

**2025**

Sustainability Report

tenova 

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# A Message from our CEO



Dear Stakeholders,

Some of the most important things we do cannot be seen.

No one can see carbon emissions that are prevented, just as no one notices resources that are saved or risks that are avoided. Yet these unseen results are where technology creates lasting value. Through solutions such as Direct Reduced Iron (DRI) plants and Electric Arc Furnaces (EAFs), the steel industry is making a profound shift toward lower-carbon production. The impact is tangible: the emissions avoided by a single large-scale DRI-EAF complex can be comparable to taking hundreds of thousands of cars off the road every year. This is how engineering translates into benefits that extend far beyond industrial facilities.

At Tenova Group, enabling this transition is our purpose. Every day, we work alongside our customers to make metals and mining more sustainable, efficient, and safer. By combining technology, digital capabilities,

and decades of industrial expertise, we continue to develop solutions that address some of the most pressing challenges of our time while supporting the competitiveness of the industries we serve.

At the same time, sustainability starts with ourselves. During 2025, we further expanded renewable energy generation at our Castellanza Campus and improved the efficiency of our operations, contributing to a reduction in our emissions. We strengthened our governance framework by reinforcing the Sustainability Steering Committee and introducing new procedures aimed at ensuring transparency, compliance, and responsible supply chain management.

Above all, we continued investing in our people. Their skills, dedication, and passion remain the foundation of our success. Through enhanced training programs, the launch of global Compliance Fundamentals initiatives,

and the introduction of a new Digital Employee Hub, we continued fostering a culture built on knowledge, responsibility, and inclusion.

Sustainability is not a destination, but a continuous journey. It requires long-term vision, collaboration, and the courage to innovate. The progress described in this report reflects the commitment of our people and the trust placed in us by customers, partners, and stakeholders around the world.

Together, we are not only imagining a more sustainable future. We are engineering it.

**Roberto Pancaldi**

Chief Executive Officer

# 2025 Highlights

## Environmental



Landmark **projects with leading steel producers** that advanced decarbonization through DRI, Electric Arc Furnaces, hydrogen-ready and circular technologies



**TenovaLAB** selected as a European demonstrator for **hydrogen-based industrial reheating technologies** through the HyTecHeat project



**5 out of 7** EU and Italian R&D proposals selected for funding, with **3 projects launched** in 2025

## Social



An average of **19.4 hours of training** per employee, increased by 8% compared to 2024



Launch of the global **Compliance Fundamentals training** initiative



Launch of the **Digital Employee Hub**, a user-friendly platform designed to centralize and enhance access to **company news** and **employee welfare services**

## Governance



Reinforcement of the **Sustainability Steering Committee** with **4 new members** to drive sustainability strategy and organizational objectives



Updates to the **Whistleblowing Procedure**, reinforcing compliance, transparency, and alignment with international best practices



Definition of a dedicated **CBAM Framework** aimed at strengthening sustainable supply chain governance

# About this Report

This document is **Tenova Group's second consolidated Sustainability Report**. It marks a further step in the Group's structured and ongoing approach to ensuring transparent and consistent disclosure of its sustainability performance over time. In this report, any reference to "**Tenova Group**" is to be intended as inclusive of **Tenova S.p.A. along with its subsidiaries** in line with the Tenova S.p.A. Consolidated Financial Statement. The term "**Tenova**" as used herein refers specifically to the activities in **metals**, while "**TAKRAF**" refers to the activities in **mining**.

The Report aims to provide the reader with clear, accurate, robust and understandable information on the **relevant impacts** generated by Tenova Group in the environmental, social, and governance spheres, outlining the Group's **sustainability approach, policies, actions, and performances** achieved during the period **from January 1<sup>st</sup> to December 31<sup>st</sup> 2025** in line with the financial reporting period, and will be prepared on an **annual basis**. As this is the Group's second year of consolidated reporting, **comparative data for**

**2024** are disclosed to support the analysis of **year-on-year variations** and enhance the assessment of performance **trends over time**.

Some comparative figures for 2024 have been restated due to refinements in the calculation and data collection methodology and are explicitly indicated in the relevant sections. For the data previously published please refer to what was reported in the previous Sustainability Report.

The contents are drafted **in accordance with the Global Reporting Initiative (GRI)** Sustainability Reporting Standards, published in 2021 by the GRI, and were identified based on the results of the **materiality assessment**, as explained in the section "Our Material Topics".

As for the **scope of the information** and data reported, some exclusions have been made in this year's reporting perimeter due to specific limitations in data availability or monitoring capacity. In addition, as regards environmental data, only offices and plants

identified as utility holders have been included, as they are able to retrieve reliable data and have direct control over their energy consumption and emissions. Any additional **scope limitations are appropriately indicated** within the document. Consistent with the principles of comparability and transparency that guide the entire document, the use of **estimates has been limited**, and where applied, is based on the best available methodologies and is clearly disclosed.

The Report is not subject to third-party assurance. The preparation of this document involved the coordinated efforts of all relevant company functions, with the **Sustainability Steering Committee** overseeing the materiality assessment process and validating its results.

For more information and feedback regarding this Report, published in **July 2026**, please contact [sustainability@tenova.com](mailto:sustainability@tenova.com).



