Sustainability Report

ThermoKey®

Heat Exchange Solutions

Index

Letter from the Governance team

Dear Stakeholders,

I am delighted to bring you the ThermoKey Sustainability Report, which represents an important step forward in our mission to make the world of HVAC/R even more sustainable.

Giuseppe Visentini
Chief Executive Officer
ThermoKey Spa

2022 was a particularly tough year, due to the global situation which has also impacted our industry. But thanks to our focus on innovation and progress, we nevertheless managed to achieve our best-ever result, surpassing the €46 million mark. We are proud to be seen as a key player in the refrigeration and air conditioning sector, but we believe that our real challenge lies in positively influencing people's lives by providing them with increasingly sustainable solutions. We do this by pursuing a double objective: on the one hand guaranteeing a better quality of life for all, by providing high-quality air conditioning and refrigeration in order to improve food storage, reduce waste and improve the thermal comfort of our living spaces, including shopping centres, hospitals and theatres. On the other hand, we aim to meet the needs of growing industries such as plastics moulding, pumping systems, energy generation and transfer or the cooling of data centres, which are increasingly becoming essential for the development of remote working systems, content streaming and AI applications – all without compromising our natural resources.

For over 30 years, we have used our expertise and knowledge of the market to innovate our products and make them increasingly energy-efficient, while reducing emissions and optimising the use of resources. This allows us to keep pace with the evolving marketplace and act as drivers for change, to offer our customers a competitive edge when it comes to performance.

So far, we have reached important goals, including the development of TKMicro, the "greenest" microchannel technology in the refrigeration industry, which uses 100% recyclable aluminium and can reduce emissions thanks to a refrigerant load which can be as much as 65% lower. We also promote the use of green refrigeration fluids such as ammonia, propane, CO2 and water, which are compatible with many of our solutions. We are attentive to the finite resources of our planet, which is why we fight the wastage of water by using closed-circuit cooling processes that limit the use of hydro resources.

We tackle energy wastage by offering optimised free cooling or heat recovery through our recently-patented Multisystem Dual Flow system, which reuses condensation heat.

In terms of our production processes, we have embarked on a process of reducing our environmental footprint by gradually replacing our lighting system in a space of over 30,000 m², and transitioning to LED technology. We have also installed a 0.5 MW solar power system to halve the amount of electricity consumed from non-renewable sources.

A core element of the ThermoKey ecosystem is our supply chain. All our suppliers are based in Europe, which means we can provide our customers with products made from materials which are certified, tested and of excellent quality.

We also want to make a positive impact when it comes to our local communities and workforce, by actively seeking out new ways of protecting their health. Working with universities and research institutions, we offer the new generations the opportunity to grow, train up for the new professions, and become integrated into the world of work.

Our commitment to sustainability is a core value of ThermoKey and is a strategic priority for our future. In this, our first sustainability report, we aim to outline the story of our company's success so far, and set guidelines that will determine our future activities and investments while assuring a positive impact on environmental, social and governance issues.

Giuseppe Visentini

1

Profile and identity of ThermoKey: our story
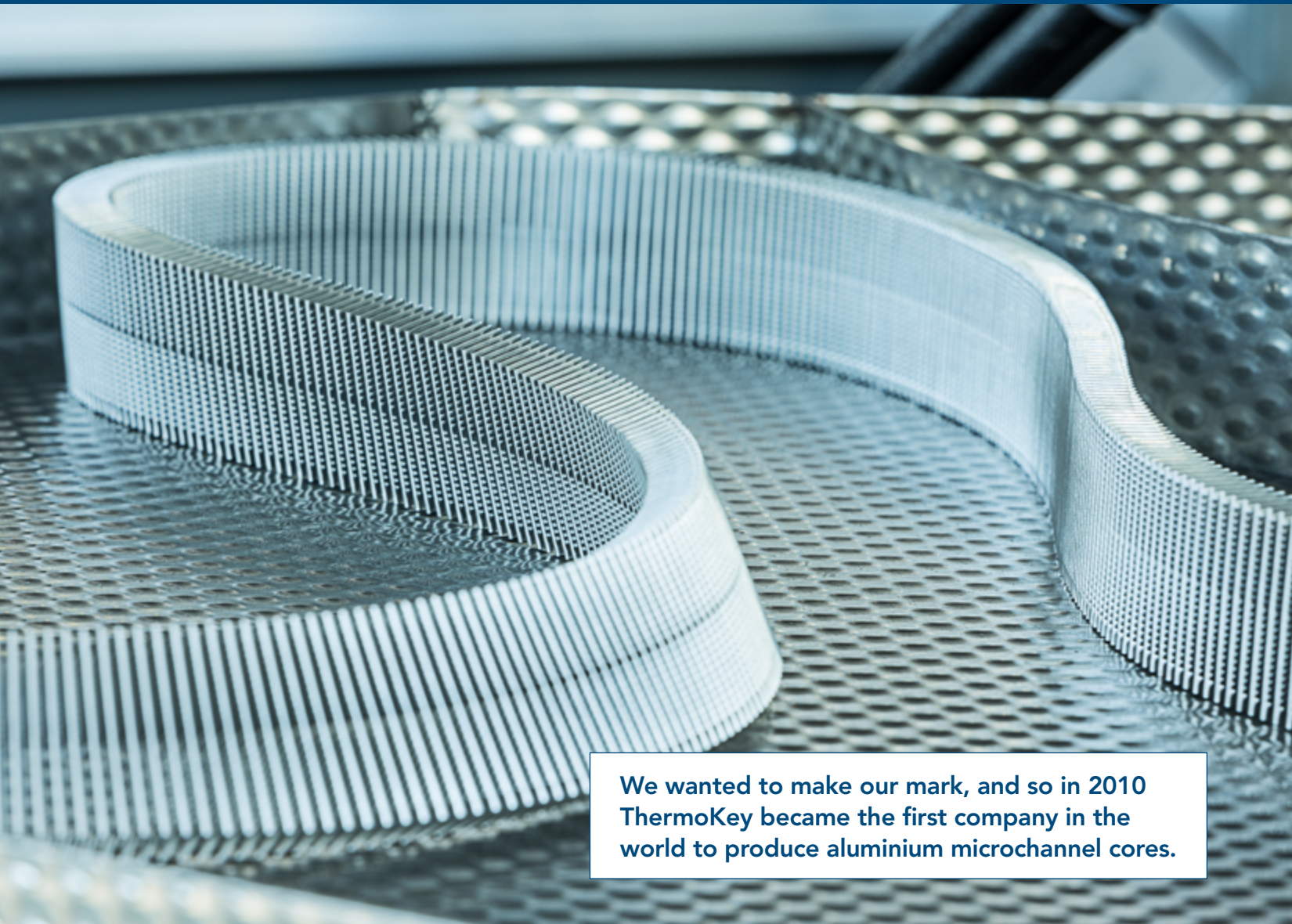
We wanted to make our mark, and so in 2010 ThermoKey became the first company in the world to produce aluminium microchannel cores.

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.

REFRIGERAZIONE   ENERGY AND PROCESS COOLING   HVAC   OEM   DATA CENTRE

Our *mission* is all about the desire to design, build, produce and retail leading-edge heat exchange solutions for commercial and industrial use, which take account of customers' specific needs.

Over the years, we have held true to this objective 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 tube coils using TIG orbital welding technology.

ThermoKey's growth then continued with the foundation of its German subsidiary ThermoKey Deutschland GmbH, in 2005. In the same year, we opened branch offices in Poland and France to meet the demand from an ever-growing market which is becoming increasingly exacting in terms of performance and volume. Having a local base also allows us to monitor our growing presence in new geographical markets.

2010

In 2010, ThermoKey became the first company in the world to use a controlled-atmosphere brazing process for microchannel heat exchangers. We have developed "TKMicro", our own in-house thermodynamic calculation software for microchannel cores, making us the first producers in the world to make microchannel cores from aluminium - an easy to recycle, lightweight and more convenient material – of up to 6 m in length. This innovation, together with our investment in cutting-edge machinery, has positioned us among the top players in the sector.

2013

In 2013, with the arrival of new investors and a new Governance team, we introduced a growth plan by developing "green" products: our actions, which even ten years ago were always focused on sustainability, are now increasingly focused on products that are not only guaranteed to be reliable but will also reduce consumption.

2014

The following year saw the launch of the TK Micro 25, a microchannel core which is an efficient compromise between high-level performance and light weight. We have also launched an innovative hybrid cooling system known as the WFS (wet fin system). As it can operate at low pressure (2-3 bar) for an extremely high number of hours per year (up to 900), the WFS offers full flexibility, allowing the user to choose whether to favour the consumption of water, or of electricity. Thanks to our consolidated know-how in the production of microchannel cores, over the years we have managed to guarantee an increasingly high performance for our customers, both in terms of regularity and long-term performance.

2016

In 2016 we developed the innovative TKMicroH2O, a water microchannel core which is lighter, smaller and more robust than the traditional 'tube&fin' core. We also introduced a new cooling system known as the Evaporative Panel System (EPS).

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 new Cubic unit 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 technology uses a system based on a closed thermodynamic cycle, recovering part of the waste heat from industrial processes by transforming high temperatures into electricity. The economic advantages for companies investing in ORC systems come from the reduced consumption of electricity – which is produced from the transformation of waste heat – without any

additional use of the primary energy. An evolution of this technology is "air condensed ORC", which integrates a remote condenser at the end of the ORC cycle, allowing the dispersion of heat.

2022

Another technology recently patented by ThermoKey is the Multisystem Dual Flow, a solution designed to counter global warming. At present, in Europe alone our heat emissions each year amount to 2860 TWh each year, which is almost the same as the quantity needed for domestic heating and sanitary water. Our condensers and MSDF cooler systems not only provide "free" hot water—they can also improve the performance of heat exchangers by as much as 50% in added performance, reducing dimensions by up to 32% and reducing fan noise by up to 10dB(A). We presented this innovative technology at Chillventa 2022 and received a high level of interest from the market. Finally, in 2022 we presented the gas cooler, dedicated to the growing market demand for refrigeration aimed at reducing the greenhouse effect.

2023

Currently, as a result of the innovations mentioned before, our range of heat exchangers consists of finned coils, unit coolers, liquid coolers and air-cooled condensers with round tube technology and aluminum microchannel.

All products are designed, developed and manufactured in-house, in cooperation with international certification bodies.

2

Activities

2.1 Group structure

Our single-member company ThermoKey S.p.A. is a commercial and manufacturing business based in Rivarotta di Rivignano Teor (Udine), which is also home to our headquarters, although we are an international group that is growing all the time.

