Ethics were reported.



5.6 Legal and regulatory compliance

During the 2023 financial year there were no significant cases of non-compliance with laws and regulations.

NON-COMPLIANCES CASES REPORTED WITH LAWS AND REGULATIONS



The Company has operated in accordance with all provisions of law in previous years, and has not committed any significant breaches or irregularities.



5.7 Our future commitments: the path to preparing for the legality rating and gender equality certification

As part of our journey towards sustainability, business ethics, and inclusion, we aimed to take further concrete actions in 2024 to ensure compliance with regulations and promote gender equality within the organisation.

In particular, we are committed to analysing the time and resources required to obtain the Legality Rating issued by the Italian Competition Authority (AGCM). We set ourselves the goal of applying for the Rating in 2025. The Legality Rating will be essential to evaluate and improve our compliance with the principles of legality, transparency, and fairness in our business practices.

At the same time, we will work on selecting a certification body to achieve the Gender Equality Certification by 2025, demonstrating our commitment to creating a fair and inclusive work environment where gender differences are valued and respected.

These efforts are a crucial step in our mission to promote a corporate culture based on the values of sustainability and integrity, thereby contributing to the well-being of our stakeholders and the sustainable growth of our business.





# Thermokey and sustainable product development



We continue to strive for excellence and innovation, guided by our mission to make the world of refrigeration and process cooling more sustainable. We wish to thank all the associates and partners who have made this important achievement possible.

As highlighted in the materiality matrix above, “Sustainable Product Development” represents one of the most relevant material topics for our company.

Our company is constantly engaged in the development and promotion of products that meet the needs of our customers, without compromising the well-being of future generations.

Indeed, the research activities we conduct are not limited to improving product quality but aim to enhance efficiency and environmental performance.

This approach allows us to identify areas for improvement and adopt innovative solutions to reduce environmental impact, contributing to a more sustainable future.

The development and production of green products are directly linked to the use of raw materials that are compatible with environmental sustainability objectives.

Based on the goals outlined in our first sustainability report, we can proudly state that:

We have started selling products with the Multi System Dual Flow technology

The “Multi System Dual Flow” technology contributes to the fight against global warming. Nowadays, in Europe alone, approximately 2,860 TWh of heat are released into the atmosphere every year — an amount nearly equivalent to the energy required for space heating and domestic hot water within the same area. Our innovative technology represents a revolution in heat recovery and offers a valid alternative to traditional adiabatic systems. By using two circuits in micro-channel condensers (MCHX) and an additional refrigerant fluid, it helps lower the inlet air temperature and recover part of

the heat that would otherwise be released entirely into the atmosphere.

This technology recovers the condensation heat from the ventilated units, enhancing the performance of the heat exchangers: up to 50% higher efficiency, up to 32% reduction in size, and up to 10 dB(A) less fan noise. Essentially, the machines become more compact and silent while simultaneously providing free heat that can be used in multiple applications.

Our condensers designed with Multi System Dual Flow technology essentially allow for reduction in emissions released into the atmosphere compared to traditional systems. In short, Multi System Dual Flow is an excellent example of how a simple and intuitive solution can have a significant and versatile impact, addressing energy, environmental, and social challenges. Its implementation should not only be seen as a smart choice for companies and institutions, but also as a goal for public policies aimed at promoting sustainability and energy efficiency.

The Multi System Dual Flow is currently supported by a structured intellectual property rights portfolio and is pending worldwide patent.

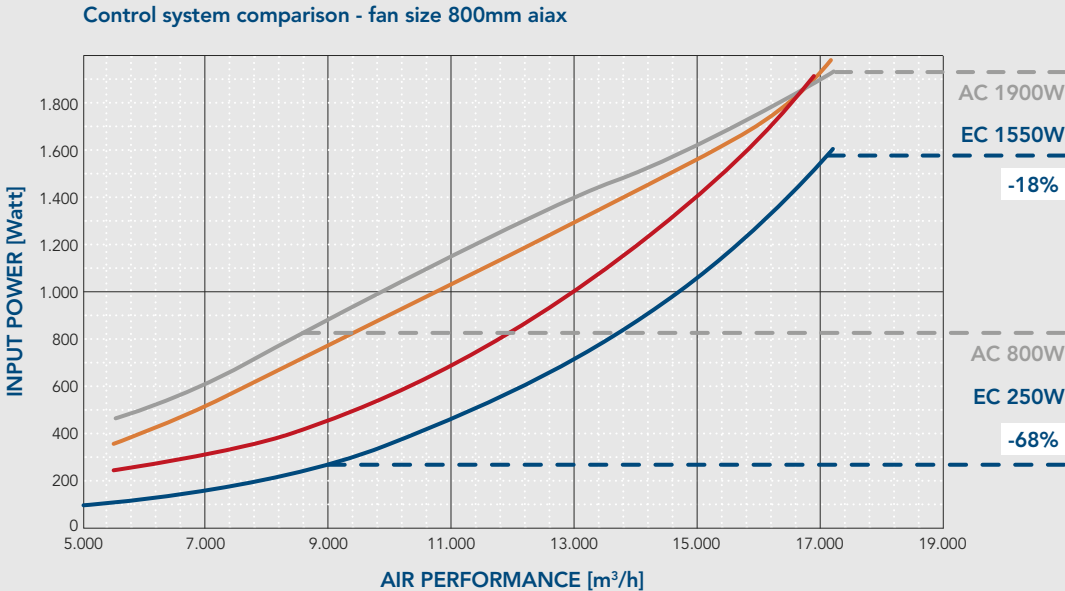
In 2023, after completing development and application testing, we launched the sale of the first applications (in particular, for evaporator defrosting), and we have already sold units using this technology. In the coming years, we plan to increase the use of this technology by focusing in particular on two specific areas.

The first, aimed at increasing demand, involves developing the dynamic thermofluidic software in order to extend the applicability of the technology. This project requires investment in both instrumental resources (specifically, calculation software) and human resources (in particular, we intend to involve university students from the University of Udine, thereby maintaining the direct relationship with the academic hub that has always been a distinctive feature of our organisation).

The second area of development concerns the industrialisation of the production process, which will later be scaled up to match future demand growth.

EC TECHNOLOGY

EC motor - premium efficiency



Fonte: ebm-papst

## We have increased the use of electronic fans to further reduce energy consumption

Over the years, we have encouraged the use of EC Fans, which, through the use of Synchronous (Brushless) Motors, are able to reduce energy consumption compared to AC Fans, which use Asynchronous AC Motors (Induction Motor) instead. The impacts on energy consumption of AC motors compared to EC motors are illustrated below:

In line with the goal of developing products that contribute to reducing energy consumption, we have progressively increased the use of EC Fans, which in our machines rose from 18% in 2015 to 47% in 2022.

The increase in orders for units with EC fans undoubtedly stems from the update of our Archimede software, a tool available to customers that automatically generates the technical data sheet of the selected air-cooled units. The Application Department and the Software House are responsible for keeping the software constantly up to date and, with this in mind, electronic motors compliant with the ERP Directive have been integrated. These motors consume approximately 15% less

energy than traditional asynchronous motors, allowing each customer, when selecting them, to obtain specific information and an energy analysis.

This has led to an increase in sales related to the use of electronic fans in 2023.

Furthermore, we have taken another step towards monitoring and greater energy efficiency by incorporating adjustable regulation systems in our Archimede software, which can be selected by our customers to control temperature (in the case of Dry-Coolers) or condensation pressure (in the case of condensers). The monitoring allows for optimisation of energy consumption to maintain the machine's operating set point.

## We have completed the development of the microchannel solution for ORC technology

In recent years, we have worked on "Organic Rankine Cycle" (ORC) technology, a system that uses a closed-circuit thermodynamic cycle, allowing the recovery of waste heat produced by industrial processes by transforming high temperatures into electrical energy. The economic and environmental benefits for companies investing in ORC systems involve reducing energy consumption – a product of waste heat transformation – without further use of primary energy.

To this end, in 2023 we completed the development of new integrated solutions with highly efficient and cost-effective microchannel units. The evolution of this technology is represented by Air Condensed ORC, which integrates a remote condenser at the end of the ORC cycle that assists in heat dissipation. In co-design, we developed and sold several units, specifically aimed at promoting the sale of innovative condensers with low pressure drop.

## We promote the use of microchannel technology in chillers

Compared to traditional tube technology, microchannel technology offers significant advantages in terms of environmental performance. In addition to having a lower weight and reduced thickness (while guaranteeing the same capacity), it mitigates environmental impact by using less refrigerant and cuts energy consumption thanks to lower air-side pressure drops. In the coming years, we intend to increasingly implement the use of microchannel technology: the process has already begun and we will continue to work in this direction, in line with European directives on environmental matters.