# About Tenova Group

**Tenova Group** encompasses Tenova S.p.A. and its subsidiaries, and aims to provide sustainable, innovative, and reliable solutions in the **metals and mining industries**. These businesses are developed through the activities of **Tenova**, a leading provider of sustainable solutions for the steel and metals industry, and **TAKRAF**, a leader in the mining sector regarding technological solutions. Headquartered in Castellanza (Italy), with **over 2,500 employees across 18 countries**, Tenova Group partners with global clients to design and **develop innovative technologies and services** that improve

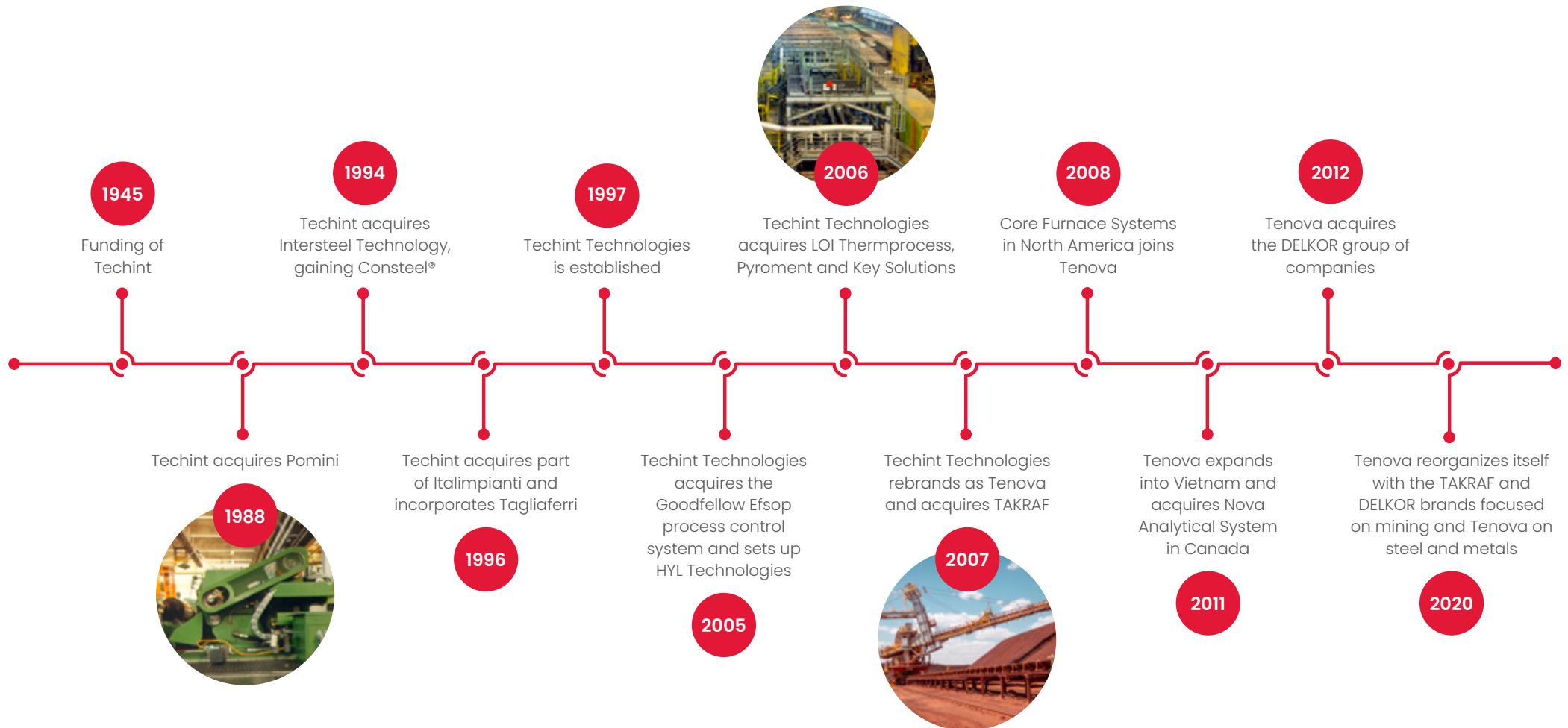
and futureproof their businesses, generating cost savings and energy reductions, limiting environmental impact, and improving employee working conditions.

Our **collaborative working model** ensures we are at the forefront of the industries we work in and allows us to drive positive and comprehensive transformations for our clients.

To learn more about our fully integrated range of sustainable products, technologies, and services for the metals and mining industries, please visit [tenova.com](https://www.tenova.com) and [takraf.com](https://www.takraf.com).

# Our Journey

From the foundation of Techint in 1945, over almost **eight decades** the Group has achieved significant milestones, driving innovation, and evolving to become a **leader in its respective industries**. This timeline highlights the key events that have shaped our remarkable journey to the present day.



# Our Brands

Tenova Group is committed to achieving **the highest standards of engineering excellence** in the metals and mining industries by continuously innovating to deliver the **best technologies** and **sustainable solutions** that enhance quality, improve energy efficiency, and reduce CO<sub>2</sub> emissions. To fulfil this mission, Tenova Group comprises two different yet integrated businesses:

the **metals business**, active in the market with nine specialized brands, each dedicated to a specific technology; and the **mining business**, operating under the TAKRAF and DELKOR brands, delivering comprehensive solutions for mineral extraction, bulk material handling, and processing.