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 America.
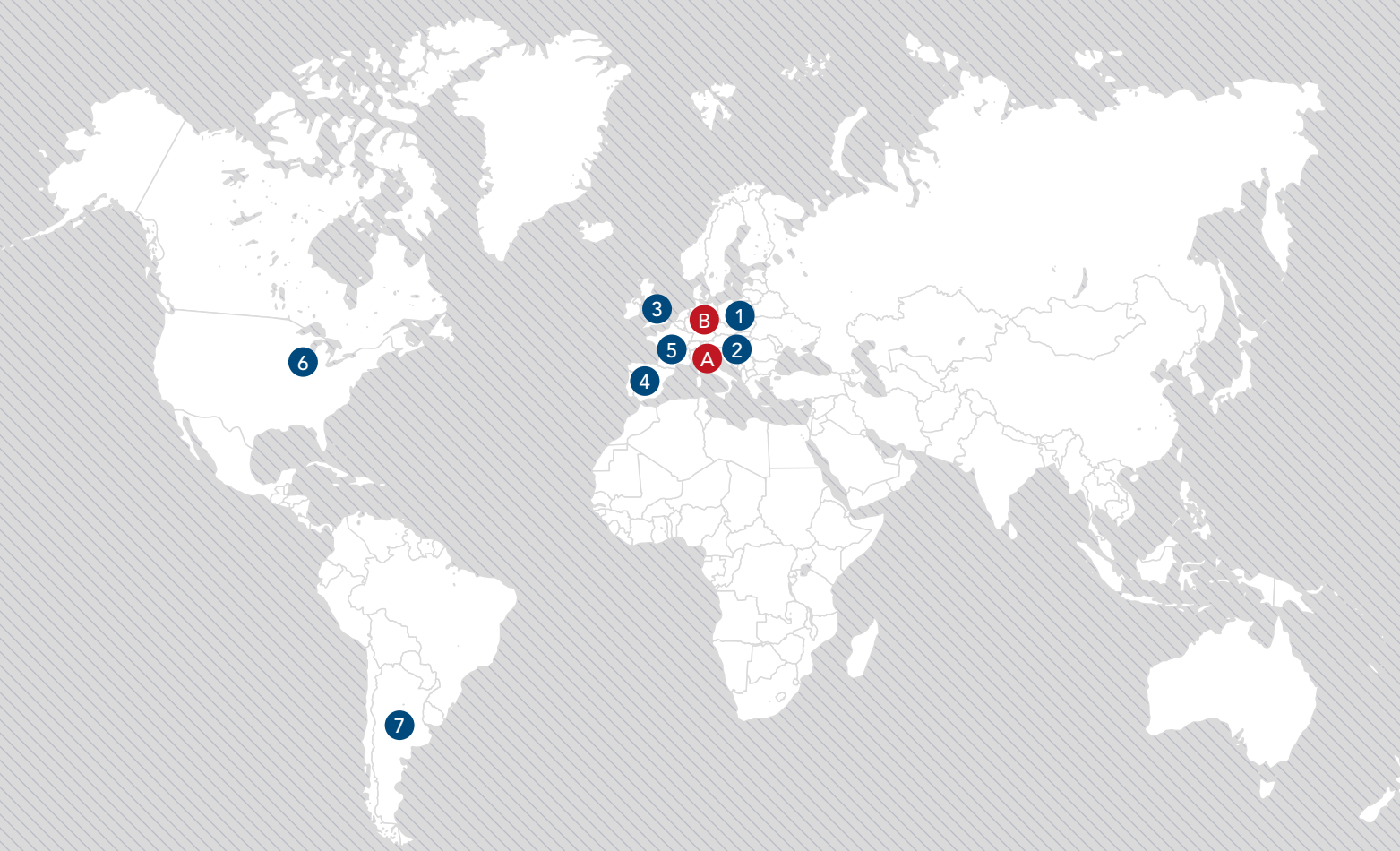
Agencies and distributors

1	Warsaw		6	Chicago
2	Slovenia, Croatia, Serbia, Bosnia Herzegovina, Montenegro, Kosovo, Bulgaria and Albania		7	Argentina
3	United Kingdom			
4	Spain and Portugal			
5	France			

Branches

A	Headquarters in Rivarotta di Rivignano Teor
B	German branch: ThermoKey Deutschland GmbH

2.2 Business sectors:
our role in the production chain

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' specifications: dry coolers, high-efficiency air condensers, industrial unit coolers, finned stainless steel heat exchangers and Cu/Al microchannel technology. Our main areas of activity are indicated below.

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

Refrigeration

In the refrigeration sector, we develop applications for the food supply chain, from conservation, processing and transformation through to the transport and controlled-temperature storage of produce such as fruit, vegetables, meat and fish from the point of production through to marketing and the point of sale at large supermarket chains and food stores.

Cooling of production processes

We design and produce special applications for the cooling of any production process, in any environment: from generators located in the middle of deserts to compressors used in pumping stations on offshore platforms, from auxiliary systems and gas turbines to the ladle furnace of a steelworks— a sector also known as energy & process cooling.

Air conditioning

The air conditioning segment covers a variety of appliances designed for different types of public space, including hotels, banks, universities, hospitals, shopping centres and theatres. We also produce components used in the cooling of servers and large data centres, in order to control temperature, humidity and air purity. ThermoKey is the only company in Europe to make machines cooled with aluminium microchannel cores, which guarantee a hard-wearing, lightweight and high-performing product.

OEM

Thanks to our experience and technical know-how, since 1991 we have produced heat exchangers for global manufacturers of chillers and special units. For the OEMs, as well as heat exchangers we also supply dry coolers, condensers and chiller units.

2.3 Our production sites

Our production operations are based in three adjacent industrial plants, giving us a total indoor floor space of 32,000 m² covering more than 8 hectares of proprietary land and employing more than 220 people.

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)
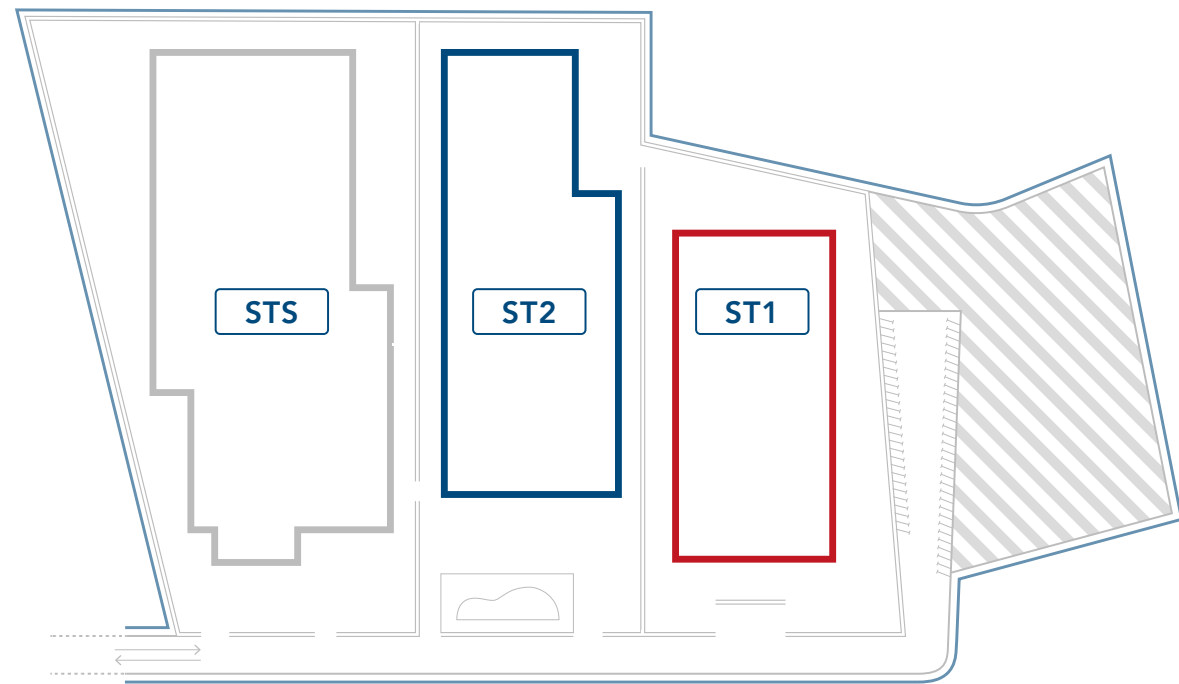
The first plant (STS) makes finned cores – these are the finished units sold to the end customer without having to build a ventilated machine, and the ventilated machines used in the conditioning and cooling of production processes. This plant is also the one that performs maintenance of equipment and

systems, and is the home of the administration and technical offices.

At the second plant (ST2), we assemble the microchannel exchangers and carry out the thermal degreasing, brazing, assembly of connections, testing and fitting of fairing components and

electrical cabling. Finally, this plant also contains the product packaging line.

The third plant (ST1) houses the production units which produce finned cores and the ventilated machines for refrigeration.

2.4 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 has always been a fundamentally important element at ThermoKey. Quality is a daily commitment and the constant objective by which we measure our business. For this reason, we have applied for and obtained UNI EN ISO 9001 certification.

Environmental management system

Our company has always been committed to the environment and to steadily improving its performance in this area. ThermoKey relies on ISO 14001:2015 certification in order to create an environmental management system made up of specific environmental performance targets.

HS management system

ISO 45001 conformity certification is the way we communicate to our stakeholders that people's health and the prevention of workplace risks are essential values in our corporate culture.

TÜV SÜD certifications

Our company has obtained various certifications from TÜV SÜD, an independent certification, inspection, testing, trial and training body. We currently have the following certifications:

▪ Certification for turbo-line condenser;
▪ Safety certification for units fitted with the adiabatic "Air Fresh System" (specifically confirming the absence of Legionella risks);
▪ Certification for industrial unit coolers;
▪ 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 allows us to confirm that our products meet the safety requirements in force in Canada and the USA.

2.5 Building and distributing economic value

For our Company, generating value means adopting measures and behaviours that allow us to operate successfully in our target markets. Additionally, meeting the needs of the end customer has always been our ultimate objective at ThermoKey.

Creating value involves preparing a strategic plan to offer customers a range of innovative products, a high level of service and a competitive edge compared to the market leaders, partly thanks to our consolidated presence on the international markets.

Despite the persistence of the Covid-19 pandemic, by carefully monitoring our workplace safety regulations and key products, the Company did not suffer particularly adverse impacts. In 2022, revenues actually increased thanks to the upturn in volumes produced in the data centre cooling, food refrigeration and pharmaceutical segments, as well as an increase in prices due to the rise in the cost of materials used in production. The value of production has also increased compared to 2021 and we have managed to improve our net financial position.

In 2022, despite the shortage of electrical components, the war in Ukraine, the resulting uncertainty about the Russian, Ukrainian and Belarusian markets and the repercussions of the conflict on the global economy in general, ThermoKey has demonstrated its resilience, mainly thanks to its broad product portfolio and diverse outlet markets.

Since 2014 we have grown steadily, as can be seen from the following graph:

TURNOVER PLAN

	70,000,000 €
	60,000,000 €
	50,000,000 €
	40,000,000 €
	30,000,000 €
	20,000,000 €
	10,000,000 €
	0 €