The role of our Sustainability Report is not only to monitor the progress made towards past objectives, but also to identify new objectives and projects to be pursued step by step towards a true sustainability strategy. For this reason, this year too, with reference to the "Sustainable product development" material topic, we have identified some objectives that we intend to achieve over the next few years.

First of all, we intend to start the production of microchannel products with the new "Modular power cooler" technology, a new solution for dry coolers. We started developing the product at the end of 2023 with the aim, in 2024, of finalising the calculation and design software and presenting the product at the Chillventa trade fair in October 2024. Our goal is to begin marketing the product starting in 2025.

Furthermore, in the field of technological innovation and thermal efficiency, we have been exploring and testing — over the last few years — the potential offered by 3D metal printing technology. The main challenge we faced was solving the problem of the uneven two-phase refrigerant flow at the distributor inlet. The homogeneity of the vapour/liquid mixture depends on system-related factors such as the presence of bends, valves, changes in pipe cross-section, etc. The non-uniform distribution of the liquid and vapour phases leads to an uneven supply of refrigerant to the heat exchanger. This issue results in system inefficiency and a reduction in heat exchange performance at the evaporator. After years of research and

development, in collaboration with the University of Udine, we completed our innovative 3D distributor. This cutting-edge solution, equipped with a helical groove and secondary channels that generate vortices to effectively mix the refrigerant flow, was developed using advanced CFD simulations and validated through stringent laboratory testing, demonstrating a significant increase in evaporator efficiency, improving it by up to 7%. In 2023, we obtained a patent for the product from the European Patent Office, acknowledging that our solution is a true innovation in the field. Following this result, we intend to implement this cutting-edge technology in our products, further strengthening our position as a leader in thermal efficiency and environmental sustainability. During 2024, we will identify laboratory partners to carry out tests aimed at extending the application of the results obtained to different refrigerants and usage conditions.





# Responsible supply chain



“Suppliers are made aware of the need to carry out their activities in accordance with standards of conduct consistent with those indicated in the Code. In particular, they must ensure integrity in business, respect the rights of their workers, invest in quality and manage the environmental and social impacts of their activities responsibly”

ThermoKey Code of Ethics

The supply chain represents the necessary prerequisite for the process of creating and distributing value within the Company. For this reason, we have always paid particular attention to the management of supplier relations, starting from the supplier selection phase.

Most of our suppliers are European, many of whom hold certification for environmental management systems according to ISO 14001.

In this regard, we consider it important to highlight that we have adopted an operational procedure for the evaluation of suppliers, through which we aim to ensure the use of suppliers with technical and qualitative characteristics suited to the Company’s needs.

In particular, we value the efficiency and effectiveness of our suppliers' production systems and the possession of certifications regarding quality management (ISO 9001), environmental management (ISO 14001) and occupational health and safety management systems (ISO 45001).

The European origin of raw materials, combined with the guarantee of an environmental management system certified according to international standards such as UNI EN ISO 14001, is considered important to guarantee the traceability of sustainable products in the supply chain.

Nevertheless, the management and continuous improvement of our supplier base are essential to achieving the objectives we have set, both in economic terms and in terms of sustainability.

With the aim of strengthening the oversight of our supply chain, we have developed a process for the qualification and monitoring of suppliers based on the assessment of environmental and safety aspects, in order to ensure compliance with, and respect for our standards. This process has so far focused on sending compliance questionnaires to our main suppliers: however, we intend to take a further step forward by integrating these questionnaires and sending them to around 150 suppliers, with specific questions on sustainability, in order to collect more detailed information on environmental, social and governance impacts. This new type of questionnaire will allow us to verify how suppliers view our main priorities and whether they align with our objectives, values, business ethics and social responsibility principles.

With regard to supply chain monitoring, within the scope of the sustainability plan we have also established an audit programme which involves preparing and organising audits based on specific risks, in order to assess the performance and production processes of suppliers. In this regard, we are pleased to report that over the course of 2023, we launched the necessary process to carry out the audits, which will be scheduled and initiated at the beginning of 2024. As proof of the effective progress towards this target, we have already scheduled the first audit at a major Italian supplier for February 2024. The audit will be carried out by qualified and properly trained personnel.



Geographical distribution of suppliers

For the majority of our purchases, we rely on local suppliers, as shown in the following table, which highlights that approximately 89% of our suppliers are based in Italy.

The table below shows our 123 Italian suppliers, broken down by geographical area of reference, highlighting that the majority of our supply chain relies on suppliers located in the region where our Company is based and in neighbouring regions.

| Country         | no. of suppliers |
|-----------------|------------------|
| Denmark         | 1                |
| France          | 1                |
| Germany         | 4                |
| Greece          | 1                |
| Italy           | 123              |
| The Netherlands | 1                |
| Poland          | 1                |
| Slovenia        | 1                |
| Sweden          | 1                |
| Turkey          | 2                |
| Vietnam         | 1                |

| Region              | no. of suppliers |
|---------------------|------------------|
| Campania            | 2                |
| Emilia Romagna      | 8                |
| Fvg                 | 26               |
| Lazio               | 1                |
| Liguria             | 1                |
| Lombardy            | 34               |
| Piedmont            | 5                |
| Apulia              | 1                |
| Tuscany             | 1                |
| Trentino-Alto Adige | 1                |
| Veneto              | 43               |



7.1 Purchased materials

The selection of materials, just like the selection of suppliers, represents a key element of our commitment to reducing the environmental impact of our production process. The main materials we purchase are steel, aluminium and copper, as shown in the table below, which also highlights the quantity of recycled material purchased:

For transparency purposes, it should be noted that in the first Sustainability Report, referring to the year 2022, the quantity of material purchased over an 18-month period was taken into consideration, whereas in this Sustainability Report, the quantity refers to a 12-month period.

The aluminium we purchase and use in our production is 100% recyclable. In terms of sustainable production, the recycling of aluminium is a fundamental process, as this material can be fully recycled and reused an infinite number of times to make new products: recovering it helps reduce waste of raw materials and energy.

| Material category        | Qty 2022 (18m) (kg) | Qty 2022 recycled (kg) | Qty 2023 (12m) (kg) | Qty 2023 recycled (kg) |
|--------------------------|---------------------|------------------------|---------------------|------------------------|
| Steel                    | 2.251.220           | 494.143                | 1.468.560           | 322.349                |
| ALUMINIUM coils          | 329.113             | 92.415                 | 197.477             | 55.452                 |
| Stainless steel coils    | 123.285             | 104.792                | 89.742              | 76.281                 |
| MPE                      | 343.909             | 0                      | 230.210             | 0                      |
| Fin tape                 | 1.432.240           | 145.229                | 963.733             | 97.723                 |
| Stainless steel fin tape | 35.174              | 21.104                 | 9.559               | 5.735                  |
| CU pipe                  | 1.075.277           | 0                      | 763.656             | 0                      |
| Stainless steel pipe     | 36.308              | 29.046                 | 22.854              | 18.283                 |

RECYCLED STEEL QUANTITY

322K kg

Sheet aluminium  
destined for use in  
ThermoKey solutions







# Sustainable use and management of resources



At ThermoKey, eco sustainability, in the sense of respecting and protecting the environment, is an essential requirement but also an effective driver for the development of innovative products, in line with a steadily evolving, increasingly efficient business model.

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Over the years, we have developed internal expertise in the area of assessing the environmental footprint of our products and activities, in order to mitigate and prevent these impacts according to the philosophy of continuous improvement.

Our commitment manifests itself not only through the gradual reduction of our environmental footprint, but also in the way we instil a culture of environmental sustainability among our customers and suppliers.

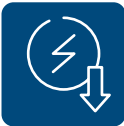
As a result of the strategic role that our company has taken on in the international market, we are constantly committed to providing solutions and products, paying particular attention to the sustainability of processes. In this respect, it is worth noting that:



We are Europe's top producers of cores and ventilated units with aluminium microchannel heat exchangers. Microchannel technology allows for a reduction in refrigerant charge of up to 65% and is compatible with zero-GWP refrigerants such as ammonia and propane.



To address water scarcity, we offer process cooling solutions with closed-circuit systems as an alternative to widely used evaporative cooling towers.



We are committed to energy efficiency by offering heat rejection solutions in free-cooling mode, enabling a substantial reduction in cooling energy costs.

## 8.1 Energy consumption

“Today, more than ever, it is strategically important for us to rely on technologies that allow the self-generation and efficient use of energy”

The monitoring of energy consumption is a fundamental part of energy management, which is why we consider it of paramount importance to commit to this by introducing energy-saving processes that will reduce the footprints of our three plants.

Below are the data relating to energy consumption, broken down by type and related to our facilities (STS, ST1 and ST2), together with the calculation of energy intensity for the year 2023.