## Metals business



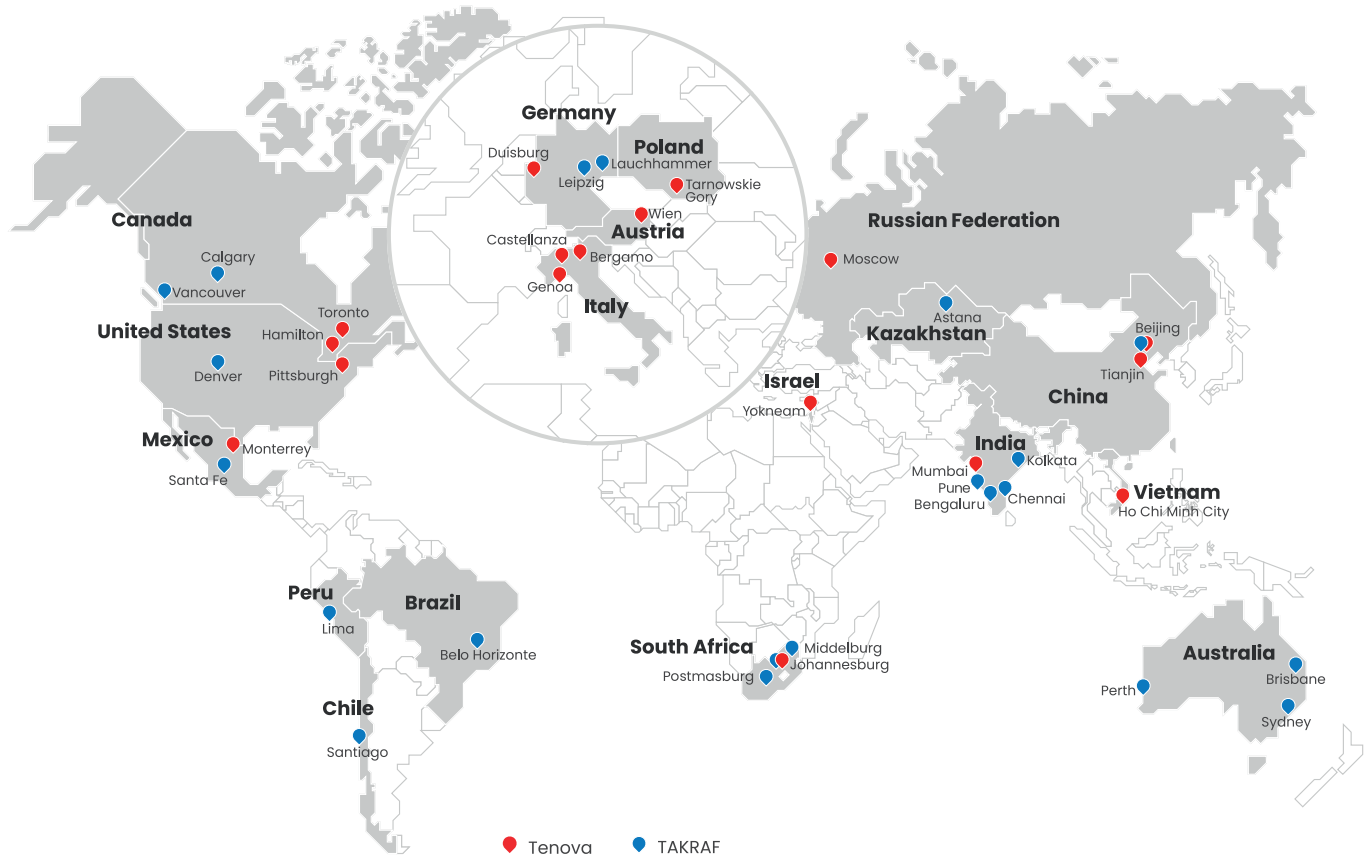
## Mining business



# Our Global Presence

We have grown through **strategic acquisitions** and **organic expansion**, while staying true to our mission to be among the best players in our market **providing sustainable solutions for the industry**. Tenova Group is headquartered in **Castellanza, Italy**, while **Leipzig, Germany**, is the primary technology hub for our mining solutions. We have locations across **18 countries**, providing customized products, technologies, and services for our clients based on their operating locations as well as local and regional regulations.

## Where We Are



# Our Technologies

At Tenova we are committed to designing and delivering **innovative and reliable technological solutions** for the metals industries, guiding our clients throughout their **green transition** journey by helping them reduce their environmental impact while supporting the industry's shared objective of **making the sector safer** and **more efficient**. We invest in research and development to stay at the forefront of technological innovations, providing clients with cutting-edge, flexible solutions tailored to meet both **current needs** and **future challenges**.



## Iron & Steel

Tenova offers a fully integrated range of high-quality products, technologies, and services for the steelmaking route, from iron ores and scrap to secondary metallurgy. Tenova is on the leading edge, offering innovative solutions for circular processes and environmental control in the industry. For downstream steel production, Tenova offers a wide range of equipment solutions for flat, long, plate, pipe, and forging plants.

## Aluminum

From twin-chamber melting furnaces to advanced processing technologies and high-quality roll grinders, the Group supplies its clients with cutting-edge solutions for a range of aluminum needs. Tenova is the leading supplier of aluminum treatment lines for the automotive industry, with several processing lines successfully in operation for the major aluminum producers. Moreover, Tenova is a valuable partner providing top engineering solutions for aluminum smelting and recycling.

## Hydrometallurgy

Tenova Advanced Technologies (TAT) is the global Tenova brand specializing in hydrometallurgical processing, with a special focus on lithium and phosphate processing and solvent extraction.

## Pyrometallurgy

Tenova also designs and supplies high-capacity Alternate Current (AC) & Direct Current (DC) furnaces as well as complete smelting plants to produce ferroalloys, platinum group metals, and base metals.

## Rolling & Grinding

As a full-service, experienced partner, Pomini Tenova is a world leader in the design and supply of roll grinders and roll shop equipment for steel and non-ferrous metals such as copper, aluminum, as well as for paper mills, guaranteeing the highest standards in terms of material quality, thickness tolerance, and flatness.

## Port Equipment

Under the brand Tenova Material Handling, the company supplies standard and custom material handling equipment, with a particular focus on loading and unloading at marine terminals.

The Group is also recognized as a leader in the **mining industry** through the the global **TAKRAF** brand, covering mining, bulk material handling, and comminution, and **DELKOR**, which focuses on liquid-solid separation and wet processing. Main technologies include:



### Mining Systems and Equipment

TAKRAF solutions range from excavating to crushing plants, conveying, spreading (dumping), and various auxiliary equipment.



### Bulk Material Handling

A complete portfolio of TAKRAF solutions that range from stockyard and disposal facilities to loading and unloading equipment, conveying, port facilities, continuous heap leach systems, and various “in-plant” handling equipment.



### Minerals Processing

Covering various TAKRAF solutions on the comminution side to DELKOR liquid/solid separation, wet processing solutions, and combined TAKRAF and/or DELKOR solutions for Dry Stack Tailings (DST).



### Services & Components

Covering the entire complement of TAKRAF and DELKOR solutions and including project development services, construction and commissioning, fabrication and components, and technical services and spares.