2014   2015   2016   2017   2018   2019   2020   2021   2022   2023   2024   2025   2026
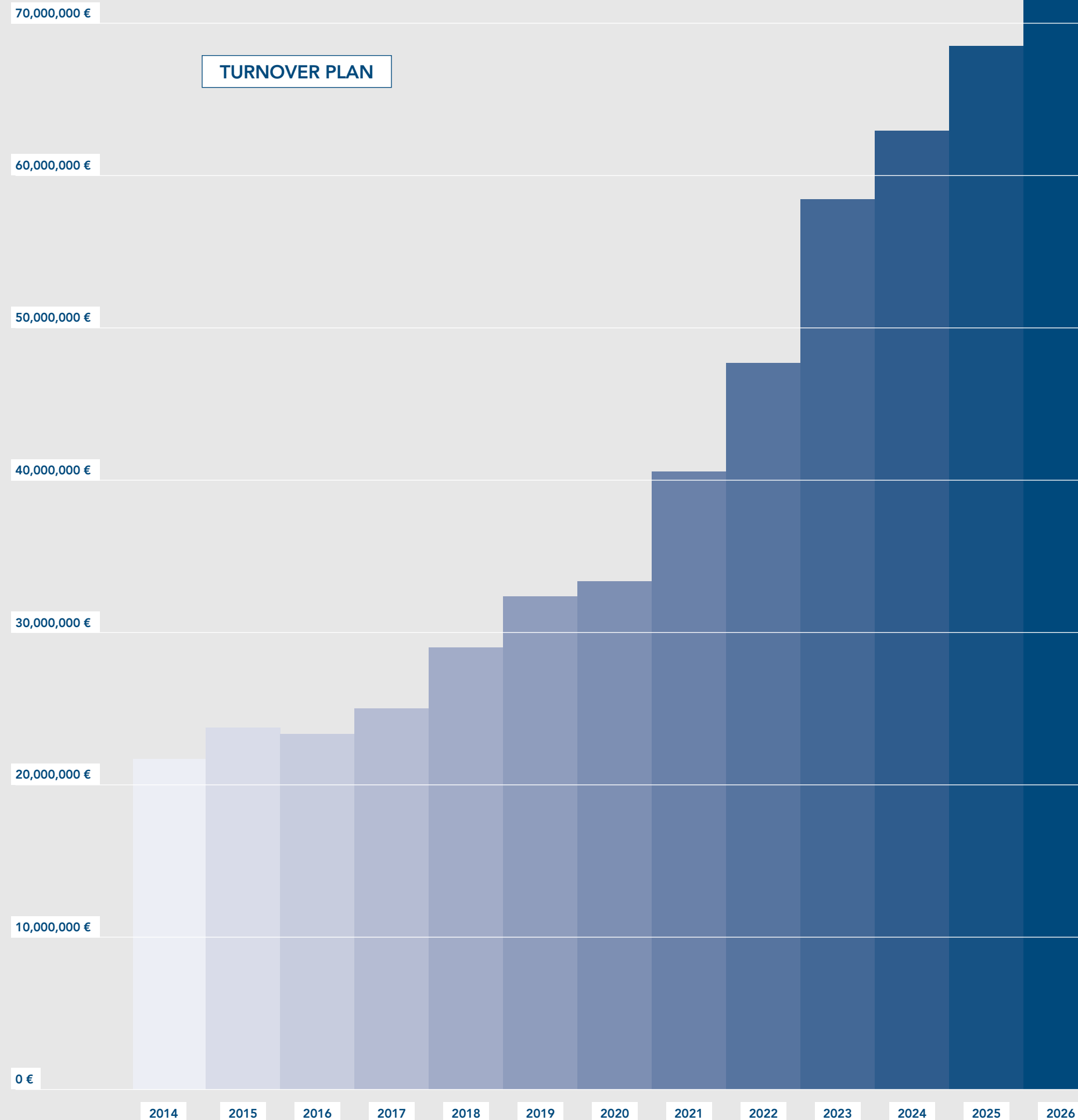
People are the key to the success of ThermoKey, which is why the largest share of Value Added produced in 2022 (82%) was used to support our internal and external personnel; no dividend payouts were made.

We also support our trade unions by paying donations.

The graph below shows the distribution among internal and external stakeholders of the Global Value Added generated in 2022, equal to €11.3 million:

11.3 MLN

DISTRIBUTION OF GLOBAL VALUE ADDED

Donations
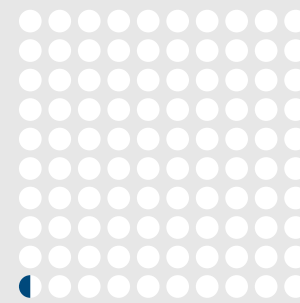
0.30%

Remuneration of local public administration
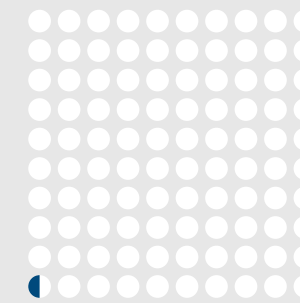
0.63%

Remuneration of national public administration
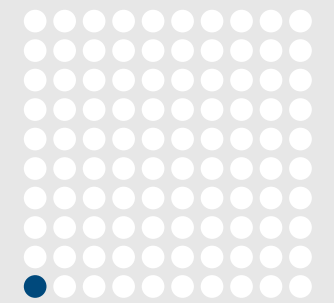
0.91%

Company remuneration
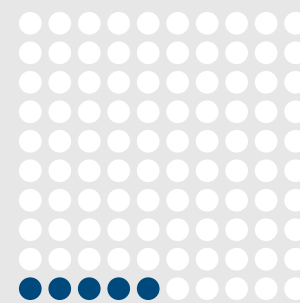
4.91%

Remuneration of loan capital
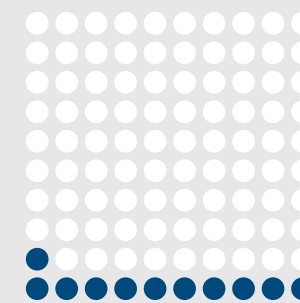
10.95%

Remuneration of personnel
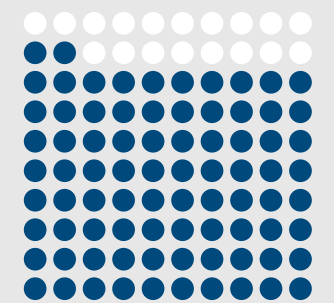
82.28%

2.6 Innovation and the digital transformation

We believe that digital is a facilitating factor in the stable management of our organisation.

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

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

An Industrial Internet Of Things (IIOT) platform has been introduced in order to interconnect 16 production machines, including punch presses, expanders, welding and bending machines, the machining centres, electrical test cabins, workstations and manifold washer. This allows us to send the production batches directly from our ERP system and to receive and measure the real machine times, parts, non-conformities and test certificates, which are now available directly from a company document system.

The IIOT solution also allows us to record the energy used by the machine fleet, in the hope that we will shortly be able to analyse and reduce the level of consumption. Since starting to consolidate and extend this horizontal

integration, we have also taken various steps towards the vertical integration of the 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.

The Company has undertaken a number of initiatives aimed at continuous improvement, involving a number of interfunctional teams: these range from clustering

3 INNOVATION LINES

Product

- PATENTS
- CUSTOM SOLUTIONS
- CERTIFICATIONS

Process

- FINAL ACCOUNTING OF ACTUAL PRODUCTION
- ANALYSIS OF MARGINS AND VARIANTS
- ANALYSIS AND OPTIMISATION OF CONSUMPTION
- BOM/CYCLES PLANNING
- INVENTORY

Digital

- L4.0 CONNECTED MACHINES
- MES AND PRODUCTION DECLARATION
- PRODUCT CONFIGURATORS
- MATERIALS AND ORDER TRACKING
- ANALYSIS OF MARGINS AND VARIANTS
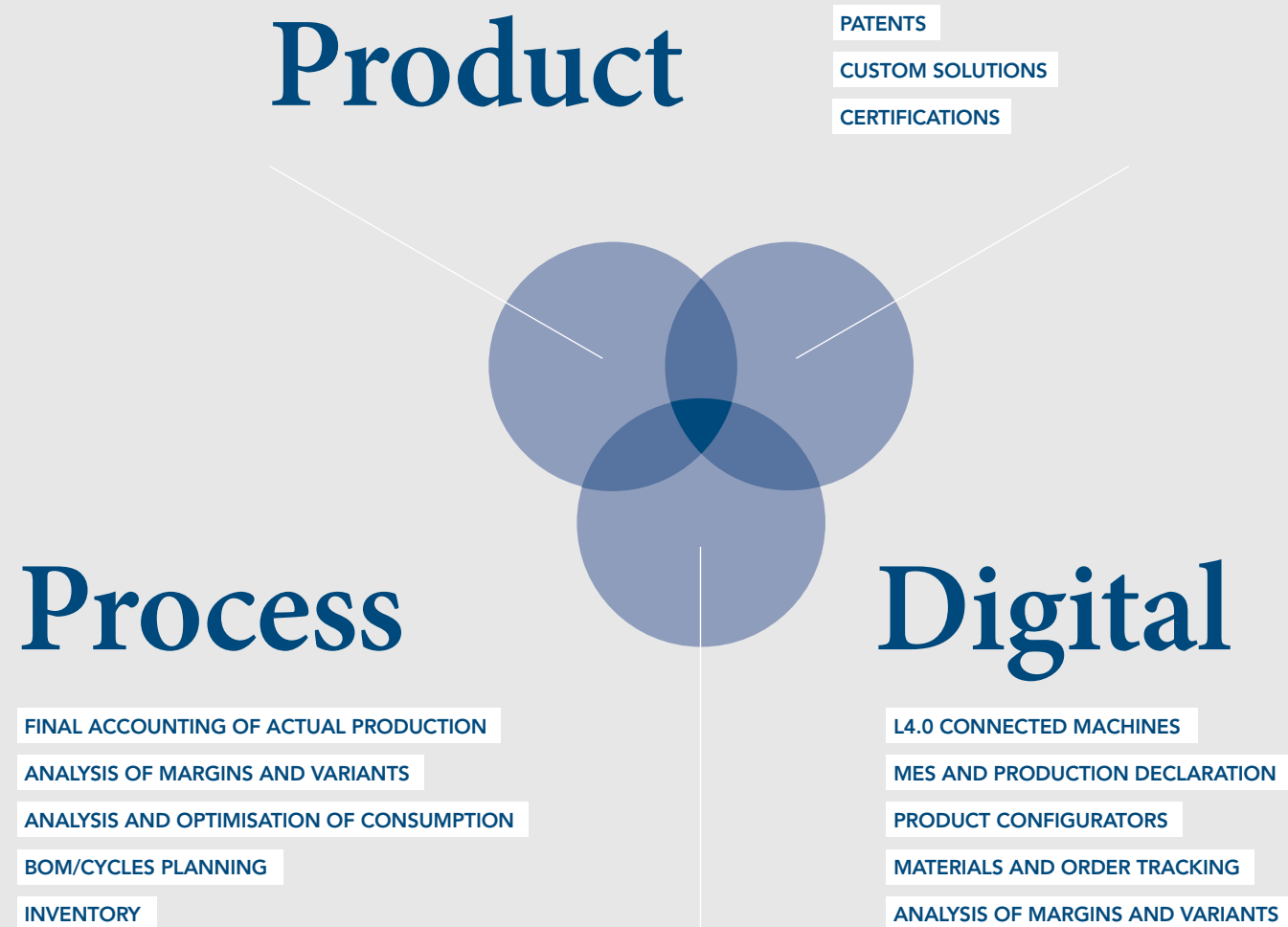
and cleaning all the technical product data to the rating of company performance in terms of punctuality, cost measurement, the introduction of a suite of controls to flag up irregularities and avoid transferring errors into the next stage of the process, from automatic checks on stock breakage through to the digital management of the production programme.

The objective is to understand, starting with a multifunctional process-based approach, the issues involved in exchanging information and transferring data from the points of contact with our customers.
In addition to these continuous improvement initiatives, we have also launched two impactful projects:
  on the Operations side, work is underway to design a suite of digital solutions (ERP/MES/BI) in order to manage the process from the release of the production programme through to the declaration of phases/times/ parts processed, re-processing, wastage, swarf and process measurements, including the physical movement of materials and an analysis of the costs of production. This design planning stage will also include a definition of the metrics used to measure the process, to make sure that the upgrade is more than just a 'statement of intent'.
  In the area of customer service, we have developed an advanced product selection portal, which uses a series of thermodynamic models developed using neural networks.

As with the factory interconnection project, these digital projects are not only technological and innovative, but are also important in terms of integration and collaboration by interdepartmental teams.

The first project involved Production, Programming, Logistics, Operations Control, the Technical Offices and the IT/Digital teams.

The second project is overseen directly by the Technical Office and involves a collaboration between universities and the digital players.

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 (whether they be end-users, tech experts or decision-makers) has, when it comes to using technology efficiently and sustainably.

Affirming your green credentials takes more than simply working for a company that produces sustainable solutions. All of us need to adapt our behaviours in every aspect of sustainability: 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. At ThermoKey, we believe this requires an approach to managing digitalisation projects which goes beyond the technical aspects of implementing the solution and brings onboard other areas of the organisation who can be involved right from the design stage.