Specifically, in order to calculate energy intensity, the following information was taken into account:

- The energy intensity ratio for the organisation;
- The specific parameter selected by the organisation (denominator) used to calculate the ratio;
- The types of energy included in the intensity calculation;
- Whether the ratio uses energy consumed within the organisation, externally, or both.

The Company has decided to report energy intensity based on turnover, namely as the amount of energy consumed per unit of sales revenue.

For the purposes of the calculation, the following were considered:

- Natural gas consumption
- LPG consumption
- Electricity consumption
- Diesel fuel and petrol consumption from company car fleet vehicles

The energy intensity ratio calculated below refers entirely to non-renewable energy sources used in the STS, ST1 and ST2

facilities, which will be considered globally, as annual turnover is expressed overall and not by production line. Below are the data relating to the consumption of natural gas, LPG, diesel, petrol and electricity for the year 2023, expressed in MJ, the total annual consumption as the sum of the various energy sources, turnover for 2023 and the calculation of energy intensity:

| Energy intensity        |            |               |
|-------------------------|------------|---------------|
| Description             | Total      | U.o.M.        |
| Natural gas consumption | 10.491.544 | MJ            |
| Petrol consumption      | 14.221     | MJ            |
| Diesel consumption      | 880.182    | MJ            |
| LPG consumption         | 6.694      | MJ            |
| Electricity consumption | 5.025.964  | MJ            |
| 2023 Energy Consumption | 16.418.230 | MJ            |
| 2023 Turnover           | 56.547.602 | EUR           |
| Intensity               | 0.023      | kg CO2,e/Euro |

In this respect, during 2023, total energy consumption amounted to 16,418,230 MJ. Specifically, electricity consumption amounted to approximately 5,025,964 MJ, natural gas consumption was 10,491,544 MJ and diesel consumption for the car fleet was 901,997 MJ.

Energy intensity for the year 2023 was 0.29 MJ/Euro.

Self-generated energy with a low environmental impact  
As in the previous year, in 2023 the electricity purchased was entirely sourced from the national grid. Currently, we do not have certificates or documentation relating to the share of renewable energy of the electricity mix used in the reporting year, therefore, in line with national data, the percentage of energy purchased from renewable sources is estimated at approximately 34.07%.

As highlighted in our first Sustainability Report in 2022, as a first step towards energy independence and reducing environmental impact, in August 2022 we completed the installation of a photovoltaic system on the roof of the ST2 facility.

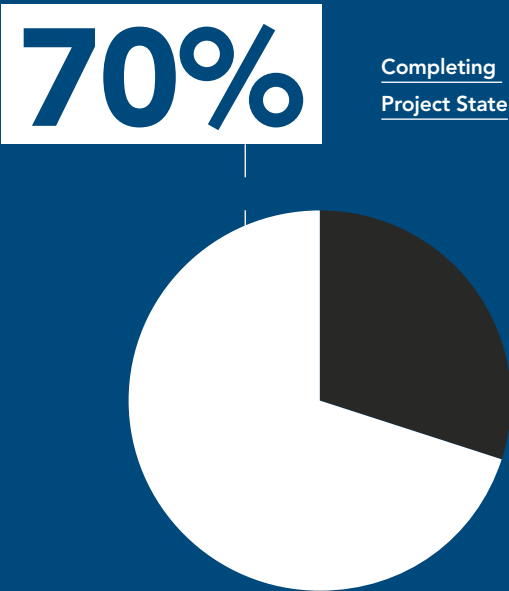
The system was built with the aim of ensuring maximum maintainability and remote monitoring. The photovoltaic surface is composed of modules with PERC (Passivated Emitter and Rear Cell) and HALF-CUT technology, allowing for better specific performance and longer lifespan of the installed technology.

In 2023, a total of approximately 450.49 MWh of electricity was self-generated, corresponding to 24.40% of total electricity consumption for the year.

RELAMPING PROJECT

The relamping project, which we had already mentioned in our first Sustainability Report, consists of replacing traditional lighting systems with LED lighting systems.

During 2023, we completed 70% of the lighting renovation programme at the STS facility and 15% at the ST1 facility. In 2024, we plan to complete the project in both facilities, bearing in mind that, while at the STS facility we can define the relamping as “total”, since the entire facility is already fully lit with LED technology, at the ST1 facility the project will involve the entire facility, including areas where no lighting system was originally planned, corresponding to approximately 50% of the area, which is not involved in the production process. However, as part of the relamping project, it is planned to install the lighting system in these areas as well.



8.2 Emissions

More than 10% of global greenhouse gas emissions come from the cooling and refrigeration services industry: cooling systems largely operate thanks to electricity produced from non-renewable sources and still use refrigerant fluids that are released into the atmosphere at the end of their life. One of our main commitments for the future is to make the world of refrigeration and air conditioning more sustainable.

Total emissions

In line with what was stated in our first Sustainability Report, during 2023 we extended the reporting boundary relating to emissions, proceeding, with the support of consultants specialised in the field, to also quantify Scope 3 emissions.

The calculation of the GHG inventory, expressed in tonnes of CO<sub>2</sub>e, is based on the GHG Protocol and is therefore broken down into Scope 1, Scope 2 and Scope 3.

SCOPE 1

For the purposes of reporting direct GHG emissions under SCOPE 1, the following sources were considered:

- **Direct emissions from stationary combustion** for heating purposes, obtained from natural gas consumption data from the STS, ST1 and ST2 facilities.
- **Direct emissions from mobile combustion** resulting from the combustion of fuel by the corporate vehicle fleet, including cars and vans, obtained from fuel consumption data of the company fleet and multiplied by the relevant emission factor.
- **Fugitive emissions** related to the maintenance of air conditioning systems, namely the possible replenishment of refrigerant gases (F-Gas), based on the intervention reports.

SCOPE 2

With regard to Category 2, indirect emissions relating to the consumption of energy used by the organisation are accounted for. In particular, emissions relating to the electricity impor-

ted by the company and used within its operations are included. To calculate the tonnes of CO<sub>2</sub>e, the consumption data were multiplied by the emission factor relating to the national energy mix.

SCOPE 3

Within Scope 3 emissions, indirect emissions of ThermoKey related to the transport of goods and people are reported, specifically:

1. **Emissions from upstream transport and distribution of goods**, including emissions due to the transport of raw materials and electricity (Category 3.a) With regard to the transport of raw materials, the tonne-kilometres of goods transported by road in 2023 have been quantified. Emissions due to the transport and distribution of electricity were also reported.
2. **Emissions from downstream transport and distribution of goods** related to the transport of products to customers and retailers. As for downstream transport, the tonne-kilometres of goods transported by road in 2023 have been quantified and multiplied by the relative emission factor.
3. **Emissions from transport of waste**, obtained by quantifying the tonne-kilometres of waste transported by road in 2023 and multiplying them by the relevant emission factor.
4. **Emissions due to employee commuting**. To determine these emissions, an internal, anonymous questionnaire was proposed to gather information relating to the type of vehicle used, fuel consumption, and kilometres travelled to and from the workplace. Again, the results were multiplied by an appropriate emission factor.

The total direct emissions, i.e. those in Scope 1, amounted to 831 t CO<sub>2</sub>e, the indirect emissions in Scope 2 (related to energy consumption) amounted to 463 t CO<sub>2</sub>e, while those in Scope 3 totalled 11,173 t CO<sub>2</sub>e, as shown in the comparative summary table with 2022 data overleaf (where available).

Il totale delle emissioni dirette, ovvero quelle di Scope 1, è stato quantificato in 831 t CO<sub>2</sub>e, quelle indirette di Scope 2 (relative al consumo di energia) corrispondono a 463 t CO<sub>2</sub>e<sup>1</sup>, mentre quelle di Scope 3 a 11.173 t CO<sub>2</sub>e, come risulta dalla tabella illustrativa che segue, comparativa con i dati 2022 ove presenti.



|   | tCO <sub>2</sub> e 2023 | tCO <sub>2</sub> e 2022 |
|---|-------------------------|-------------------------|
| SCOPE 1 direct GHG emissions                                  |                         |                         |
| Direct emissions from stationary combustion                   | 693                     | 726                     |
| Emissions from fuel in mobile devices                         | 61                      | 28                      |
| Direct emissions and removals from industrial processes       | 77                      | N/A                     |
| TOTAL SCOPE 1   | 831                     | N/A                     |
| SCOPE 2 indirect GHG emissions                                |                         |                         |
| Indirect emissions from imported electricity                  | 463                     | 470                     |
| TOTALE SCOPE 2 (Location Based)                               | 463                     | 470                     |
| SCOPE 3 indirect GHG emissions                                |                         |                         |
| Emissions from upstream transport and distribution of goods   | 750                     | N/A                     |
| Emissions from downstream transport and distribution of goods | 152                     | N/A                     |
| Emissions from commuting                                      | 386                     | N/A                     |
| Emissions from purchased goods                                | 9,530                   | N/A                     |
| Emissions from disposal of solid and liquid waste             | 2                       | N/A                     |
| Emissions from the use of assets                              | 352                     | N/A                     |
| Other Emissions (water consumption and remote working)        | 1                       | N/A                     |
| TOTAL SCOPE 3 INDIRECT GHG EMISSIONS                          | 11,173                  | N/A                     |

<sup>1</sup>The GHG emissions of Scope 1 and 2 have been quantified on the basis of the UNI EN 14064:1-2019 standard, and the following databases for the emissions factors:

- Ecoinvent 3.10 for emission processes;
- UK Department for Environmental, Food & Rural Affairs (hereinafter referred to as UK DEFRA) Conversion Factors 2023 (<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>) solely for combustion processes of diesel, petrol, methane, and LPG. In this case, the UK DEFRA database was used to obtain the quantity of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O generated from combustion processes to be included in the inventory.