# Our Sustainability Strategy

Our business strategy is built on **four commitments** and grounded in **driving sustainable solutions** for our clients and communities:



**Sustainability** - identifying opportunities to streamline industrial processes, resulting in increased efficiency;



**Innovation** - devising novel solutions to age-old problems;

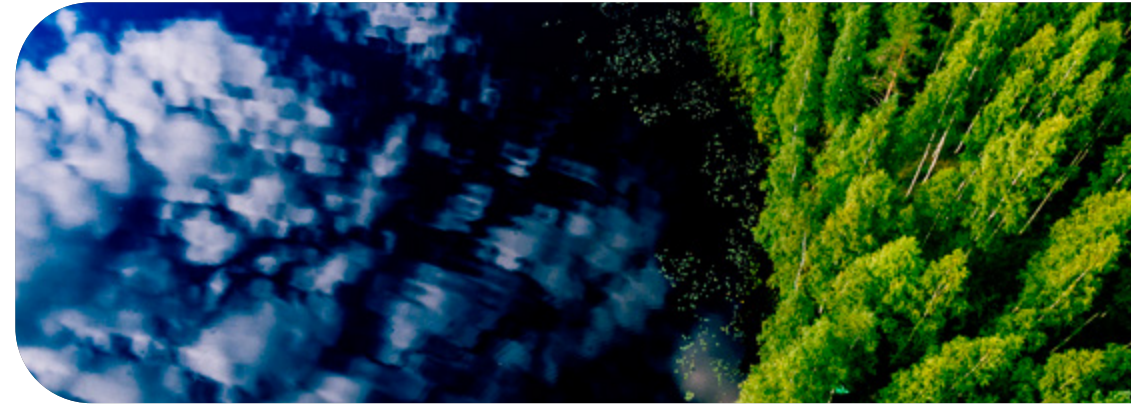


**Reliability** - using our in-depth expertise to ensure our solutions last well into the future;



**Safety** - making workplaces safer.

# Our **Material Topics**



Tenova Group's 2025 sustainability performance reporting is grounded in a thorough **materiality assessment**, aimed at identifying the **most relevant environmental, social, and governance (ESG) topics** for both the Group and its stakeholders. This assessment was conducted in 2024 and has been deemed still valid for the 2025 reporting cycle, as **no significant changes have occurred** in the Group's business activities, operating context, or stakeholder landscape. This approach enables us to **ensure transparent disclosure** while effectively guiding the Group's broader sustainability strategy.

Looking ahead, in the coming reporting cycles, the Group is expected to fall within the scope of the **Corporate Sustainability Reporting Directive (CSRD)**, the EU directive requiring companies to report their

relevant sustainability performances in a more detailed and comprehensive manner. This transition will mark a significant milestone for the Group, which has already been engaging in voluntary sustainability reporting since 2022.

We are closely monitoring the evolution of advanced sustainability disclosure requests and standards, with the goal of enhancing transparency and accountability in how we communicate our impacts, always with a view toward **continuous improvement** and **alignment with stakeholder expectations**.

To that end, we have chosen to incorporate targeted developments designed to gradually align with the potential upcoming reporting requirements. One such development concerns our materiality analysis: in 2024,

we conducted an **impact materiality assessment** in accordance with the methodology set forth in the GRI Standards, and in alignment with the **European Sustainability Reporting Standards (ESRS)** which are the current European reporting standards enforced by the CSRD at the time of writing this Report.

The materiality assessment, as well as the whole reporting project, was carried out by our dedicated, interdisciplinary **Sustainability Project Team**, supported by the **Operative Committee** – which includes representatives from all Tenova Group Business Units and Functional Areas – and overseen by the **Sustainability Steering Committee**, which validated the results of the assessment (see Governance and ESG Management, p. 74).



## The materiality assessment process was developed over several key phases:

### 1) Context Analysis:

In the initial phase, Tenova Group conducted an **overview** of its operations, business relationships, sustainability context, and key stakeholders. This step was essential in **identifying the topics of interest** and the main impacts of the Group.

### 2) Identification of an Impact Long List:

Once the **relevant topics** were defined, each was **broken down** into single **impacts**, both positive or negative, actual or potential, arising from Tenova Group's activities and operations with respect to the environment, the community, and other stakeholders identified in the previous phase. Each identified impact was, in turn, **linked to** the corresponding topics, sub-topics, and sub-sub-topics outlined in the **ESRS framework**. As a result, a long list of sustainability-related impacts was identified as relevant to the sector and potentially material for the Group.

### 3) Assessment of Impact Significance:

The significance of each impact was then **evaluated across different dimensions**, following the requirements of the Reporting standards. In the evaluation process, we took into consideration scale, scope, irremediable character, and likelihood of each impact.

The impact evaluation was assessed by engaging **key internal** and **external stakeholder groups** in a voting process. At this stage, a stakeholder engagement activity was conducted, considering the input and views of over 700 internal and external stakeholders, and has resulted in a shortlist of **relevant ESG topics** connected to impacts. Further details on this engagement process are provided in the following chapter "Stakeholders' contribution to our Materiality assessment."

### 4) Materiality Threshold and Impact Prioritization:

Following the assessment of all impacts potentially relevant to the Group, a **materiality threshold was established** to determine which impacts are the most significant for the Group. All the impacts scoring above this threshold were included in the final list of **material impacts**. More specifically, the materiality threshold was defined by identifying as material those impacts that resulted from a combination of relevance (based on the criteria taken into consideration during the evaluation process) and likelihood, according to a risk-based approach.

As part of this year's impact **materiality assessment**, the Group **considered its entire value chain**. Although comprehensive data on value chain impacts is not yet available, an initial evaluation was carried out to identify and estimate the most relevant areas. Going forward, the Group intends to strengthen its monitoring systems to progressively integrate these aspects and enhance the overall coverage of its ESG performance.

The following list includes the ESG topics that have been identified as **relevant for the Group's own operations** as a result of the materiality assessment and that will be further disclosed in the present Report<sup>1</sup>:



This analysis represents a key building block for our forthcoming **double materiality assessment** (both inside-out and outside-in perspectives), as required by the CSRD framework.