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 the needs of the user. For example, the design of the MES is discussed directly with the factory operatives, with support from digital experts, both in-house and external to the organisation.
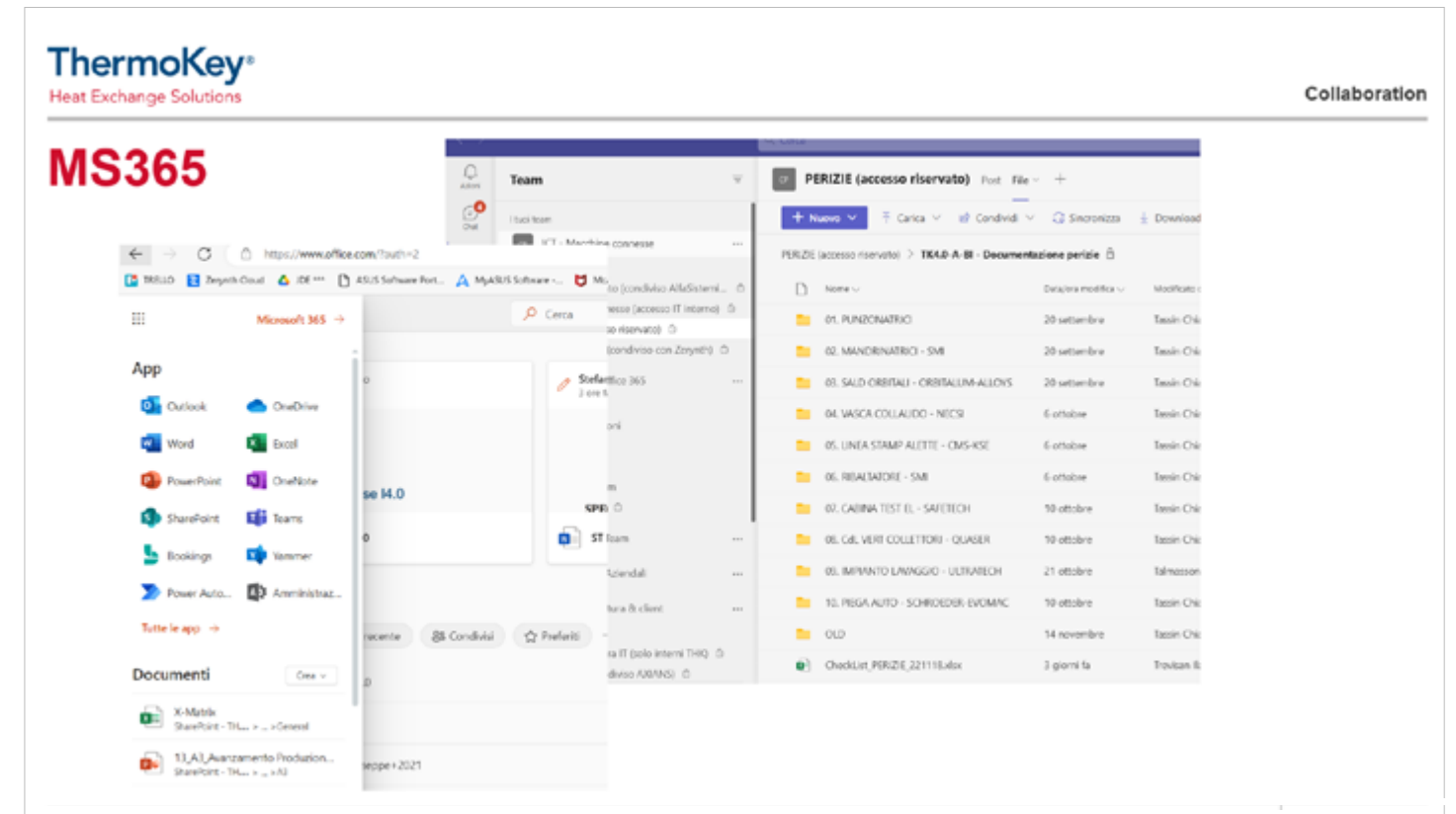
Microsoft Office 365 platform to increase collaboration among personnel

In order to increase collaboration and staff engagement, we have also introduced Microsoft Office 365, to facilitate the exchange of information for personnel working face-to-face and also remotely.

We see this pathway as a strategic tool that will increase staff retention and make us more attractive as an employer. 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 should consider a range of technologies, starting with the needs of stakeholders. The biggest commitment must be to understand how technology can be helpful to humans, and not the other way round.
We are witnessing a change in the way that IT is perceived, although this new avenue is not yet fully open.

Our in-house digital team has also been strengthened, and 2022 saw the arrival of a new CIO with experience in this sector.

Digital sustainability is a process of cultural change which needs to be disseminated across the organisation, starting with its people. It cannot be relegated to a single department, but needs to become part of the company-wide culture if it is to bring all the benefits that we expect to gain from it. In order for this to happen, the IT area needs to partner up with the other business units. This is why the IT office has been included in the Company Management since 2022.

3

Ethics and integrity: our Governance structure

Through our organisational and governance structure, we are now able to constantly monitor our operational risks and steadily improve the efficiency of our operations.

3.1 Structure

Our *governance structure* is of the traditional type and is designed to efficiently support the objectives of responsible economic growth which we have set for ourselves, not only for the near future but also over the longer term.

Our organisation and management structure is the traditional pyramid shape: at the top is the management 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 can take any action considered necessary or useful to achieve the company object, excluding only those matters reserved by law for the Shareholders' Meeting. The Board of Directors, which does not have board committees, currently has four members:

Our model of governance also includes a supervisory body: the Board of Statutory Auditors. Formed of three standing auditors and two substitutes, its task is to oversee compliance with the law and the company bylaws 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.

BOARD OF DIRECTORS	
Giuseppe Patriarca *President*	
Giorgio Visentini *Vice President and CEO*	
Vincenzo Alberto Craici *Director*	
Giuseppe Visentini *Managing Director*	

3.2 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:

The Board of Directors is responsible for making decisions on environmental, social and governance issues.

CHIEF EXECUTIVE OFFICER	CEO/MANAGING DIRECTOR
Giorgio Visentini	Giuseppe Visentini
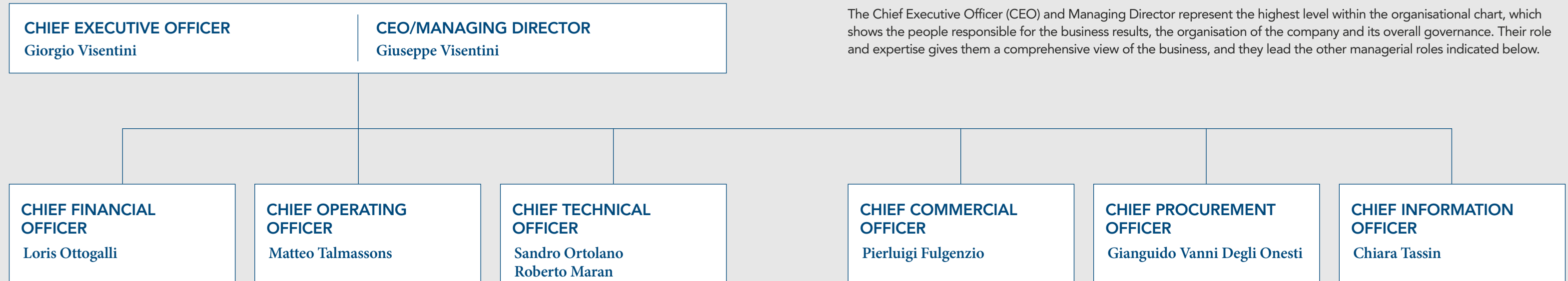
The Chief Executive Officer (CEO) and Managing Director represent the highest level within the organisational chart, which shows the people responsible for the business results, the organisation of the company and its overall governance. Their role and expertise gives them a comprehensive view of the business, and they lead the other managerial roles indicated below.

CHIEF FINANCIAL OFFICER	CHIEF OPERATING OFFICER	CHIEF TECHNICAL OFFICER	CHIEF COMMERCIAL OFFICER	CHIEF PROCUREMENT OFFICER	CHIEF INFORMATION OFFICER
Loris Ottogalli	Matteo Talmassons	Sandro Ortolano Roberto Maran	Pierluigi Fulgenzio	Gianguido Vanni Degli Onesti	Chiara Tassin

The CFO is responsible for managing the sources of finance for the Company: the activities associated with this role include monitoring cash flow, financial planning, sourcing lenders and lines of credit and negotiating the terms of finance. The CFO is responsible for ensuring the financial equilibrium of the Company.

The COO is responsible for managing the 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

The Chief Technical Officers (CTO) lead the technical teams and the technological strategy, with the goal of enhancing the end products and developing new, innovative ones.

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

The CPO is the person responsible for procurement, drawing up the purchasing budget based on the Company's strategic needs and priorities.

The CIO has a decision-making role with regard to the strategies connected to the digital transformation of our Company and its IT services.

3.3 Organisation, Management and Control Model

ThermoKey has drafted and adopted an Organisation, Management and Control Model in accordance with Italian Legislative Decree 231/2001 (as amended) and in line with the contents of the Confindustria Guidelines, relevant case law and legal theory, as well as the long-established principles of 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 external contractors – 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 revoked by Board of Directors, but only for good cause.

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

The Chairman of the Board of Directors can make any minor additions or formal amendments to the Model, as necessary, as well as updates which may be required due to changes in the law.

Finally, our Company has adopted a specific whistleblowing procedure to assist its staff and anyone else who wishes 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.

3.4 Code of Ethics and Behaviour

ThermoKey also 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 contractors, 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.

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

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

7. 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.

8. Responsible use of resources
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.

9. Respect for the individual
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.

Our Code of Ethics is binding on our shareholders, the members of company bodies, staff (whether shareholders or not) including management roles, 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.

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 any director, shareholding or non-shareholding employee and worker, or anyone else acting on our Company's behalf, is required to know the provisions of the Code of Ethics.

The company bodies, aware of their responsibilities, are required not only to comply with current laws, regulations, the company bylaws and policies but also to respect the following principles, as set out in the Code of Ethics:
▪ 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 company bodies;
▪ Evaluate any conflict of interest or incompatibility with any directorship, role or position, whether external or internal to the Company, and refrain from acting in any conflict-of-interest situation within the context of their work;
▪ 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;
▪ Not buy or subscribe to shares or reserves which cannot, by law, be distributed;
▪ Not allow any reduction in share capital, nor carry out any merger or demerger with other companies if it 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 staff, contractors or anyone else working on behalf of ThermoKey – disciplinary measures will be taken to protect the Company's interests, compatibly with the applicable laws. This may also lead to termination of contract and compensation for damages.

During 2020 and 2021, there were no cases of corruption and/or breach of the Code of Ethics.

3.5 3.5 Legal and regulatory compliance

During the 2021 and 2022 financial years there were no significant cases of breaches of laws or regulations.

BREACHES OF LAWS AND REGULATIONS

2021 → 0

2022 → 0

The Company has operated in accordance with all provisions \of law in previous years, and has not committed any significant breaches or irregularities.
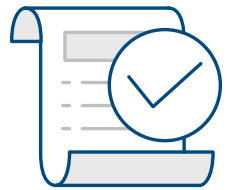
4

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:

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

We are Europe's top producers of cores and machines ventilated 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".

'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.

REDUCED USE OF REFRIGERANTS

-65%

The expectations and interests of our stakeholders are of paramount importance at ThermoKey, both in the development of new solutions and the sharing of our guiding principles.

2 Process-cooling solutions to reduce water wastage

Climate change and inefficient use of the available water supply are just some of the reasons why the planet is short of water. In our own small way, we want to combat water wastage by using closed-circuit process cooling solutions that will considerably reduce the use of water, hand-in-hand with the responsible use of hydro resources.

3 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.

4 Improving quality of life

Our HVAC products can help to improve the end consumer's quality of life, as they create environments with efficient thermal comfort and also optimise the energy savings.