For the calculation of the national energy mix, the composition of electricity relating to the “Total Supplier mix” reported in Table 4 of the document “European Residual Mixes 2022 – Association of Issuing Bodies” provided by AIB for the year 2022 was also used, thus adopting the most up-to-date information for determining the mix. Lastly, it should be noted that the software used to calculate the Carbon Footprint was OpenLCA 2.1.1, implemented with the Ecoinvent 3.10 database.



Emission intensity

The GHG emission intensity rate of the organisation was calculated by dividing the absolute GHG emissions (numerator) by the organisation's specific parameter (denominator); in the case of Scope 3 indirect emissions, the intensity rate must be reported separately from the intensity data relating to direct emissions (Scope 1) and indirect emissions from energy consumption (Scope 2). The specific parameter used may refer to the product (e.g. units produced, kilograms produced), to the number of employees, or to revenue in monetary terms.

For the Company, the specific parameter chosen to calculate the GHG emission intensity was the turnover for the year 2023 expressed in euro, as shown in the following tables:

| Scope 1+Scope 2 emission intensity |            |                          |
|------------------------------------|------------|--------------------------|
| Description                        | Total      | U.o.M.                   |
| Emissions (Scope 1+2)              | 1'293'000  | kg CO <sub>2</sub> e     |
| 2023 turnover                      | 56'547'602 | EUR                      |
| Intensity                          | 0.023      | kg CO <sub>2</sub> e/EUR |
| Scope 3 emission intensity         |            |                          |
| Description                        | Total      | U.o.M.                   |
| Emissions (Scope 3)                | 11'172'000 | kg CO <sub>2</sub> e     |
| 2023 turnover                      | 56'547'602 | EUR                      |
| Intensity                          | 0,198      | kg CO <sub>2</sub> e/EUR |

Ghg emissions mitigation actions

Our Company is actively engaged in reducing GHG emissions. The inventory for the year 2023 highlighted that the greatest contribution in terms of CO<sub>2</sub>e emissions concerned indirect emissions, and not emissions directly attributable to the company. The results obtained, as detailed previously, show that indirect emissions from the products used accounted for approximately 79% of total emissions, amounting to 9,884 t CO<sub>2</sub>e.

Indirect transport emissions (1,288 t CO<sub>2</sub>e) and indirect emissions from imported energy (831 t CO<sub>2</sub>e) accounted respectively for 10% and 7% of total GHG emissions, while indirect emissions from imported electricity, amounting to 463 t CO<sub>2</sub>e, contributed 4% of total emissions.

Based on these results, we are committed to developing and promoting the following actions, aimed at reducing GHG emissions as much as possible:

- Promote efficient employee commuting;
- Assessing and favouring energy suppliers who guarantee a higher percentage of energy produced from renewable sources;
- Promoting research, development, and dissemination of microchannel technology – as it is potentially less impactful – raising awareness among end customers;
- Encouraging the adoption of material supply policies that include a life cycle analysis of the product to reduce Greenhouse Gas emissions;
- Enhancing the supplier base to prioritise European and local suppliers;
- Reviewing production processes in order to reduce production waste and rework;
- Investments aimed at improving production efficiency and product quality;
- Optimising movements related to internal and external logistics;
- Renewal of plants and technologies with a view to reducing consumption;
- Promoting product design and marketing activities aimed at improving energy efficiency.

Since, as previously mentioned, the greatest contribution comes from indirect emissions from the products used, our Company's commitment is to raise awareness along the supply chain, recruiting all parties involved in the production of products and services. The adoption of sustainability policies in the supply chain makes it possible to manage and mitigate environmental, social, and economic impacts and encourages good governance practices through the analysis of the life cycle of goods and services (Life Cycle Assessment), involving all the actors in the production chain from manufacturing to the sale of a product or service, through distribution channels.

8.3 Waste management

We are aware of the importance of proper waste management and, for this reason, we have implemented an appropriate system for the organisation, management, and control of waste which, on the one hand, ensures compliance with sector regulations and, on the other, encourages actions to reduce the environmental impact of waste, prioritising material recovery activities.

Only when – due to their characteristics or type – waste cannot be sent for recovery, is it sent for disposal.

Below are the data on waste generated by our Company in 2022 and 2023, broken down by category (“hazardous” – “non-hazardous”) and by destination (“recovered” – “disposed”).

| Unit of measurement Kg | 2022                |                   |                     | 2023                  |                   |                      |
|------------------------|---------------------|-------------------|---------------------|-----------------------|-------------------|----------------------|
|                        | Non-hazardous       | Hazardous         | TOTAL               | Non-hazardous         | Hazardous         | TOTAL                |
| Recycled               | 928.133<br>(99,86%) | 2.930<br>(75,13%) | 931.063<br>(99,75%) | 1.027.710<br>(99,16%) | 5.642<br>(88,82%) | 1.033.352<br>(99,1%) |
| Disposed               | 1.340<br>(0,14%)    | 970<br>(24,87%)   | 2.310<br>(0,25%)    | 8.670<br>(0,84%)      | 710<br>(11,18%)   | 9.380<br>(0,9%)      |
| Total                  | 929.473<br>(100%)   | 3.900<br>(100%)   | 933.373<br>(100%)   | 1.036.380<br>(100%)   | 6.352<br>(100%)   | 1.042.732<br>(100%)  |

In both 2022 and 2023, approximately 99% of the total waste generated as a result of our production process was sent for recycling, in line with our approach aimed at maximising waste recovery.

The amount of waste produced during 2023 was higher than that recorded in the previous year. This increase is mainly due to restructuring activities carried out on our offices during the year, which resulted in the disposal of waste mainly from the demolition of walls (including plasterboard).

Furthermore, at the beginning of 2023, a reorganisation of external areas, particularly the waste area, was carried out; this activity also led to a further increase in waste. Lastly, the increase in waste also includes the amount generated by the company canteen, inaugurated in mid-2023. The waste generated is mainly organic, non-hazardous waste, as well as paper, cardboard, and plastic from food packaging.

With reference to our production cycle, we can affirm that the waste generated is predominantly non-hazardous, such as non-contaminated packaging and processing waste (e.g. packaging cardboard, aluminium, iron and steel, wood).

The Company generates a very small amount of hazardous waste, such as chemical containers (which are contaminated) or equipment (gloves or rags contaminated with oil). Other hazardous waste may occasionally be generated by specific activities such as oil washes, or from extraordinary maintenance and new production processes. With reference to 2023, hazardous waste mainly originated from the ordinary production process (and therefore from the management of chemical substance containers and equipment contaminated by such substances) and from the disposal of waste linked to the restructuring activities described above.

From an organisational point of view, the responsibility for managing waste falls to the Head of the Integrated Management System. This role deals with the selection of suppliers, requests for collection of materials, managing and compiling waste identification forms, registering loads and discharges, and managing the waste from extraordinary maintenance processes.

With regard to hazardous waste and waste from extraordinary maintenance processes, the Company has designated workers to take samples, which are sent to external laboratories under the supervision of the Head of the IMS.



For hazardous waste, these samples are taken once a year, whereas the waste generated by extraordinary maintenance processes is tested according to need. We also make use of the support of a safety adviser for the transport of dangerous goods by road (ADR) to transfer hazardous waste to the site of the third-party supplier responsible for disposal in accordance with current regulations.

Furthermore, we intend to focus our attention on reducing sheet metal scrap in the sheet metal department. To this end, we have implemented organisational changes by appointing a Head of Production Engineering, reporting directly to the COO, whose role will be to focus their expertise on optimising production waste by 2025. In 2024, we are committed to identifying a minimum target percentage for the reduction of production waste that we aim to achieve.