<sup>1</sup>For the complete results of the impact materiality assessment, listing the most significant sustainability impacts of the Tenova Group (own operation and value chain), please refer to the table in the Appendix, within the section titled "ESG topics and impact scope."

# Stakeholders' Contribution to our Materiality Assessment

At Tenova Group, **stakeholder engagement is not a formality; it is a core principle**. We recognize that our stakeholders are not only affected by our activities, but also key users of the sustainability information we disclose. For this reason, we placed their voices at the centre of our materiality assessment process.

To capture a complete view of our **actual and potential impacts**, we actively engaged both **internal and external stakeholders in 2024**, including Techint Group representatives. The goal was to gather insights that truly reflect the complexity of our operations and the breadth of our sustainability footprint. We began with a series of **in-depth interviews**, involving internal stakeholders whose perspectives are critical to our strategic direction: among them, the **senior**

**management of both Tenova and TAKRAF** were engaged, alongside representatives from core ESG-related functions, such as **Corporate Communications, Legal & Compliance, QHSE, Human Resources, Supply Chain, and Research & Development**. These conversations helped us understand not only the operational impacts but also the broader strategic risks and opportunities.

To deepen the analysis, we incorporated the voices of our **Business Unit Leaders**, whose direct knowledge of our technologies, processes, and customer applications enabled us to examine the impacts generated across the value chain more closely, in line with the reporting standards' requirements.

At the same time, we conducted a **targeted survey** with four key stakeholder groups, chosen for their ongoing relationship with the Group, and their exposure to ESG themes:



**Employees**



**Suppliers and business partners**



**Customers and Techint Group representatives**



**Banks and financial institutions**

This engagement strategy provided us with a comprehensive view of our sustainability impact, aligned with our ambition to be accountable and improve our understanding of the Group's impacts.

# Our Sustainability Framework

To drive purposeful action on its impacts and clearly demonstrate its sustainability ambition, in 2023 Tenova developed a tailored **Sustainability Framework**, initiating a participatory **co-creation process** by engaging leaders and key internal stakeholders alike to jointly define this framework and articulate a shared sustainability vision for the company.

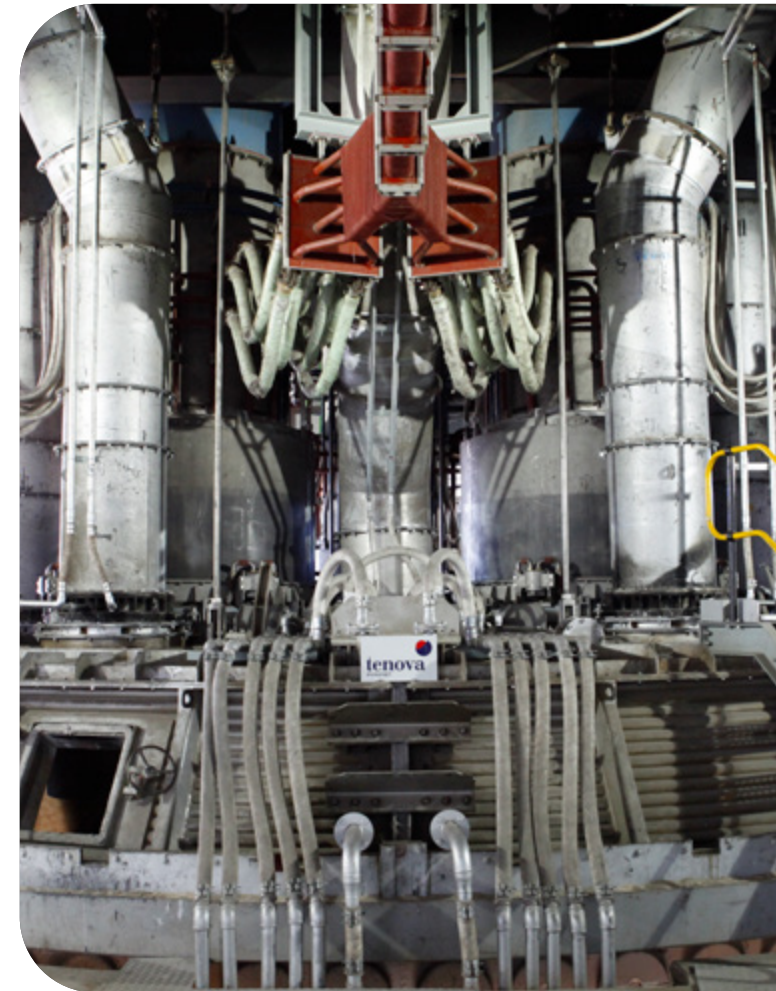
The resulting framework is structured around **three strategic pillars**:

- **We Transform Business:** Helping our clients and suppliers transform to operate within planetary boundaries.
- **We Build Trust:** Empowering our employees and reinforcing mutual trust with all our stakeholders.
- **We Act Transparently:** Being transparent within our organization and operating responsibly.

**Transformation, Trust, and Transparency** are the foundational concepts that guide these pillars. It is no coincidence that each begins with the letter “T”, a clear signal of our intention to embed sustainability at the very heart of **Tenova Group’s identity**. Presenting them through “we” statements makes our commitments more concrete, while adding a distinctively personal and collective Tenova touch.

The material topics identified through the 2024 **impact materiality assessment** at the Group level are naturally aligned with the three pillars, ensuring that the related significant impacts are addressed through a consistent and strategic approach.

Furthermore, each pillar has been mapped in relation to the **United Nations Sustainable Development Goals (SDGs)**, placing Tenova Group’s strategy within a broader global framework for sustainable development.



Our ambition

We **lead the way** towards the sustainable **transformation** of our industry.

We **enable** our people, clients, suppliers, and stakeholders to grow and innovate **while caring** for the well-being of our planet.

We **contribute to a resilient and fair world** by operating responsibly.