5 Growing consumption of energy by data centres

We offer optimal 'free cooling' heat disposal solutions, which substantially reduce the energy cost of cooling.
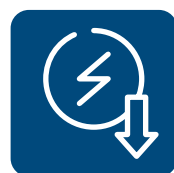
4.1 Identifying and engaging our stakeholders

We have produced this, our first sustainability report, with the desire to give all stakeholders a detailed and qualitatively significant analysis of our process of value creation. We believe that this document is more than just a collection of data – it can be a guide that will help our stakeholders to participate and allows us to share with them the guiding principles of 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	Wellbeing, health and safety.	Trade union representation TK News Communication with managers
Suppliers	Ethics and transparency.	Communication Shared objectives
Customers	Responsible, transparent supply chain with a small environmental footprint Innovative products.	TK Academy Direct communication Periodic meetings
Local communities	Small environmental footprint. Jobs.	Debate with public institutions
Financial institutions	Transparency and disclosure of the Company's growth plans.	Direct debate ESG report
Shareholders	Legal compliance. Ethics and integrity. Developing a sustainable product. Staff well-being.	BoD Periodic alignment meetings

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 these against the priorities of ThermoKey and its 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 identification of key issues for our Company is the result of a preliminary 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. During 2023 we expect to launch a specific survey on the material topics we selected to prepare this sustainability report, as confirmation of a constant process of improvement, evidence of which will be given in future reports. 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 eco-sustainability of the production chain, and worker health and wellbeing were also placed in the top part of the graph, in the area of high importance for both sides.

This result points to the high level of commitment and interest in topics which have always been distinctive traits of ThermoKey.

KEY ISSUE

Environmental   Social   Governance

Very important

IMPORTANCE FOR STAKEHOLDERS

Ethics and integrity in business

Wellbeing, health and safety of personnel

Use of sustainable materials

Diversity agenda

Responsible supply chain

Staff training and development

Developing a sustainable product

Supporting and developing the local community

Reducing energy consumption

Innovation and the digital transformation

Reducing emissions

Waste management

Important   IMPORTANCE FOR THERMOKEY   Very important

4.3 SDGs and material topics

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 in order to guarantee resilience for our business over the long term.

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 Member Countries of the UN. The 2030 Agenda consists of 17 Sustainable Development Goals (SDGs) and 169 targets.

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 reconciliation table, which highlights how the material topics considered significant for our Company will be reflected in the SDGs we intend to reach. 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.

7 CLEAN, ACCESSIBLE ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 BUSINESS, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 FIGHTING CLIMATE CHANGE

15 LIFE ON EARTH

The 6 SDGs identified by ThermoKey are listed above

Material topic	SDGs	Scope of plant	Role of ThermoKey	Sustainability risks
Developing a sustainable product	12	ThermoKey Customers End consumer	Direct and caused by ThermoKey	Risks linked to innovation
Training and development of internal personnel	8	ThermoKey	Direct and caused by ThermoKey	Risks linked to personnel
Wellbeing, health and safety of personnel	9	ThermoKey	Direct and caused by ThermoKey	Risks linked to personnel
Ethics and integrity in business	8	ThermoKey Suppliers	Direct and caused by ThermoKey	Compliance risks linked to ethical behaviour
Responsible supply chain	8 9	ThermoKey Suppliers	Direct and caused by ThermoKey and Indirect and caused by suppliers	Risks in the supply chain
Innovation and digital transformation	9	ThermoKey Customers End consumer	Direct and caused by ThermoKey	Risks linked to innovation

Material topic	SDGs	Scope of plant	Role of ThermoKey	Sustainability risks
Supporting and developing the local community	8	Local community	Direct and caused by ThermoKey	Compliance risks linked to ethical behaviour
Waste management	12 13 15	ThermoKey Local community	Direct and caused by ThermoKey	Risks linked to environmental regulation
Reducing emissions	13	ThermoKey Energy providers	Direct and caused by ThermoKey	Risks linked to environmental regulation
Reducing energy consumption	7 12 13	ThermoKey	Direct and caused by ThermoKey	Risks linked to environmental regulation
Use of sustainable materials	12 13 15	ThermoKey Suppliers	Direct and caused by ThermoKey	Risks linked to environmental regulation
Diversity agenda	10 REDUCING INEQUALITIES	ThermoKey	Direct and caused by ThermoKey	Risks linked to personnel

The infographic summarises the material topics identified as significant for ThermoKey and linked to 7 SDGs

SIGNIFICANT MATERIAL TOPICS

Developing a sustainable product

Staff training and development

Wellbeing, health and safety of personnel

Ethics and integrity in business

Responsible supply chain

Innovation and the digital transformation

Supporting and developing the local community

Waste management

Reducing emissions

Reducing energy consumption

Use of sustainable materials

Diversity agenda

4.4 Risk factors and their management

In view of the complexity of our production operations, we considered it essential to outline the process and map the principal risk factors, both in order to take suitable preventive actions and to delineate valid strategies for managing them.

Energy costs

The cost of energy is certainly a risk factor that could compromise our competitiveness, compared to our European competitors: for this reason ThermoKey has developed a performance monitoring activity which allows us to identify the specific actions we can take in order to improve energy efficiency.

Supply chain and microprocessors

A second risk factor we have identified relates to the shortage of microchip suppliers, due to the increase in demand for sophisticated electronic components in various sectors of production. The main producers of components requiring microchips are based in Germany, which means that our German competitors have an advantage when it comes to buying electronic components from suppliers in the same country. 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.

Mitigating the 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 Code of Ethics defines the values, responsibilities and principles on which our Company establishes relationships with each category of stakeholder. It is a guarantee for the effective management of our business and of our human relations, and is based on the principles of fairness and good reputation.

Cyber security

The topic of information security is a critical one. Globally, there is a steady rise in the level of exposure to cyber risk.

We have planned an assessment, to be conducted during 2023 and early in 2024, to establish the level of risk and draw up 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 deriving from external laws, regulations, contracts, policies and with internal 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 the virtual servers;
- Managing the entire HW and SW infrastructure, including the virtual servers;
- Managing the 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 (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 wifi infrastructure was launched. This will require the replacement of all obsolete or vulnerable apparatus, and the centralisation of control of the entire infrastructure in order to mitigate risks and optimise the internal costs of management.

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 achieve 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 also think that innovation lies at the heart of competition. When you are the first to present a new product, you can derive significant benefits in terms of appeal to the end customer, while strengthening your company's image at the same time.

5

Developing a sustainable product with a responsible supply chain
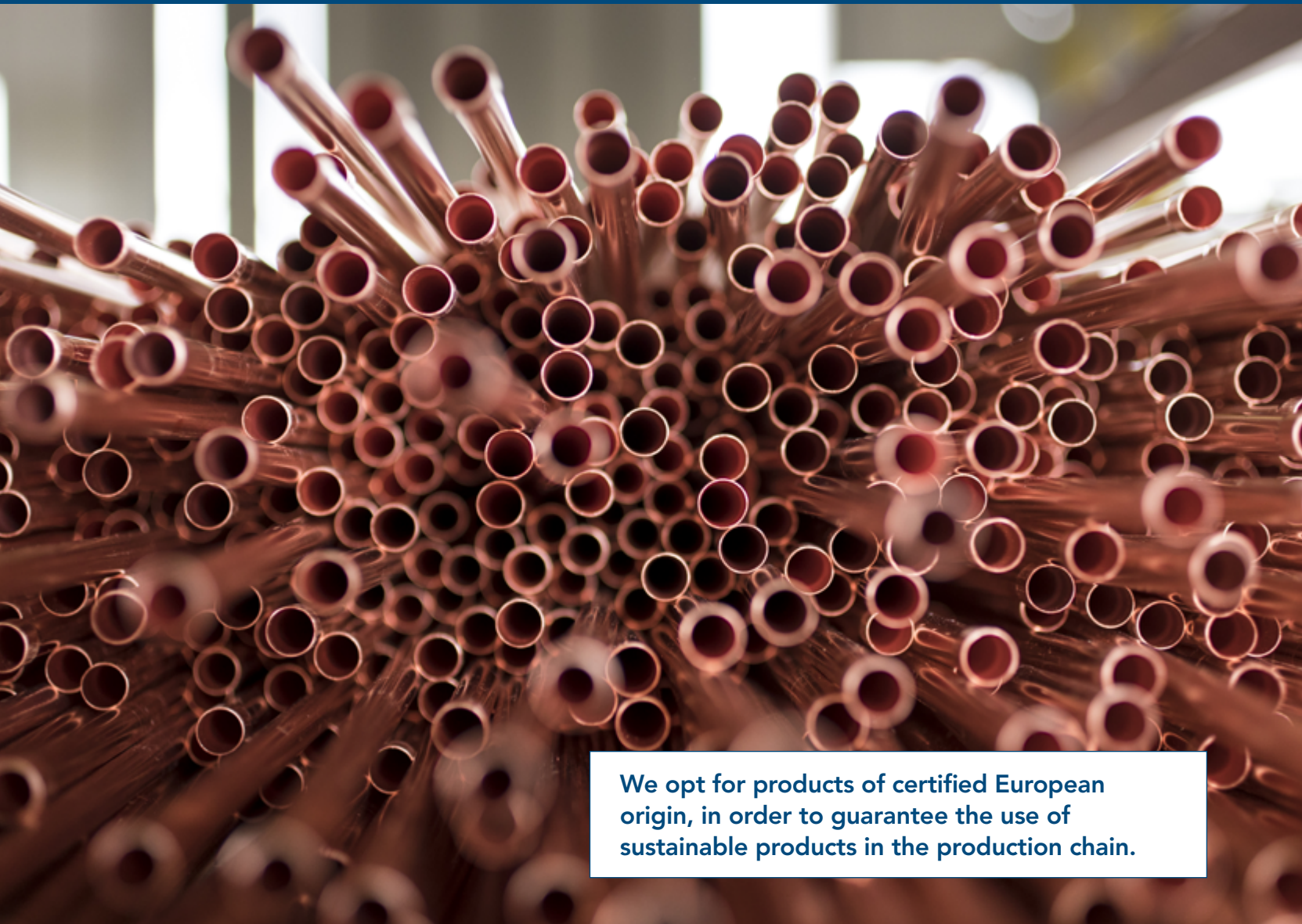
We opt for products of certified European origin, in order to guarantee the use of sustainable products in the production chain.

Targets reached	Targets yet to be reached
HSE compliance questionnaires sent for the first year to all our main suppliers.	Organising supplier audits; ▪ Start of production of microchannel products with the new Multi System Dual Flow technology; ▪ Increasing the use of electronic fans to further reduce energy consumption; ▪ Introducing a new low-ammonia model for ammonia refrigeration systems; ▪ Increasing the market share of the gas cooler platform; ▪ Continuing to develop the microchannel solution for ORC technology; ▪ Facilitating the technology shift from round-tube to microchannel in chiller units (helping to reduce refrigerant load).

Over the years, we have promoted the use of AC fans, which use AC induction motors, compared to EC fans, which use brushless motors—this is in order to improve the product's energy performance.
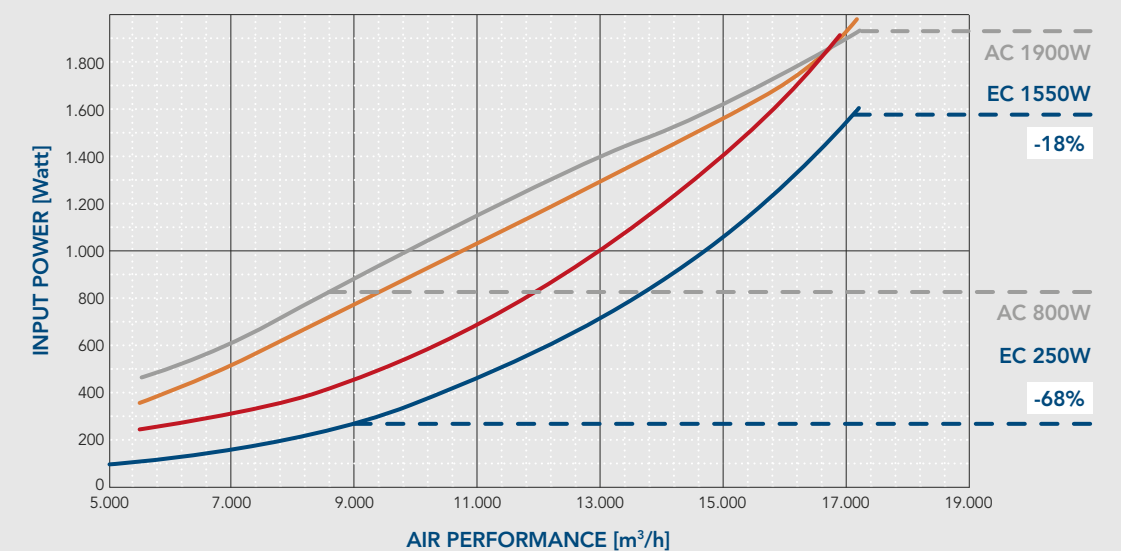
The chart below highlights the impact of the choice of EC Fans on energy consumption

EC TECHNOLOGY

EC motor - premium efficiency

Fonte: ebm-papst

Control system comparison - fan size 800mm aiax

AC 1900W
EC 1550W
-18%

AC 800W
EC 250W
-68%

INPUT POWER [Watt]

AIR PERFORMANCE [m³/h]

16%

Sheet aluminium destined for use in ThermoKey solutions

In line with this objective, the use of EC fans in our machine fleet has risen from just 18% in 2015, to over 47% in 2022.