Our progress towards improving waste management

In our first sustainability report, we referred to planning of an action aimed at reducing the volume of waste produced through compaction. This project is particularly relevant in the area of managing environmental impacts related to waste, with the objective of improving our logistics operations by reducing the number of waste collections carried out by external carriers and, at the same time, reducing CO<sub>2</sub> emissions.

In 2023, we began using a tool to compact waste belonging to the "mixed packaging" category and achieved a concrete reduction in the number of waste collections carried out by carriers, equal to approximately 22.73% compared to the previous year 2022.

Raising employee awareness on reducing the use of plastic bottles

Another important eco sustainability project is linked to the elimination of plastic bottle usage across the entire workforce. As part of this project we have installed water towers, which are connected directly to the water mains and distribute still, sparkling and chilled water. The machines were installed near the refreshment areas of the STS and ST1 production departments, in the canteen area of ST2, and in the STS offices. To fully eliminate the use of plastic, we have also given each employee a personalised aluminium water bottle. Aluminium was our material of choice, to remain in line with our sustainability objective, as it can be recycled an infinite number of times without losing any of its properties.





Human capital

9



The Company is always committed to promoting its human capital, which is seen as the principal factor in its success. This commitment is based on the sharing of common values and principles, the desire to build a single corporate culture focused on continuous improvement and the recognition of individual contributions. We are also committed to equal opportunities, and to ensuring that each worker has the opportunity to progress, in order to promote processes of change and innovation.



9.1 Employment and diversity

“Our value is to enable every single person to best express their individual talent.”

|                     | 2023 |       |     | 2022 |       |     |
|---------------------|------|-------|-----|------|-------|-----|
|                     | Men  | Women | TOT | Men  | Women | TOT |
| Permanent contract  | 132  | 52    | 184 | 118  | 48    | 166 |
| Fixed-term contract | 15   | 8     | 23  | 19   | 6     | 25  |
| Apprentice-ship     | 3    | 1     | 4   | 5    | 1     | 6   |
| Total               | 150  | 61    | 211 | 142  | 55    | 197 |

In 2023, we further increased the number of employees, reaching the highest level of employment since the Company was established. As at 31 December 2023, the employee population, including equivalent workers, consisted of 211 people (197 in 2022), of which 184 under permanent contracts, 23 under fixed-term contracts, and 3 apprentices.

At ThermoKey we consider it essential to pursue a policy of stabilising employment over time; our attention is directed towards our employees, also through the establishment of medium to long-term working relationships. To this end, in 2023 we recorded an increase in the number of employees under permanent contracts, rising from approximately 85% in 2022 to approximately 87%.

Traditionally, our business sector has had a higher percentage of male employees than females.

Nonetheless, our staff selection policy at all levels is exclusively focused on evaluating the candidates’ skills in relation to labour demand, regardless of gender and any other characteristic that may represent a form of discrimination.

To this end, as already mentioned in paragraph 5.7, over the next few years we intend to take a fundamental step forward in our sustainability journey, committing to the selection of a certifying body in order to apply for and obtain gender equality certification in 2025.

|                 | 2023 |       |     | 2022 |       |     |
|-----------------|------|-------|-----|------|-------|-----|
|                 | Men  | Women | TOT | Men  | Women | TOT |
| Managers        | 6    | 1     | 7   | 6    | 1     | 7   |
| Middle managers | 3    | 0     | 3   | 3    | 0     | 3   |
| Employees       | 36   | 24    | 60  | 34   | 21    | 55  |
| Manual workers  | 105  | 36    | 141 | 99   | 33    | 132 |
| Totale          | 150  | 61    | 211 | 142  | 55    | 197 |



To accommodate the needs of our workforce, we also offer staff the opportunity to work part-time. This type of contract is particularly appreciated by our female employees, who can make use of this option in the post-maternity period, allowing them to better balance family commitments with their professional activity.

|           | 2023 |       |     | 2022 |       |     |
|-----------|------|-------|-----|------|-------|-----|
|           | Men  | Women | TOT | Men  | Women | TOT |
| Full Time | 149  | 45    | 194 | 141  | 43    | 184 |
| Part Time | 1    | 16    | 17  | 1    | 12    | 13  |
| Total     | 150  | 61    | 211 | 142  | 55    | 197 |

## Employee age groups and roles

The distribution of employees by age group is virtually in line with that of the previous year: as shown in the table below, the majority of our workforce falls within the 30–50 age group (approximately 52%), followed by employees aged over 50 (around 31%), while the remaining share (about 17%) is under the age of 30.

|                 | 2023       |             |            |     | 2022       |             |            |     |
|-----------------|------------|-------------|------------|-----|------------|-------------|------------|-----|
|                 | < 30 years | 30-50 years | > 50 years | TOT | < 30 years | 30-50 years | > 50 years | TOT |
| Managers        | 0          | 4           | 3          | 7   | 0          | 5           | 2          | 7   |
| Middle managers | 0          | 1           | 2          | 3   | 0          | 1           | 2          | 3   |
| Employees       | 13         | 33          | 14         | 60  | 12         | 29          | 14         | 55  |
| Manual workers  | 23         | 72          | 46         | 141 | 21         | 71          | 40         | 132 |
| Total           | 36         | 110         | 65         | 211 | 33         | 106         | 58         | 197 |

Employees with  
part-time contract

87%

IN 2022-2023

## Contractors

To complete the overview of our human resources, the table below indicates the number of contractors: in 2023 there has been a slight decrease in this category compared to the previous year.

|             | 2023 |       |     | 2022 |       |     |
|-------------|------|-------|-----|------|-------|-----|
|             | Men  | Women | TOT | Men  | Women | TOT |
| Contractors | 9    | 3     | 12  | 9    | 6     | 15  |
| Trainees    | 0    | 0     | 0   | 0    | 0     | 0   |
| Total       | 9    | 3     | 12  | 9    | 6     | 15  |

## Collective bargaining

In line with previous years, in 2023, 100% of our employees were covered by collective bargaining agreements.

## Parental leave

Below are the quantitative data relating to employees who have taken parental leave, broken down by gender:

As proof that ThermoKey offers an inclusive and rewarding workplace, 100% of employees who took maternity or paternity leave are still with the company today.

|       | 2023         |                    |   |   | 2022         |                    |   |   |
|-------|--------------|--------------------|---|---|--------------|--------------------|---|---|
|       | No. entitled | No. who took leave | No. who returned to work after taking leave | No. still employed 12 months after taking leave | No. entitled | No. who took leave | No. who returned to work after taking leave | No. still employed 12 months after taking leave |
| Men   | 1            | 1                  | 1   | 1   | 3            | 3                  | 3   | 3   |
| Women | 3            | 3                  | 3   | 2   | 6            | 6                  | 6   | 6   |
| Total | 4            | 4                  | 4   | 3   | 9            | 9                  | 9   | 9   |

Personnel selection and turnover

The selection of personnel to be hired or to collaborate with is carried out based on the match between candidates’ profiles and the company’s needs, ensuring equal opportunities for all interested parties, without any gender discrimination.

We recruit candidates on the basis of equality and non-discrimination, avoiding any kind of favouritism or preferential treatment.

In 2023, we recorded a net increase in personnel of 14 resources:

The information we request during interviews is always strictly related to the assessment of professional and psycho-aptitude skills, with respect for the candidate’s private sphere and opinions.

|       | 2023    |      |         |      | 2022    |     |         |     |
|-------|---------|------|---------|------|---------|-----|---------|-----|
|       | JOINING |      | LEAVING |      | JOINING |     | LEAVING |     |
|       | Number  | %    | Number  | %    | Number  | %   | Number  | %   |
| Men   | 22      | 74%  | 14      | 88%  | 27      | 73% | 13      | 68% |
| Women | 8       | 26%  | 2       | 13%  | 10      | 27% | 6       | 32% |
| Total | 30      | 100% | 16      | 100% | 37      | 100 | 19      | 100 |

The table below shows the turnover broken down by age group:

|             | 2023    |      |         |      | 2022    |      |         |      |
|-------------|---------|------|---------|------|---------|------|---------|------|
|             | JOINING |      | LEAVING |      | JOINING |      | LEAVING |      |
|             | Number  | %    | Number  | %    | Number  | %    | Number  | %    |
| < 30 years  | 12      | 42%  | 6       | 38%  | 19      | 51%  | 6       | 32%  |
| 30-50 years | 16      | 52%  | 9       | 56%  | 12      | 32%  | 10      | 53%  |
| > 50 years  | 2       | 6%   | 1       | 6%   | 6       | 16%  | 3       | 16%  |
| Total       | 30      | 100% | 16      | 100% | 37      | 100% | 19      | 100% |

9.2 Staff training and development

Training

ThermoKey is always committed to creating a workplace in which individual contributions and talents are truly valued. We do this by promoting a team-based approach rather than a hierarchical structure, with the aim of sharing skills and knowledge and using innovative systems.

all employees understand it and be aware of the related documentation. Another objective we aim to achieve during 2024 is to include training initiatives on ESG issues in order to disseminate the culture of sustainability among our employees.