Our pillars

**WE TRANSFORM BUSINESS**  
 Helping our clients and suppliers transform to operate within planetary boundaries.



- Developing sustainable solutions & technologies
- Investing in sustainable innovation, R&D, and Digital Transformation
- Developing safe-by-design technologies



Impact from business

**WE BUILD TRUST**  
 Empowering our employees and reinforcing mutual trust with all our stakeholders.



- Providing a safe working environment
- Caring for our employees & providing equal opportunities
- Managing talent, empowering and training employees
- Accounting responsibly for our direct environmental impact
- Strengthening our collaboration with communities and stakeholders at large



Impact from our own operations

**WE ACT TRANSPARENTLY**  
 Being transparent within our organization and operating responsibly.



- Ethically operating our business
- Communicating our impact openly and responsibly
- Engaging suppliers for a sustainable and resilient supply chain, and providing supply chain transparency
- Embracing sustainable finance principles



Our focus areas

# Sustainable and Reliable Value for our Clients

## Helping our clients and suppliers evolve to operate within planetary boundaries

The **metals and mining industries** must evolve to significantly **reduce their carbon emissions** and limit global warming to internationally agreed limits. Tenova Group is helping drive this transformation by developing **innovative technologies** that not only support our clients in delivering **better products** but also drastically **reduce** their **environmental impact**.

In this section, we report on how we support our clients in reducing their environmental impact with our portfolio of products, technologies, and services, with a focus on digital transformation.



# Driving Sustainable Solutions

Our portfolio of solutions is primarily dedicated to the sustainable transformation of the metals and mining industries. We create value for our clients by providing innovative technologies that ensure efficiency, resulting in improved performance, reduced waste, and lower carbon emissions. These technologies support the transition to cleaner fuels, and facilitate the recovery and reuse of previously wasted materials.

In developing these solutions, we not only serve our clients but also work hard to accelerate our sector's transition to a lower environmental impact.

## Energy Transition

The **iron and steel industry** is one of the largest emitters of CO<sub>2</sub>, responsible for around 7-8%<sup>2</sup> of global direct energy-related CO<sub>2</sub> emissions. To address this, the steelmaking sector is undergoing a radical transformation to accelerate **pathways to decarbonization**, rethinking the energy sources that drive its industrial processes, and moving away from **carbon-based** iron reduction processes to **natural gas-based** and **hydrogen-based** ones. This shift is part of a broader energy transition in the metals and mining industries, driven by three key trends in which Tenova Group plays a pivotal role through its advanced solutions: **decarbonization & hydrogen, electrification, and digitalization**.

All these trends not only demand increased metal production but also require that production itself evolves in alignment with them. To meet these challenges, Tenova positions itself as a leading figure in fostering a **shift** in the metals industry **energy paradigm** by promoting **hydrogen-ready technologies** to its clients for the transformation process of their business. This is further achieved through partnerships and collaborations with gas supply operators, electrolyzer manufacturers, and other third parties that support a green energy transition.

In this context, the following section presents key products, research cases, and partnerships that are driving the Group's shift in the energy paradigm.



<sup>2</sup> <https://worldsteel.org/climate-action/climate-change-and-the-production-of-iron-and-steel/>



## Electrical Steel

As the world invests in electric vehicles (EVs), improves and expands the electrical grid infrastructures, global appetite for electrical steel grades is growing substantially. **Electrical Steel** exists in different specialty steel grades containing **silicon** as its primary **alloying element**. They are prized for their ability to conduct magnetic fields, and as such are used for electrical applications, from transformers to rotating machines such as generators in wind turbines and electrical motors in EVs. Electrical steels (silicon steel grades) are estimated to make up roughly 1-2% of total crude steel production globally. Tenova's portfolio includes **silicon steel processing lines** and batch annealing furnaces that enable our customers to more efficiently produce metals that will be critical in facilitating the energy transition. Tenova has developed several **technological advancements to improve the performance of electrical steels**, including innovations in the annealing, pickling, decarburization, recrystallization, flattening, and coating operations.

## Improvements in silicon steel

As demand for magnetic steel (a special steel alloyed with carbon and other elements that exhibit magnetic properties and is used in electric machines) and silicon steel continues to grow, the need for **more efficient production methods** is increasing. Thus, Tenova's R&D team has been working intensively to develop technologies that improve the silicon steelmaking process. In addition to **our suite of technologies for silicon steel**, the focus is on improving the **magnetic properties of silicon steel**, hot and cold rolling, and new descaling processes, like laser and other mechanical descaling. Our research intends to find the optimal process to improve surface finishing and enhance magnetic properties.

## DRI & ENERGIRON

The global steel community agrees that the partial or total use of hydrogen **for DRI (Direct Reduced Iron)** production is the most effective route to the decarbonization of the industry. More and more steelmakers are adopting this solution in the installation of **new green steel plants** or in the **decarbonization of integrated steel mills** (i.e. steelmaking from ores as raw materials).

Our **ENERGIRON** technology, jointly developed with Danieli, is at the forefront of sustainable steel production. By utilizing innovative DRI processes, ENERGIRON can reduce carbon emissions by up to 80% compared to traditional steelmaking methods.

This technology has been designed to use **different types of reducing gas sources**, including **pure hydrogen** to reduce iron ores into metallic virgin iron and produce a wide range of **high-quality steels**. ENERGIRON plants efficiently reduce any iron unit into “energized” hot or cold DRI or hot briquetted iron with controlled metallization and carbon levels. ENERGIRON offers unparalleled flexibility: even with the same process scheme configuration, the client can select the best energy source – natural gas, reformed gas, syngas from a coal gasifier, coke oven gas or even hydrogen – without any process modification and can control the amount of embodied carbon during operations.

ENERGIRON plants meet the **most stringent environmental regulations**. Thanks to its unique features, ENERGIRON has the lowest carbon footprint of any ironmaking technology, with the further

advantage that the selectively removed CO<sub>2</sub> can be sold. Additionally, the water byproduct of the reduction reaction, easily condensed and removed from the gas stream, can be used as cooling water in a zero-water consumption circuit.