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

This is why we pay great attention to selecting our suppliers. In general, we prefer European suppliers who have ISO 140001 system certification. The use of European materials, combined with system certification, is vital if we are to guarantee the use of sustainable products in the production chain.

Steel, aluminium and copper are the main bought-in products, as can be seen from the table below, which also shows that around 16% of all bought-in products come from recycled material.

The aluminium we buy and use in our products 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. Reusing aluminium allows us to reduce wastage: of materials, and of energy.

The supplier selection process is essential for ThermoKey: in 2022, in order to strengthen our control system, we invited each supplier to complete a Compliance questionnaire on environmental and safety issues. To ensure that our suppliers are fully engaged on sustainability issues, we have also set ourselves the task of organising supplier audits, as a goal to be reached by the end of next year.

Materials class	Quantity in 2022 (kg)	Average % recycled
Steel	2,251,220	21.95%
Aluminium coils	329,113	28.08%
Stainless steel coils	123,285	85.00%
MPE	343,909	0.00%
Fin tape	1,432,240	10.14%
Stainless steel fin tape	35,174	60.00%
CU pipe	1,075,277	0.00%
Stainless steel pipe	36,308	80.00%
	5,626,526	

6

Use and sustainable management of resources

Targets reached	Targets yet to be reached
▪ Completed the installation of our solar power system; ▪ Process of selecting European suppliers to provide aluminium and the main materials used in production.	▪ Completion of company canteen; ▪ Conclusion of relamping project, to introduce LED lighting systems.

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.

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 eco 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.

We use sustainable materials: in particular, the use of 100% recyclable aluminium means that our components are sustainable even at end-of-life.

6.1 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.

The chart shows the energy consumption data, divided by type, for our three plants (STS, ST1 and ST2) during the 2022 business year.

In order to allow a comparison between the consumption of the different types of energy (natural gas, electricity and diesel), we have converted the data ("2022 consumption") into a single unit of measurement (multiples of Joules).

During 2022, our total energy consumption was 19,931,427 MJ. In detail, the consumption of electricity was 6,225,912 MJ, natural gas was 13,326,727 MJ and diesel used by the vehicle fleet was 378,788 MJ.

The energy intensity for 2022 was 0.41 MJ/Euro. "Turnover" was used as the reference parameter to determine the intensity ratio.

Type of consumption	Consumption in 2022	Udm
Natural gas (methane)	357,528	m³
Electricity	1,729,420	kWh
Diesel	10,217	Litres

SELF-GENERATION OF ELECTRICITY

Reducing emissions of CO_2

290.59 tonnes per year

Energy saving

639,242 kWh

TOTAL CONSUMPTION 2022

Methane - Natural gas STS-ST1-ST2
13,326,727 MJ

Energia elettrica STS-ST1-ST2
6,225,912 MJ

Diesel
378,788 MJ

Total MJ including diesel
19,931,427 MJ

Total MJ not including diesel
19,552,639 MJ
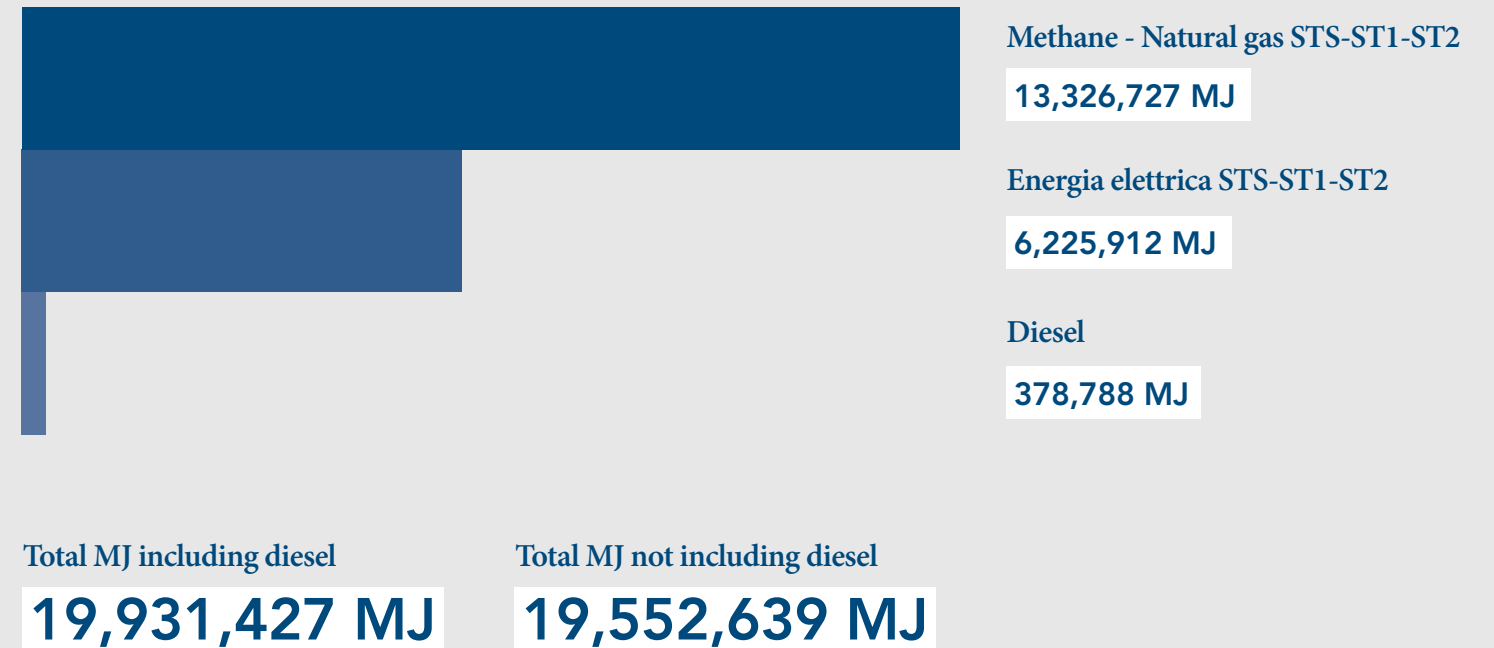
Self-generation of energy with small environmental footprint

In 2022, all the electricity consumed was bought from the national grid. We do not yet have the certificates of origin for the renewables in the energy mix used during the reporting year, but at national level it is estimated that 42.3% (of the electricity purchased) comes from renewable sources.

However, self-generation is an integral part of our commitment to improving energy performance and so in August 2022 we completed the installation of a solar power system on the roof of the ST2 plant. This is an important step towards energy self-sufficiency and reducing our environmental footprint.

The system was configured in order to guarantee maximum ease of maintenance and remote control. The photovoltaic modules are made from PERC (Passivated Emitter and Rear Cell) and half-cut technologies, to allow greater specific performance and longevity.

We believe that this important investment will allow us to accurately quantify the share of self-generated renewable energy, up to a maximum of 500 kWp, and this will be essential in terms of reducing the cost of energy and thereby indirectly gaining competitiveness on the market. The self-generation of electricity will also help us to obtain a reduction in CO2 emissions of 290.59 tonnes per year (11,600 t over the working life), which equates to the planting of 14,530 trees with an energy saving of 639,242 kWh of electricity per annum (calculations based on ISPRA data).

6.2 Emissions

Over 10% of global greenhouse gas emissions come from the cooling industry. Most systems are powered by electricity from non-renewable sources and still use coolants that are released into the atmosphere at end-of-life. One of our main objectives for the future is to make the world of refrigeration and air conditioning more sustainable.

For this reason, the long-term objective of ThermoKey is to reach net zero emissions of greenhouse gases ("Objective Net Zero") in order to limit global warming. This objective, which we expect to reach by 2030, is in line with the target set in the Paris Agreement, which aims to limit global warming to +1.5°C by the end of the century.

Global greenhouse gas emissions

10%

THE COOLING INDUSTRY

Total emissions

For this first sustainability report, we have focused our attention exclusively on calculating the Scope 1 and 2 emissions, but in future are committed to quantifying those in Scope 3 as well.

The total direct emissions (Scope 1) are quantified at 754 t CO_2 e, while the indirect Scope 2 emissions (relating to energy consumption) correspond to 470 t CO_2, e_1.

SCOPE 1 direct GHG emissions	t CO_2, e
Direct emissions from stationary combustion	726
Emissions from fuel in mobile devices	28
Total SCOPE 1	**754**

SCOPE 2 indirect GHG emissions	t CO_2, e
Indirect emissions from imported electricity	470
Total SCOPE 2	**470**

[1]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:
- UK Department for Environmental, Food & Rural Affairs (UK DEFRA) Conversion Factors 2021 (www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019);
- ISPRA manual "Efficiency indicators and decarbonisation of the national energy system and electricity sector" 363/2022.
To calculate the national energy mix, the composition of the electricity fed into the grid by the grid operator (GSE, 2021) was also used, in accordance with the Ministry of Economic Development Decree of 31 July 2009.

How emissions are calculated

The paragraph below gives a breakdown of the emissions by category. Note that in this case there are no biogenic emissions, nor sources of GHG absorption.

SCOPE 1
With regard to the direct GHG SCOPE 1 emissions, the following aspects were considered:

1. Direct emissions from stationary combustion and authorised chimneys
To calculate the direct emissions from stationary combustion and authorised chimneys, the consumption of natural gas for each plant (STS, ST1 and ST2) was multiplied by the appropriate emission factor (UK DEFRA 2021): this enabled the quantification of the GHG emissions, expressed in Kg of CO2 equivalent (KgCO2e).

STS plant – Natural gas	STS1 plant – Natural gas	STS2 plant – Natural gas
199.50 Kg CO_2, e	39.50 Kg CO_2, e	486.97 Kg CO_2, e

2. Direct emissions from mobile sources
To estimate the direct emissions from mobile sources, the table below shows the total consumption of diesel by the company vehicle fleet, and the quantity of GHG emissions deriving from combustion of the same fuel.

Mobile sources: Diesel	Kg CO_2e
Vehicle fleet	28

3. Emissions leaked by air conditioning and chiller units
In this category, it can be seen that there were no leaks for the year 2022. This means that the emission of GHG from possible fugitive gas emissions is zero.

SCOPE 2
Category 2 includes the indirect emissions of greenhouse gases due to electricity bought and consumed during the year, by our company. To calculate the tonnes of CO2, and the consumption data for each plant, this was multiplied by the emission factor relative to the location-based national energy mix. The table below indicates the GHG emissions per plant, calculated on the basis of the energy consumed in 2022.

STS plant - Electricity	STS1 plant - Electricity	STS2 plant - Electricity
302.33 Kg CO_2, e	33.70 Kg CO_2, e	134.39 Kg CO_2, e

6.3 Waste management

We are aware of how important it is to manage waste correctly, which is why we take action to reduce the impact of waste, by favouring the recycling of materials.