Below are the data relating to employee training, broken down by role level:

| TK EMPLOYEES<br>(EXCLUDING<br>CONTRACTORS) | 2023           |                     | 2022           |                     |
|--|----------------|---------------------|----------------|---------------------|
|  | Total<br>hours | Hours<br>per capita | Total<br>hours | Hours<br>per capita |
| Managers                                   | 0              |                     | 16             | 2                   |
| Middle managers                            | 79             | 26,3                | 27             | 9                   |
| Employees                                  | 790            | 13,2                | 101            | 2                   |
| Manual workers                             | 1502           | 10,7                | 681            | 5                   |
| Totale                                     | 2371           |                     | 825            | 4                   |

TK News

To keep our workforce constantly updated about life at ThermoKey, “TKNews” was launched: short newsletters which are emailed to staff and posted on noticeboards around the company for everyone to see. The aim is to provide employees with information and knowledge through an internal corporate communication channel.

Team Building

“The guiding principles and values of a successful team include having shared objectives, a sense of belonging, and cohesion.”

We believe that a team should be based on trust and mutual respect, which are essential qualities that encourage each member to freely express their opinions, take responsibility and be proactive. These are all aspects encouraged by team building.

For this reason, starting in the autumn of 2022, we launched a series of meetings with the line managers and supervisors, aimed at building the team within the production unit. The purpose of these meetings is to encourage people to share and discuss opinions in order to reach a solid, unanimous view on key areas such as motivation, the need to establish and manage interpersonal communications effectively and develop the ability to work as a team.

In 2023, compared to the previous year, there was an increase in training activities for all employees. This increase was mainly linked to the expiry of the five-year period relating to the mandatory training update on health and safety in the workplace.

Training activities were conducted in a dedicated classroom within the company, in the presence of an internal trainer qualified in health and safety in the workplace, assisted by the Integrated Management System Manager.

Consistent with the material topic "Staff training and development", included in our previous sustainability report, we further strengthened our training initiatives during 2023. We enhanced the mandatory training activities by introducing specific content regarding governance and, in particular, on the structure and purpose of the 231 organisational model, to help



The guiding principles and values of a successful team include having shared objectives, a sense of belonging, and cohesion

To ensure that these meetings are helpful in terms of meeting our goals, we employ the services of a workplace psychologist, who specialises in emotional intelligence and cultural change.

The main topics covered during the sessions are the following: (I) leading a team by promoting the specific characteristics of each member, (II) recruiting new hires and structuring an induction programme, (III) planning professional development programmes, (IV) building accountability, encouraging proactivity and autonomy, (V) setting up meetings effectively and efficiently, (VI) managing communication for Industry 4.0, (VII) caring about quality and waste issues, (VIII) preventing accidents and occupational illness.

In our first sustainability report, we recognised the value of the psychologist's contribution, also in light of the positive feedback we received from employees, and we are committed to maintaining their involvement by increasing their interest in topics such as staff engagement and participation.

In this regard, we believe that this objective has been achieved, as in 2023 we continued to hold regular sessions of counselling and discussion with the psychologist, covering various topics ranging from the resolution of internal conflicts to addressing personal discomfort, as well as issues related to motivation and employee engagement.

Also in 2022, we set up a management team to support the Board of Directors in developing the company's strategies, policies and objectives. The team held weekly alignment meetings to discuss the work required, and these activities have been very useful in terms of teambuilding.



### 9.3 Wellbeing, health and safety of personnel

“Employee well-being is a fundamental aspect in ensuring the company’s success in the short, medium and long term. For this reason, we strive to guarantee all employees the best conditions both inside and outside the workplace.”

#### Corporate welfare

Pay and benefits are based on the provisions of the National Collective Agreement (CCNL) for the Metalworking Industry. In particular, we provide our employees with access to a supplementary Health Care Fund, which aims to offer supplementary healthcare services alongside the National Health Service. The CCNL also requires us to pay benefits of 200 euro per annum, which we deliver in the form of an e-card or shopping voucher.

With a view to increasing the satisfaction and well-being of our employees, approximately three years ago we introduced a performance bonus, the parameters of which are easily measurable and linked to results agreed with trade unions.

In our first sustainability report, we announced our intention to link the 2023 performance bonus to welfare benefits, by introducing a dedicated digital platform focused on different areas of intervention and suitable for responding to the needs of employees.

The technical time required to set up the platform did not allow us to activate it in relation to the 2023 performance bonuses; however, we intend to use it starting from the distribution of the welfare vouchers provided for by the CCNL, which will be issued in June 2024.

The development of the welfare system is closely linked to the evolution of our incentive programme. In 2023, in addition to generally awarding a higher performance bonus to our employees, we also revised the calculation method, linking the

amount to each beneficiary's gross annual salary (RAL). This new system is designed to reward merit, role and seniority more appropriately, without penalising those employees with lower salaries, but encouraging those who possess a high level of skill and experience within the company, while proportionally increasing benefits for all, even those newly hired.

As part of the implementation of our welfare policies, in our first Sustainability Report we announced our intention to introduce, starting from 2023, a company canteen service for all employees. This objective has been achieved, and the company canteen service has been established within an area called the "spazio ristorante", where menus are offered with a focus on promoting health, seasonality, and the use of local and organic products. In order to reduce the environmental impact of the canteen service, we have decided to take steps to introduce a vegan and/or vegetarian option to replace one of the four daily menu proposals and to consider the possibility of designating one day a week to offer exclusively meat-free dishes ("Meatless Day"). Furthermore, the Company intends to carry out a study on the ingredients used in the canteen service preparations, with the aim of comparing the current CO2 emissions and water consumption with those that will result from the introduction of healthier and more sustainable menu options. The project is still at an early stage, but its developments will be reported in future Sustainability Reports.

Another project in the pipeline is "W il lunedì" ("Roll on Monday"), a set of initiatives proposed by the management team and aimed at enhancing employee well-being within the company, as well as increasing the company's attractiveness externally. Work is already underway on some of the services and quality upgrades at the company, such as the canteen, the re-

novation of the ground-floor offices (including the installation of LED lighting), the consolidation of performance bonuses, the installation of security cameras, the placement of road signs in the outdoor yards, and training course. Other initiatives, however, will be developed over time, such as the organisation of team-building activities and the installation of an air conditioning system in the production areas. The mindset behind the “Roll on Monday” project is to create a comfortable, fulfilling working environment that makes people look forward to going back to work at the beginning of the week.

Worker health and safety

Worker health and safety is so important to ThermoKey that it has become a real mission.

We strive on a daily basis to promote and raise awareness of the culture of safety and risk management. We support all those implementing responsible behaviours within the organisation, taking preventive action to protect the health and safety of all employees and other individuals working within the company.

Our employees are required to comply strictly with HSE laws, regulations and other measures imposed by company policy and procedures.

As already mentioned in the paragraph on certifications, our management system is certified according to ISO 45001:2018. This also includes a Quality Environmental and Safety Management System Department, which enforces and constantly monitors the degree to which procedures are applied, and oversees the entire system.

From a management point of view, the Safety Department is very active and scrupulous in the management of processes, constantly informing the Board of Directors of any weaknesses to be addressed according to an investment priority plan.

In addition to the continuous updating of the Health and Safety Management System, we have also launched a second improvement process, involving the digitisation of Processes through the creation of a dedicated web service — Q-81® HSE WEB APP. The introduction of this tool will make it easier to manage the level of operations and to reduce errors due, for example, to unmonitored deadlines.

Finally, we think it is important to reiterate that in order to assure worker safety in outdoor areas of the site, we have also started to introduce horizontal road signage.

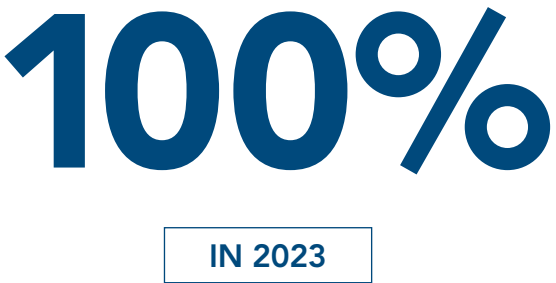
With a view to the continuous improvement of measures aimed at protecting workers’ health and safety, and in line with the material topic “Wellbeing, health and safety of personnel” identified in our materiality matrix, in 2023 we decided to gradually introduce the use of exoskeletons in the assembly departments (tube fitting) and in the fin pack handling area, with very positive feedback. These are wearable robotic structures that work in symbiosis with the operator following their movements. This technology provides effective support to workers and is able to sustain the upper limbs of the wearer by replicating the natural movements of shoulders and arms, helping to prevent and reduce the onset of musculoskeletal disorders associated with physically demanding tasks. The load perceived by the worker is thus alleviated (muscle strain at shoulder level is reduced by 30%), significantly reducing physical fatigue.