ENERGIRON technologies have concretely contributed to global steelmaking innovation over the past years. At the end of 2024 Tenova, working with Sinosteel Engineering & Technology Co. Ltd, successfully completed the performance test for the new **hydrogen-based 1,000,000 tons/year ENERGIRON Direct Reduction (DR)** plant for Baosteel Zhanjiang Iron & Steel Co. Ltd.

With a full capacity of 1 million tons per year and installed for Baosteel – a Baowu Group company – it will be **China’s largest hydrogen-based DRI facility**. The plant, which uses natural gas enriched with hydrogen leveraging coke oven gas as the process gas, is also equipped to capture CO<sub>2</sub> for commercial use, further cutting emissions and creating an additional revenue stream. The **strength of our design** lies in the fact that the transition to better gases is possible while keeping the plant open, without requiring fundamental changes to its functional structure.

In **February 2024**, our ENERGIRON technology was also selected by **LKAB**, an international mining and minerals group, for the basic engineering of its 100% hydrogen-based Direct Reduced Iron (DRI) plant in **Gällivare, Sweden**.

The Gällivare demonstration plant has a capacity of 1.35 million MT/yr (metric tons per year) of **fossil-free DRI**. It will combine LKAB’s **HYBRIT** and Tenova’s **ENERGIRON technologies**, drawing on shared expertise in DRI production. Results from the HYBRIT pilot plant show that DRI made with **pure hydrogen** as a reducing agent **outperforms fossil-based alternatives** like natural gas.

DRI plants are typically coupled with **Electric Arc Furnaces (EAF)** for the melting of the DRI and its transformation into sellable iron or steel. Reducing the oxides with natural gas or hydrogen and melting by electric energy instead of using energy from coal generates much less GHG emissions than the traditional BF-BOF route.



## ENERGIRON for NeoSmelt

In 2025, Tenova has been selected as the preferred technology supplier for **NeoSmelt**, a major project aimed at developing low-emissions steelmaking in Australia. The company will lead the **Front-End Engineering Design (FEED)** of a **Direct Reduced Iron (DRI)** pilot plant – one of the key components of the NeoSmelt initiative.

The NeoSmelt project is part of a broader effort to explore **cleaner, more flexible** ways of **producing steel**. It is backed by a consortium of major industry players, including BlueScope, BHP, Rio Tinto, Woodside Energy, and Mitsui Iron Ore Development, and involves a feasibility study for a pilot facility that integrates DRI and electric smelting furnace (ESF) technology.

The NeoSmelt initiative is a critical step in addressing the steel industry's decarbonization challenge. **By integrating DRI and electric smelting technologies**, the project aims to validate a new, **lower-emissions route** to produce molten iron using Pilbara iron ore.

## ENERGIRON for Hyundai Steel

**Hyundai Steel** has selected Tenova and Danieli's ENERGIRON technology for its new sustainable steelmaking facility in the United States. Situated in RiverPlex Mega Park, Louisiana, the plant will have an annual production capacity of 2.5 million tonnes of hot and cold Direct Reduced Iron (DRI). Incorporating the Zero Reformer ENERGIRON technology, the facility will integrate carbon capture solutions and be prepared for hydrogen utilization, providing one of the most environmentally sustainable steelmaking solutions currently available.

## Tenova joins RINA's 100% hydrogen-fueled Hydra project

Tenova partnered with RINA on the Hydra project, funded by NextGenerationEU and supported by the Italian Ministry of Enterprises and Made in Italy. The project aims to enable European steelmakers to test 100% hydrogen fuel for greener steel production. Tenova provides a **30-meter high DRI tower**, using **ENERGIRON** technology, and an **Electric Arc Furnace (EAF)**. The pilot plant produces up to seven tons of steel per hour with reduced carbon emissions. The project will help test various hydrogen-natural gas blends and iron ores, providing valuable insights for future investments. The EAF can also process residual materials from steelmaking and other sectors, such as plastics, biochar, and construction by-products, supporting more sustainable resource use.

## SAF and Open Slag Bath Furnace

**Open Slag Bath Furnace (OSBF)** is the perfect solution for melting high-carbon DRI to produce hot metal. The electric furnace, a **Submerged Arc Furnace (SAF)** in this case, works using Söderberg electrodes operating "submerged" in the slag or with a very short electrical arc or "brush arc". The OSBF can tap hot metal into ladles or torpedo cars. The resulting slag produced is similar to blast furnace slag and can be sold to the cement industry. The work done on OSBF slag treatment has identified a potential alternative processing route for the treatment of EAF slag, which is discussed in more detail in the Circular Economy section (p. 30).

## Mineral Wool Applications

Historically, the mineral wool flow sheet made use of fossil fuel-fed Cupola furnace technology, a process with high carbon emissions. Tenova has identified the use of its bespoke **hybrid SAF design** (a SAF using graphite electrodes) to replace Cupola furnaces. This technological innovation has the potential to **reduce mineral wool carbon emissions by up to 90%** depending on the electrical energy carbon footprint. Tenova has references in different countries like US and South Korea and offers this technology to existing mineral wool producers (as a retrofit) or producers planning to expand their mineral wool production capacity.

## iBLUE®

Conventional blast furnace–basic oxygen furnaces or oxygen converters (BF–BOF) dominate global steel production, producing two tons of CO<sub>2</sub> for each ton of steel produced (as a comparison, the EAF route from scrap produces 80% fewer emissions). Modifying their technology is the best route to CO<sub>2</sub> reduction for the steelmaking industry. As of 2023, 57% of global steel was produced via the BF–BOF route, while only 43% was produced via the electric (EAF) process. Tenova's technology to substitute any Blast Furnace is **iBLUE®**, which enables the production of **Liquid Pig Iron** via the **BF–BOF** route while massively **reducing emissions**. iBLUE® combines the production of high-carbon DRI with an electric arc melter (ESF or OSBF) to produce hot metal and granulated slag. It can also utilize BF grade pellets as raw material, making it the perfect substitute for blast furnace technology. The use of green hydrogen in the reduction process can further minimize greenhouse gas emissions.