Waste will only be sent to landfill or incineration if, due to its type or characteristics, it cannot be sent for recycling.

The table below indicates the volumes of waste generated by our Company in 2021 and 2022, divided by category ("hazardous" – "non hazardous") and by destination ("recycled" – "dumped").

In order to maximise the amount of waste recycled, in the 2022 business year approximately 99.75% of all our post-production waste was recycled. The quantity of waste sent to landfill or incineration is limited, and varies depending on any extraordinary maintenance work carried out during the year. Waste disposal in 2022 was due entirely to extraordinary plant cleaning and maintenance. No waste was disposed of in 2021. Our production cycle generally produces non-hazardous waste such as non-contaminating packaging or production waste such as cardboard packaging, aluminium, iron, steel and wood.

The Company generates a very small amount of hazardous waste, such as chemical containers (which are contaminants) 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. As far as 2022 was concerned, all hazardous waste came from the ordinary production process (mainly comprising chemicals containers and equipment contaminated by chemicals).

From an organisational perspective, the responsibility for managing waste falls to the Integrated Management System Lead. This role deals with the selection of suppliers, requests for collection of materials, managing and compiling the waste characterisation sheets, registering loads and discharges, and managing the waste produced from extraordinary maintenance processes.

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

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 use the services of a dangerous goods safety advisor, with regard to the transport of hazardous waste by road to the licensed waste disposal site.

For our future waste management improvement programmes, we have a project to reduce the volume of mixed waste through compression, to reduce the amount of waste picked up by external waste carriers thereby indirectly reducing Co2 emissions.

In 2023 the company canteen will be inaugurated, which means that over the coming years, new types of non-hazardous urban waste will be generated: we plan to recycle all of this in accordance with the ordinary waste disposal regulations and environmental legislation.

Educating our personnel on how to reduce plastic bottle usage

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 dispensers have been positioned close to the refreshment areas in the production departments of STS and ST1, in the refectory in ST2 and in the office space at the STS plant.

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. It can be recycled an infinite number of times without losing any of its properties.

Unit of measurement Kg	2021							2022					
	Non-hazardous	%	Hazardous	%	Total	%		Non-hazardous	%	Hazardous	%	Total	%
Recycled	1,005,844	100.00%	5,368	100.00%	1,011,212	100.00%		928,133	99.86%	2,930	75.13%	931,063	99.75%
Disposed	-	0.00%	-	0.00%	-	0.00%		1,340	0.14%	970	24.87%	2,310	0.25%
Total	1,005,844	100.00%	5,368	100.00%	1,011,212	100.00%		929,473	100.00%	3,900	100.00%	933,373	100.00%

7

Human capital

Targets reached

- Building flexible employment relationships over the medium to long term;
- Recruitment policy based on equal opportunities;
- Introduction of the company newsletter "TK News", which keeps internal personnel updated on news and events within the company;
- Launch of a bonus/MBO scheme.

Targets yet to be reached

- Rollout of the company welfare system through a digital platform;
- Completion of company canteen to build staff morale and offer additional support to combat the rising cost of living;
- Further development of the MBO incentive scheme to include the welfare programme;
- Extending the involvement of the occupational psychologist, in connection with growth and engagement of personnel.

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.

We believe in the value of professional development and are committed to ensuring regular training provision, particularly when it comes to HS and Quality.

7.1 Employment and diversity

Our aim is to put every worker in a position to express their talents to best effect.

In 2022, the Company's workforce reached an all-time high. As of 31 December 2022, the headcount numbered 197 workers, of whom 166 were hired on permanent contracts, 25 on fixed-term contracts and 6 on apprenticeships.

At ThermoKey we consider it essential to pursue a policy of stabilising employment over time; we do this by creating medium-long term relationships. In 2021 and 2022, approximately 85% of our workforce was hired on a permanent contract.

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

Despite this, our recruitment policy - at every level - is geared towards recruiting people based exclusively on their capabilities, considering the demand for labour, and disregards the candidate's gender or any other characteristic that could form any basis for discrimination.

To accommodate the needs of our workforce, we also offer staff the opportunity to work part-time. Part-time working is particularly appreciated by our female employees, who use this as a way of balancing the needs of the family with their work activity.

Staff on permanent contracts

85%

IN 2021-2022

	2021			2022		
	Men	Women	Total	Men	Women	Total
Permanent	109	46	155	118	48	166
Fixed-term	15	4	19	19	6	25
Apprentices	4	1	5	5	1	6
Total	**128**	**51**	**179**	**142**	**55**	**197**

	2021			2022		
	Men	Women	Total	Men	Women	Total
Senior managers	6	0	6	6	1	7
Middle managers	2	0	2	3	0	3
Clerical staff	34	21	55	34	21	55
Manual workers	86	30	116	100	32	132
Total	**128**	**51**	**179**	**143**	**54**	**197**

	2021			2022		
	Men	Women	Total	Men	Women	Total
Full-time	127	37	164	141	43	184
Part-time	1	14	15	1	12	13
Total	**128**	**51**	**179**	**142**	**55**	**197**

Age group and roles

The distribution of employees by age group is almost identical to last year. The table below shows that most of our personnel (54%) fall into the 30-50 age group, followed by workers aged over 50 (approximately 29%) while the remainder (approximately 17%) are aged under 30.

Contractors

To complete the overview of our human resources, the table below indicates the number of contractors: in 2022 there has been a slight increase in this category compared to the previous year.

Collective agreements

In 2022 and also in 2021, 100% of our employees were covered by national collective bargaining agreements.

Parental leave

Below is a quantitative breakdown by gender, indicating the employees who took parental leave.

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.

	2021				2022			
	< 30 years	30-50 years	> 50 years	Total	< 30 years	30-50 years	> 50 years	Total
Senior managers	0	4	2	6	0	5	2	7
Middle managers	0	1	1	2	0	1	2	3
Employees	8	33	14	55	12	29	14	55
Manual workers	14	73	29	116	21	71	40	132
Total	**22**	**111**	**46**	**179**	**33**	**106**	**58**	**197**

	2021			2022		
	Men	Women	Total	Men	Women	Total
Contractors	8	3	11	9	6	15
Trainees	0	0	0	0	0	0
Total	**8**	**3**	**11**	**9**	**6**	**15**

	2021				2022			
	No. of workers entitled to parental leave	No. of workers taking parental leave	No. of workers who returned to work after parental leave	No. of workers still with the company 12 months after taking parental leave	No. of workers entitled to parental leave	No. of workers taking parental leave	No. of workers who returned to work after parental leave	No. of workers still with the company 12 months after taking parental leave
Man	2	2	2	1	3	3	3	3
Women	4	4	4	4	6	6	6	6
Total	**6**	**6**	**6**	**5**	**9**	**9**	**9**	**9**

Recruitment and staff turnover

New hires and existing workers are assessed according to the fit of the candidate for the particular role, in strict application of equal opportunities for all workers, with no gender discrimination whatsoever.

The information we request at interview is always strictly related to the professional profile and aptitudes of the candidate, whose personal lives and opinions are always respected.

We recruit candidates on the basis of equality and non-discrimination, which eliminates any kind of favouritism or 'special favours'.

In 2022, we saw a net increase in the workforce of 18 staff members, and now employ a higher percentage of women than in 2021.

| | 2021 | | | | 2022 | | | |
| | Joining | | Leaving | | Joining | | Leaving | |
	Number	%	Number	%	Number	%	Number	%
Men	23	85%	16	89%	27	73%	13	68%
Women	4	15%	2	11%	10	27%	6	32%
Total	**27**	**100%**	**18**	**100%**	**37**	**100%**	**19**	**100%**

| | 2021 | | | | 2022 | | | |
| | Joining | | Leaving | | Joining | | Leaving | |
	Number	%	Number	%	Number	%	Number	%
< 30 years	18	67%	10	56%	19	51%	6	32%
30-50 years	5	19%	4	22%	12	32%	10	53%
> 50 years	4	15%	4	22%	6	16%	3	16%
Total	**27**	**100%**	**18**	**100%**	**37**	**100%**	**19**	**100%**

7.2 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.

Set out below are details of staff training provision, by role level.

Compared to the previous year, 2022 saw training provision extended to all staff, with Health and Safety and Quality courses delivered to middle and senior management.

TK News

To keep our workforce constantly updated about life at ThermoKey, we have introduced "TK News", short newsletters which are emailed to staff and posted on noticeboards around the company for everyone to see. The aim is to keep people informed by creating an internal network of information exchange.

Team building

We think 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, 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 objective we wanted to pursue through these meetings was 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.

To ensure that these meetings are helpful in terms of meeting our goals, we employ the services of an occupational psychologist, who specialises in emotional intelligence and cultural change. The main topics discussed at these sessions include:

- Leading a team by promoting the specific characteristics of each member;
- Recruiting new hires and structuring an induction programme;
- Planning professional development programmes;
- Building accountability, encouraging proactivity and autonomy;
- How to organise meetings efficiently and effectively;
- Managing communications for Industry 4.0;
- Caring about quality and waste issues;
- Accident prevention and occupational illness.

During 2022 we set up a management team, tasked with assisting 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. To strengthen this area even further, an outdoor activity day was held at the golf club in Fagagna (Udine).

Employees (not including temporary staff)	2021 Hours	2022 Hours
Senior managers	0	16
Middle managers	0	27
Employees	59	101
Manual workers	119	681
Total	**178**	**825**

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

7.3 Wellbeing, health and safety of in-house personnel

Staff welfare is paramount when it comes to guaranteeing the success of our business in the short, medium and long term. This is why we take action to ensure that all personnel have access to the best conditions, both inside and outside the workplace.

Pay and benefits are based on the provisions of the National Collective Agreement (CCNL) for the Metalworking Industry. We also provide workers with a supplementary healthcare fund, to provide medical benefits in addition to those available under the Italian 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 expenses voucher.

To boost staff satisfaction and wellbeing, three years ago we introduced a results-based bonus system, with easily-measurable criteria which have been agreed with the trade unions. A portion of the 2022 results bonus is paid in the form of welfare vouchers, which allows our workforce to benefit from tax breaks on these amounts.

For the 2023 results-based bonus, we will be using the welfare system exclusively. This year will also see a further upgrade of the company welfare system, in the form of a digital platform focused on various areas of intervention to respond to the needs of our staff.

With a view to implementing welfare policies, we have plans this year to launch a company canteen with subsidised rates for all staff. The canteen service will be provided in a designated restaurant space, serving menus designed to promote healthy living and the use of seasonal, local and organic produce.

Another project in the pipeline is "W il lunedì" ("Roll on Monday"), a set of initiatives for senior management aimed at promoting staff welfare within the company and making it more attractive to the outside world. Work is already underway on some of the services and quality upgrades at the company, such as the canteen, the refurb of the ground-floor offices (including the installation of LED lighting), firming up of the results-based bonus system, the installation of security cameras, road signs in the external parking area and training courses. Other projects will take a bit longer (such as the teambuilding activity, and the installation of air conditioning in the production areas). The mindset behind "Roll on Monday" is to create a comfortable, fulfilling working environment that makes people look forward to returning to work at the start of the week.

Safety in the workplace

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 staff and non-company workers.

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, we have a management system 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 an operational perspective, the Safety office is extremely active and strict in managing all processes, regularly updating the management board on any weaknesses that may require intervention, based on a scale of investment priorities.

In addition to the continuous updating of QSE management, we have launched a second important process, which is the digitalisation of processes using the Q-81® HSE WEB APP. The introduction of this process will help to further refine the level of operativity and reduce margins of error caused by unmonitored deadlines, for example.

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.

In terms of the quantitative data, in 2022 and 2021, 100% of our staff and non-company workers or contractors were covered by our HS management system. There were no recorded deaths, accidents, serious accidents or incidents related to occupational illnesses.