In 2023, we also carried out renovation works on the offices, so that the ground floor of the STS facility is now suitable to offer a spacious work environment with excellent air quality, the possibility of adjusting the temperature in the various areas, new blinds to regulate natural light, and adjustable artificial lighting. We also upgraded the electrical and data system, eliminating the presence of cables on the floor and ensuring a safer and tidier work environment.

Another initiative implemented in 2023, which was very positively received by our employees, was the introduction of portable evaporative coolers, with a total of 15 units installed across the three production sites. The operating principle is based on a simple natural process: the evaporation of water lowers the air temperature. Compared to air conditioners, the advantages include an extremely low CO2 impact, reduced energy consumption, the absence of chemical products or refrigerants, and a reduced risk of virus and bacteria proliferation.

Further measures were also adopted to counteract heat, such as the availability of drinking water and the distribution of mineral salt supplements (magnesium and potassium) to prevent dehydration.

Employees covered by the health and safety management system at the workplace



In 2023 we introduced exoskeletons: a technology which reduces muscular effort, helping to prevent and delay the onset of musculoskeletal disorders associated with physically-demanding tasks.







# ThermoKey and the community

10



# 10.1 Supporting and developing the local community

We are aware and proud of our impact on the socioeconomic development of our local area, and on the community as a whole. ThermoKey places the utmost importance on the environment, by supporting cultural and social initiatives and seeking to build on its reputation.

ThermoKey is supporting local employment in Friuli Venezia Giulia by working actively with the University of Udine to promote the image of the company and engage students with a view to their potential future employment at our organisation.

We have now started a collective internship programme for undergraduates, during the course of which a project was developed and presented at the University. We believe it is essential to develop the potential of talented young people and boost the attractiveness of ThermoKey by promoting involvement in these training programmes.



Furthermore, we are constantly working towards the goal of awarding two scholarships to launch a project for the development of green tools and technologies; however, this is not a simple task. Unfortunately, the attractiveness of PhD programmes in Italy is not particularly high, and many young researchers prefer to move abroad, where they benefit from higher financial recognition compared to what is offered in Italy.

In order to strengthen our business ties with the local area, our company is a member of the Industrial Association of the Province of Udine (Confindustria Udine).

In 2023, we also participated for the first time in the Udine Job Fair and in the Conference on Artificial Intelligence and Business Management, organised by ALIG (the Association of Graduates in Management Engineering of the University of Udine). The aim of the event was to bring students closer to the world of work and businesses, by supporting their personal and professional development through the creation of a point of contact between graduates and the job market, as well as through the organisation of socio-cultural activities.

This event represented an important opportunity for our company to introduce itself to a pool of young talents looking for job opportunities, but also as a valuable networking moment with the professionals attending the fair.

Speech by Giuseppe Visentini at the initiative organized by the University of Udine aimed at conveying to Management Engineering students content, perspectives, and experiences of Management directly from the leadership of local companies

## The telethon udine relay

As a demonstration of our social commitment, in December we formed a team to take part in the 24-hour relay organised by the Telethon Foundation and held in the historic centre of Udine.

The event was organised in support of scientific research on rare diseases, with the aim of improving the lives of thousands of people.

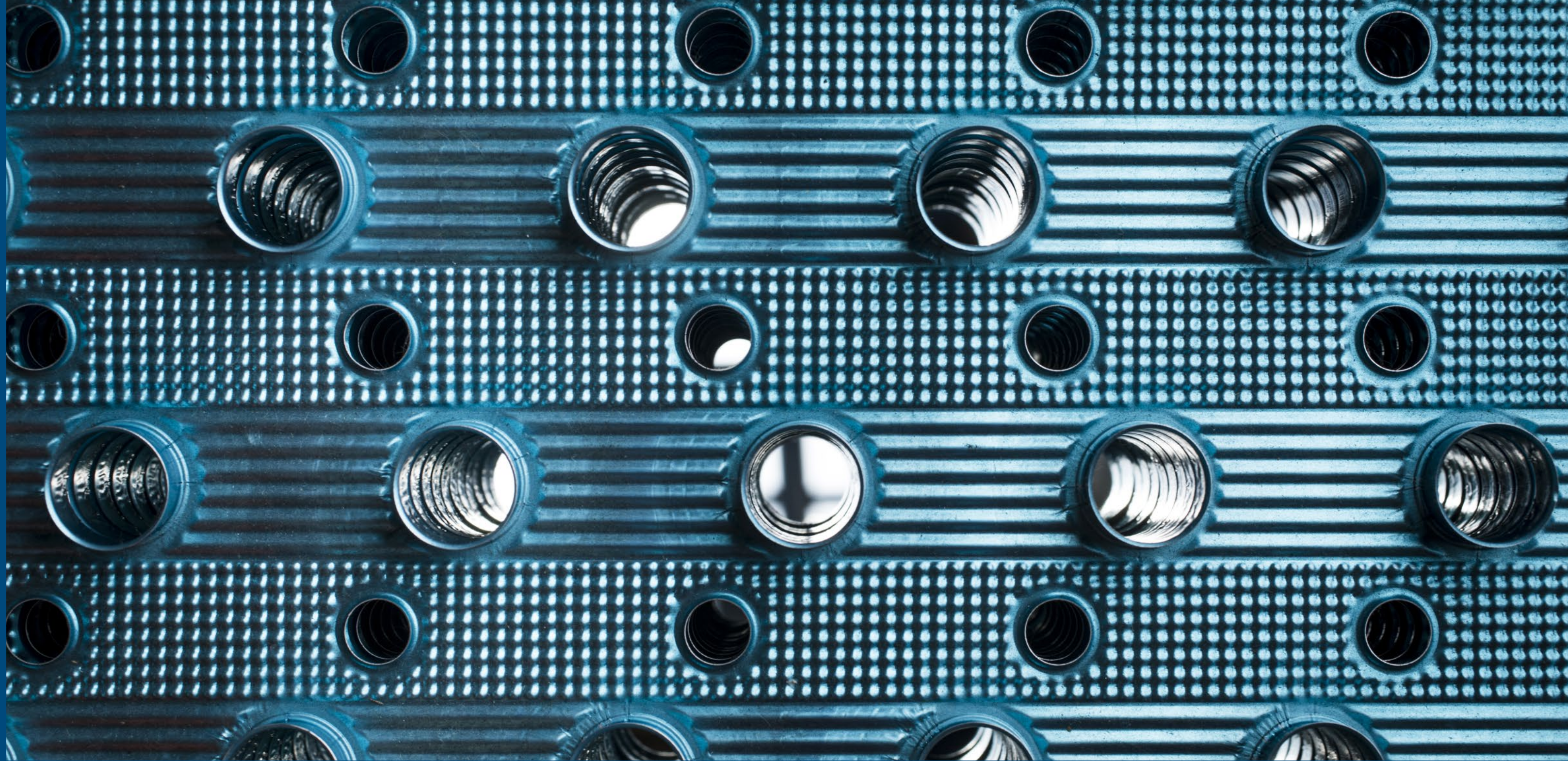
It was an opportunity to strengthen team spirit, promote health and well-being among colleagues, and demonstrate our social responsibility.

Our team included participants from Production, Sales, Customer Technical Support, Quality, the Technical Department, Administration, IT, and Management. It was a moment in which every department joined forces for a common cause, showing our social commitment.

The ThermoKey team ran a total of 266 km in support of research







# Methodology notes

11



# 11.1 Preparing the sustainability report and defining material topics

The reporting scope of the data included in this document refers to the company ThermoKey S.p.A.

ThermoKey S.p.A. has reported the information listed in the GRI Content Index for the period from 1 January 2023 to 31 December 2023, with reference to the GRI Standards.

The sustainability report is aligned with the financial reporting period.





The data from the previous period (2022) are contained in this sustainability report for the purposes of comparison, to allow stakeholders to assess the performance of activities over time.

We have established an internal workgroup, representing the main company functions, with the aim of gathering the required information, aggregating it, validating it, and archiving the documentation to ensure its traceability.

The reporting process was divided into the following key work phases:

## REPORTING PROCESS

### Key work phases

|  |  |  |   |
|--|--|--|---|
| <div>1</div> <div>Selection and engagement of stakeholders;</div> <div></div> | <div>2</div> <div>Identification of material topics and creation of the materiality matrix;</div> <div></div> | <div>3</div> <div>Definition of the report content (indicators, information and scope).</div> <div></div> | <div>4</div> <div>Launch of the collection and consolidation process regarding non-financial data and information.</div> <div></div> |
|--|--|--|---|

# 11.2 Our sustainability team

The person responsible for the sustainability report is our CEO, **Giuseppe Visentini**.

Further information about the content of this report can be obtained by sending an email to **sustainability@ThermoKey.com**.

This project was made possible thanks to the hard work of an in-house team, comprising Loris Ottogalli, Matteo Talmassons, Alessandra Burba and Lisa Pat, assisted by a team of external advisors from RLVT Tax-Legal AFC Advisory (Francesco Lipari, Alain Devalle, Chiara Cervellin and Fabio Beltrame) and C.S.I. Studio (Renato Cinelli and Elvira Salvato).





11.3 Gri content index

|  | GRI 1 USED   | GRI 1 - FOUNDATION 2021                    |
|--|--|--|
| GRI UNIVERSAL STANDARD                   | DISCLOSURE   | Paragraph                                  |
| General disclosures                      |  |  |
| GRI 1_Foundation 2021                    | REPORTING WITH REFERENCE TO GRI STANDARDS  | 11.1. – 11.2 - 11.3.                       |
| GRI 2_General disclosures 2021           | 2-1 ORGANISATIONAL DETAILS   | 3.1. – 3.3.                                |
| GRI 2_General disclosures 2021           | 2-2 ENTITIES INCLUDED IN THE SUSTAINABILITY REPORTING OF THE ORGANISATION            | 11.1                                       |
| 11.1.                                    | 2-6 ATTIVITÀ, CATENA DEL VALORE E ALTRI RAPPORTI DI BUSINESS                         | 1. - 3.2. – 3.3. – 3.4.                    |
| GRI 2_General disclosures 2021           | 2-3 REPORTING PERIOD, FREQUENCY AND CONTACT POINT                                    | 11.1. – 11.2.                              |
| GRI 2_General disclosures 2021           | 2-6 ACTIVITIES, VALUE CHAIN AND OTHER BUSINESS RELATIONSHIPS                         | 1. - 3.2. – 3.3. – 3.4.                    |
| GRI 2_General disclosures 2021           | 2-7 EMPLOYEES  | 9.1.                                       |
| GRI 2_General disclosures 2021           | 2-8 WORKERS WHO ARE NOT EMPLOYEES  | 9.1.                                       |
| GRI 2_General disclosures 2021           | 2-9 GOVERNANCE STRUCTURE AND COMPOSITION   | 5.1. – 5.2.                                |
| GRI 2_General disclosures 2021           | 2-11 CHAIR OF THE HIGHEST GOVERNANCE BODY  | 5.1.                                       |
| GRI 2_General disclosures 2021           | 2-12 ROLE OF THE HIGHEST GOVERNANCE BODY IN OVERSEEING THE MANAGEMENT OF IMPACTS     | 5.3.                                       |
| GRI 2_General disclosures 2021           | 2-13 DELEGATION OF RESPONSIBILITY FOR MANAGING IMPACTS                               | 3.4.- 4.3.- 5.4.-5.5.                      |
| GRI 2_General disclosures 2021           | 2 -14 ROLE OF THE HIGHEST GOVERNANCE BODY IN SUSTAINABILITY REPORTING                | 5.3.                                       |
| GRI 2_General disclosures 2021           | 2-22 STATEMENT ON SUSTAINABLE DEVELOPMENT STRATEGY                                   | Governance Letter                          |
| GRI 2_General disclosures 2021           | 2-23 POLICY COMMITMENTS<br>2-24 VALUES, PRINCIPLES, STANDARDS AND NORMS OF BEHAVIOUR | 3.4.- 4.3.-<br>5.4.-5.5.                   |
| GRI 2_General disclosures 2021           | 2-26 MECHANISMS FOR SEEKING ADVICE AND RAISING CONCERNS                              | 5.4.                                       |
| GRI 2_General disclosures 2021           | 2-27 COMPLIANCE WITH LAWS AND REGULATIONS  | 5.6.                                       |
| GRI 2_General disclosures 2021           | 2 -28 MEMBERSHIP OF ASSOCIATIONS   | 10.1.                                      |
| GRI 2_General disclosures 2021           | 2-29 APPROACH TO STAKEHOLDER ENGAGEMENT  | 4.1. – 4.2.                                |
| GRI 2_General disclosures 2021           | 2-30 COLLECTIVE BARGAINING AGREEMENTS  | 9.1. - 9.3.                                |
| Material topics                          |  |  |
| GRI 3: 2021 material topics              | 3-1 PROCESS OF DETERMINING MATERIAL TOPICS   | 4.1.                                       |
| GRI 3: 2021 material topics              | 3-2 LIST OF MATERIAL TOPICS  | 4.2. – 4.3.                                |
| GRI 3 - Material topics - 2021           | 3.3 MANAGEMENT OF MATERIAL TOPICS 3.6.   | - 4.4. – 5.7. – 6. –<br>7. – 8. – 9. – 10. |
| Economic performance                     |  |  |
| GRI 201_Economic performance - 2016      | 201-1 DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED                                | 3.5.                                       |
| GRI 201_Economic performance - 2016      | 202-2 PERCENTAGE OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY                 | 5.1.                                       |
| Indirect economic impacts                |  |  |
| GRI 203_Indirect economic impacts - 2016 | 203-2 SIGNIFICANT INDIRECT ECONOMIC IMPACTS  | 9.1. - 9.3.                                |
| Procurement practices                    |  |  |
| GRI 204_Procurement practices - 2016     | 204-1 PROPORTION OF SPENDING ON LOCAL SUPPLIERS                                      | 9.1. - 9.3.                                |



|  | GRI 1 USED   | GRI 1 - FOUNDATION 2021 |
|--|--|-------------------------|
| GRI UNIVERSAL STANDARD                           | DISCLOSURE   | Paragraph               |
| Materials  |  |                         |
| GRI 301_ Materials - 2016                        | 301-1 MATERIALS USED BY WEIGHT OR VOLUME   | 7.1.                    |
| GRI 301_ Materials - 2016                        | 301-2 RECYCLED INPUT MATERIALS USED  | 7.1.                    |
| Energy   |  |                         |
| GRI 302_Energy - 2016                            | 302-1 ENERGY CONSUMPTION WITHIN THE ORGANISATION   | 8.1.                    |
| GRI 302_Energy - 2016                            | 302-3 ENERGY INTENSITY   | 8.1.                    |
| GRI 302_Energy - 2016                            | 302-4 REDUCTION OF ENERGY CONSUMPTION  | 8.1.                    |
| Emissions  |  |                         |
| GRI 305_Emissions - 2016                         | 305-1 DIRECT (SCOPE 1) GHG EMISSIONS   | 8.2.                    |
| GRI 305_Emissions - 2016                         | 305-2 ENERGY INDIRECT (SCOPE 2) GHG EMISSIONS  | 8.2.                    |
| GRI 305_Emissions - 2016                         | 305-3 OTHER INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 3)                                    | 8.2.                    |
| Waste  |  |                         |
| GRI 306_Waste 2020                               | 306-3 WASTE GENERATED  | 8.3.                    |
| GRI 306_Waste 2020                               | 306-4 WASTE DIVERTED FROM DISPOSAL   | 8.3.                    |
| GRI 306_Waste 2020                               | 306-5 WASTE DIRECTED TO DISPOSAL   | 8.3.                    |
| Emploment  |  |                         |
| GRI 401_Employment - 2016                        | 401-1 NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER   | 9.1                     |
| GRI 401_Employment - 2016                        | 401-3 PARENTAL LEAVE   | 9.1                     |
| Occupational health and safety                   |  |                         |
| GRI 403_Occupational health and safety - 2018    | 403-1 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM   | 3.4.- 9.3.              |
| GRI 403_Occupational health and safety - 2018    | 403-5 WORKER TRAINING ON OCCUPATIONAL HEALTH AND SAFETY  | 9.2.                    |
| GRI 403_Occupational health and safety - 2018    | 403-8 WORKERS COVERED BY AN OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM                     | 9.3.                    |
| GRI 403_Occupational health and safety - 2018    | 403-9 WORK-RELATED INJURIES  | 9.3.                    |
| GRI 403_Occupational health and safety - 2018    | 403-10 WORK-RELATED ILL HEALTH   | 9.3.                    |
| Training and education                           |  |                         |
| GRI 404_Training and education - 2016            | 404-1 AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE  | 9.2.                    |
| Diversity and equal opportunities                |  |                         |
| GRI 405_Diversity and equal opportunities - 2016 | 405-1 DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES   | 5.1. - 9.1.             |
| GRI 413_Local communities - 2016                 | 413-1 OPERATIONS WITH LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS, AND DEVELOPMENT PROGRAMMES | 10.1.                   |



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