8

ThermoKey
and the community

Targets reached	Targets yet to be reached
▪ Support for artistic projects designed to raise community awareness of environmental issues; ▪ Support for local universities, in the form of periodic collaborations.	▪ Participation in the Udine Jobs Fair organised each year by ALIg APS, the Association of Management Engineering Graduates founded by a group of management engineering graduates from the University of Udine; ▪ Creation and award of two scholarships, to launch a project to develop green tools and technologies

8.1 Supporting and developing the local community

We are aware of and honoured by 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.

To promote local employment, we work actively with the University of Udine, through a collective apprenticeship programme with university students who are given an opportunity to work at ThermoKey.

Art project "Il mare inizia in città"

ThermoKey contributed to the art project "Il Mare inizia in città" [The Sea starts from the city], organised by Elisabetta Milan. The outdoor eco art itinerary through the canals of Udine is designed to raise public awareness of how important it is to protect our aquatic and marine environments.

The project received scientific support from WWF AMP Miramare and the Friuli Museum of Natural History, and shows us that anything we throw into a water course - in this case the irrigation ditches of Udine - will end up in the sea, along with all the waste dumped in the city's domestic sanitation system and sewers.

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 future employment at our organisation.

We have now started a collective apprenticeship 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 apprenticeship programmes.

Finally, to expand our business in the region, ThermoKey has joined the Association of Industrialists (Confindustria Udine).
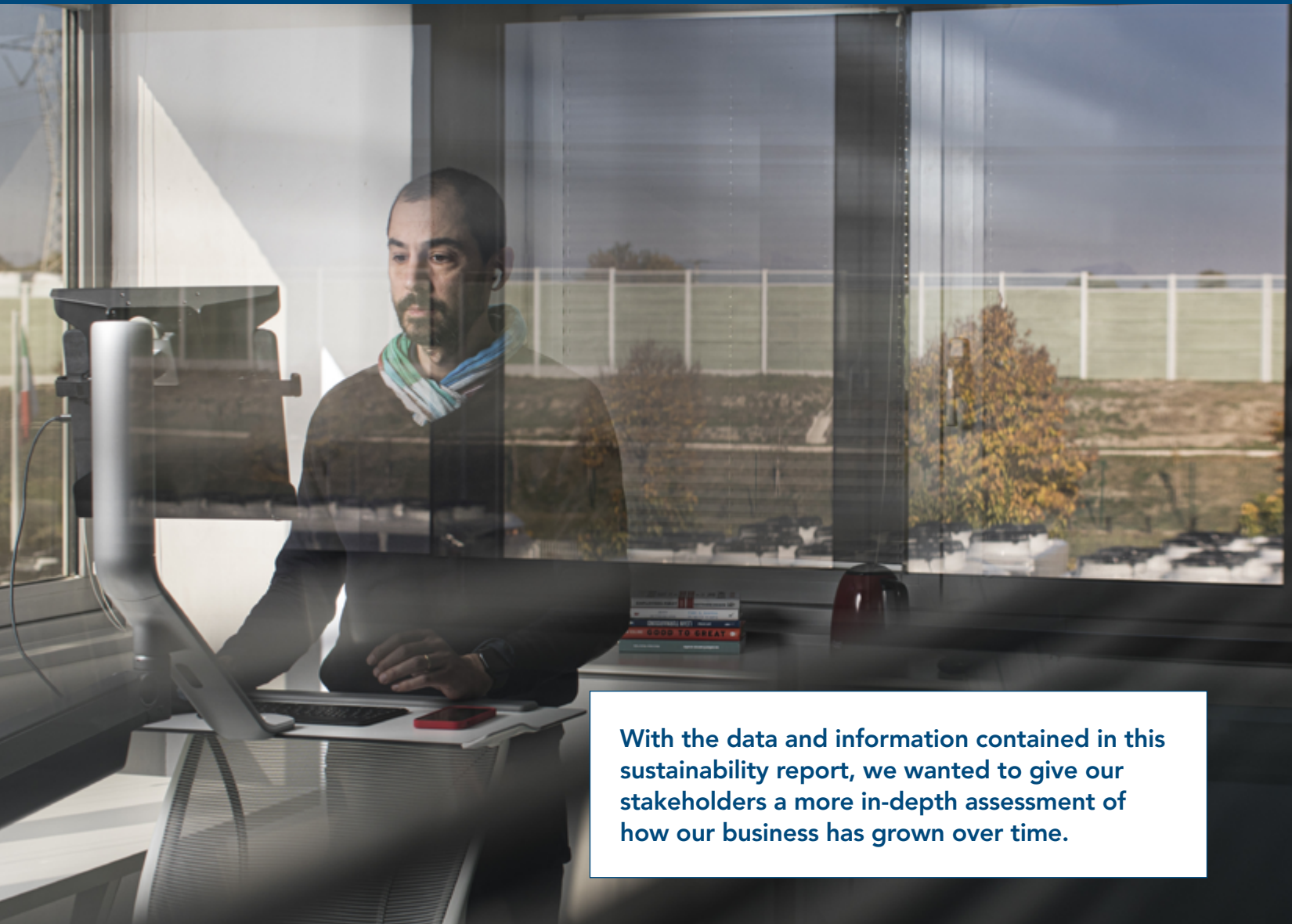

Photo of the art installations set up in Udine as part of the project "Il Mare inizia in città".

9

The process of presenting the sustainability report and material issues

9.1 The process of presenting the sustainability report and material issues

The reporting scope for this document is ThermoKey S.p.A.

ThermoKey S.p.A. has presented the information included in the GRI content index for the period from 1 January until 31 December 2022, based on the GRI Standards.
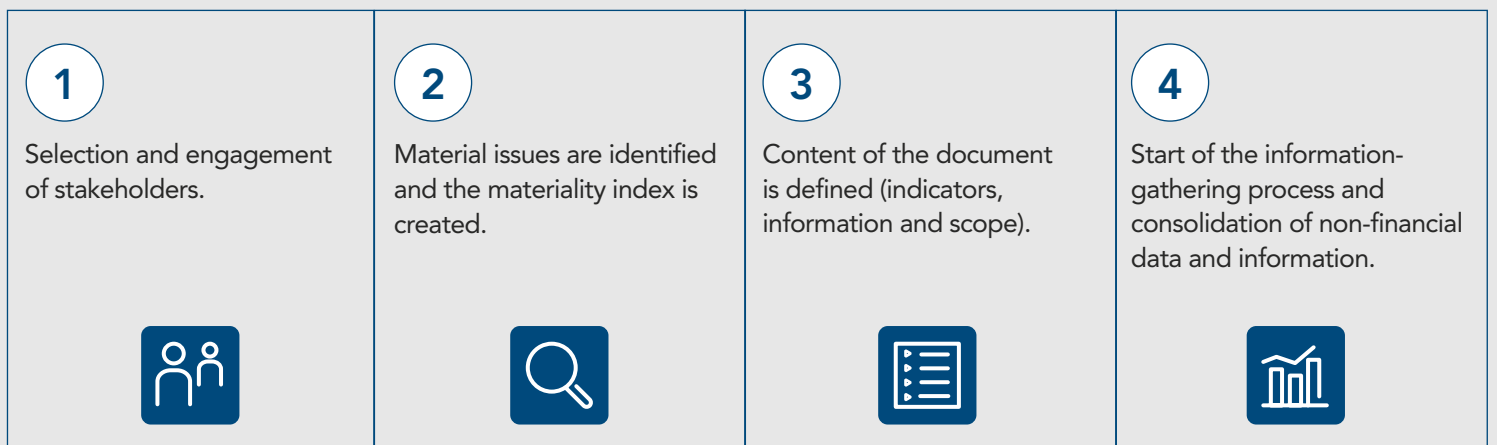
The sustainability report is aligned with the financial reporting period.

The data from the previous period in 2021 are contained in this sustainability report for the purposes of comparison, to give our stakeholders a more in-depth assessment of how our business has grown over time.

We set up an internal working group representing the main business functions in order to collect the required information, aggregate it, validate it and store the supporting documents to ensure their traceability

With the data and information contained in this sustainability report, we wanted to give our stakeholders a more in-depth assessment of how our business has grown over time.

THE REPORTING PROCESS

Key phases of work

1	2	3	4
Selection and engagement of stakeholders.	Material issues are identified and the materiality index is created.	Content of the document is defined (indicators, information and scope).	Start of the information-gathering process and consolidation of non-financial data and information.

9.2 Our sustainability team

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

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).

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

9.3 GRI content index

GRI 1 USED	GRI 1 - FOUNDATION 2021	
Universal Standard	Information Document	Paragraph
GRI 2 - GENERAL DISCLOSURES 2021	2-1 Organizational details	2.1 – 2.3
	2-6 Activities, value chain and other business relationships	1 - 2.2 – 2.3 – 2.4
	2-7 Employees	7.1
	2-8 Workers who are not employees	7.1
	2 -28 Membership associations	8.1
	2-22 Statement on sustainable development strategy	Letter from the Governance team
	2-23 Policy commitments 2-24 Embedding policy commitments	3.4
	2-26 Mechanisms for seeking advice and raising concerns	3.3
	2-9 Governance structure and composition	3.1 – 3.2
	2-12 Role of the highest governance body in overseeing the management of impacts	3.1 – 3.2
	2 -14 Role of the highest governance body in sustainability reporting	9.2
	2-29 Approach to stakeholder engagement	4.1 – 4.2
	2-30 Collective bargaining agreements	7.1 - 7.3
GRI 3 - MATERIAL TOPICS 2021	3.3 Management of material topics	4.1

GRI 1 USED	GRI 1 - FOUNDATION 2021	
Universal Standard	Information Document	Paragraph
GRI 3 - MATERIAL TOPICS 2021	3-2 List of material topics	4.2 – 4.3
GRI 2 - GENERAL DISCLOSURES 2021	2-3 Reporting period, frequency and contact point	9.1
GRI 3 - MATERIAL TOPICS 2021	3.3 Management of material topics	2.6 - 4.4 – 5 – 6 – 7 - 8
GRI 201 - ECONOMIC PERFORMANCE 2016	201-1 Direct economic value generated and distributed	2.5
GRI 301 - MATERIALS 2016	301-1 Materials used by weight or volume	5
	301-2 Recycled input materials used	5
GRI 302 - ENERGY 2016	302-1 Energy consumption within the organization	6.1
	302-3 Energy intensity	6.1
	302-4 Reduction of energy consumption	6.1
GRI 305 - EMISSIONS 2016	305-1 Direct (scope 1) ghg emissions	6.2
	305-2 Energy indirect (scope 2) ghg emissions	6.2
	305-5 Reduction of ghg emissions	6.2
GRI 306 - WASTE 2020	306-3 Waste generated	6.3
	306-4 Waste diverted from disposal	6.3
	306-5 Waste directed to disposal	6.3

GRI 1 USED	GRI 1 - FOUNDATION 2021	
Universal Standard	Information Document	Paragraph
GRI 2 - GENERAL DISCLOSURES 2021	2-27 Compliance with laws and regulations	3.5
GRI 401 - EMPLOYMENT 2016	401-1 New employee hires and employee turnover	7.1
	401-3 Parental leave	7.1
GRI 403 - OCCUPATIONAL HEALTH AND SAFETY 2018	403-1 Occupational health and safety management system	7.3
	403-5 Worker training on occupational health and safety	7.2
	403-8 Workers covered by an occupational health and safety management system	7.3
	403-9 Work-related injuries	7.3
	403-10 Work-related ill health	7.3
GRI 404 - TRAINING AND EDUCATION 2016	404-1 Average hours of training per year per employee	7.2
GRI 405 - DIVERSITY AND EQUAL OPPORTUNITIES - 2016 VERSION	405-1 Diversity of governance bodies and employees	7.1
GRI 413 - LOCAL COMMUNITIES 2016	413-1 Operations with local community engagement, impact assessments, and development programs	8.1

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