In 2023, Tenova started a **pilot project** on an **industrial-sized Submerged Arc Furnace** for the production of hot metal and achieved positive results. **iBLUE®** is increasingly confirmed as the **sustainable alternative to blast furnaces** to **convert integrated steel mills** with existing BOFs into "green metal plants". In addition to its environmental advantages, iBLUE® allows steelmakers to maintain existing steel grades production procedures and quality control: from this perspective, implementing iBLUE® does not require the qualification of the production process, and is highly recommended for high-quality steel grades, exposed automotive parts, etc.

A number of projects and studies with steelmakers in different parts of the world kicked off in 2023 and will result in the construction of new iBLUE® plants. The relevance of the technology was further confirmed in 2024 with a successful test conducted in a Swedish laboratory in February. In 2025, at the European level, the decision was made to include **the iBLUE® technology** among the **Best Available Techniques (BAT)** recognised for the production of pig iron from DRI. This recognition represents an important step forward in promoting sustainable and low-carbon technological solutions within the sector. This represents a less costly option to produce hot metal with a minimal carbon footprint and results in minimal disruption to the operations of an integrated steel plant that plans to shift towards green steel production.

## Tulum Energy

On October 31<sup>st</sup>, 2024, Tulum Energy S.A. was established and incorporated in Luxembourg, with equal ownership by Tenova S.A. and Tech Energy Ventures. Tulum Energy is developing **an innovative technology**, initially conceived by Tenova, for the **production of low-carbon hydrogen** from **methane pyrolysis** ("turquoise hydrogen"). Tulum subsequently raised venture capital from a **consortium of institutional, strategic, and financial investors**, as part of a capital increase successfully completed in July 2025.

Tulum's technology aims to produce low-carbon hydrogen (90% CO<sub>2</sub> reduction compared to traditional technologies) on an industrial scale and at **competitive costs**. Its technology could therefore play a significant role in decarbonizing the steel industry. Tulum is currently developing its first demonstration plant in Mexico, at Ternium's site, with start-up scheduled for the end of 2026.



## Combustion Systems for Furnaces

Traditional hot rolling and heat treatment processes utilize fossil fuels, resulting in a high carbon footprint for final products like long or flat steel products. Tenova is committed to developing and deploying **highly efficient low-emissions combustion systems** for reheating and heat treatment furnaces. Since the 1950s, we have specialized in the development of combustion technologies, recently leading to the adoption of **regenerative and self-regenerative burners** to provide about **10% reduction in CO<sub>2</sub> emissions** when firing standard fossil fuels. Furthermore, Tenova's regenerative burners are also **Hydrogen-Ready**: whenever green hydrogen becomes readily available, our clients can immediately use any variable amounts of hydrogen blended with standard fuels and drastically reduce their carbon emissions without any additional investment.

In 2021, we reached a key milestone in this endeavor by developing the first burners for heat treatment furnaces using up to **100% hydrogen**, while keeping NO<sub>x</sub> below the strict emission limits of 100 mg/Nm<sup>3</sup>. Tenova's regenerative flameless burners combine the lowest NO<sub>x</sub> emission level with high temperature combustion air preheating, thus combining a relevant reduction of CO<sub>2</sub> emissions with high combustion efficiency. That means our burners provide clients with improved plant sustainability even before cleaner fuels such as green hydrogen become readily available.

We believe **hydrogen** will play a key role in the **future of combustion systems**. However, many countries and markets are not yet structurally prepared to adopt this technology. Therefore, over the coming years, we are committed to providing our clients with reliable and sustainable solutions that serve as incremental steps toward the energy transition guiding this process with a *"stepwise decarbonization strategy"*.

While our clients and we look forward to the necessary developments in the hydrogen distribution infrastructure, in 2024, we developed a **basic concept study for hybrid burners** which will support steelmakers in pursuing their emission-reduction targets by directly utilizing renewable electricity to cut standard fossil fuel consumption. During the year, we filed intellectual property so that this partially electrified solution allows our clients to use the **clean electricity** already available from the grid in order to reduce their emissions potentially up to 25%<sup>3</sup> while keeping the hydrogen-ready feature for future decarbonization steps.

In a collaborative project with **thyssenkrupp Hohenlimburg GmbH, Tenova LOI Thermprocess** proceeded with **advanced heating hoods** for batch annealing furnaces, featuring our patented **Ultra-low NO<sub>x</sub> HPH®-flameless concept** and increasing air preheating temperatures to 600°C. It achieved up to 12% energy and CO<sub>2</sub> savings. In production trials, the project



aimed to **decarbonize steel production** by gradually shifting the fuel gas supply for the heat treatment of hot-rolled narrow strips from natural gas to 100% hydrogen. Despite the higher combustion temperature, the flameless concept resulted in low NO<sub>x</sub> emissions.

To assess the impact of increased hydrogen use on the overall system, we employed a mobile natural gas/hydrogen mixing station. This allowed us to **test different gas mixtures during annealing cycles**. To this end, Tenova developed the THSQ Burner family that can work with any hydrogen/natural gas mixture while maintaining consistent thermal performance and NO<sub>x</sub> emissions. LOI Thermprocess's bell-type annealing plants are inherently well-suited for hydrogen use. The HPH®-flameless technology further enhances their performance by enabling the lowest NO<sub>x</sub> emission levels while also improving fuel gas efficiency.

<sup>3</sup> This emission reduction percentage is an estimate based on a case-study reheating furnace, representative of our baseline design.

## TenovaLAB

We continuously invest in new **research and development activities** to create cutting-edge technologies that provide low-carbon solutions to our clients in the metals and mining industries. For this reason, between 2023 and 2024, Tenova invested in its own R&D facilities by installing an **experimental laboratory** at our **headquarters in Castellanza**. Our **TenovaLAB** carries out **experimental industrial activities** for the **development and testing** of all **heating technologies**, lately expanding its research activities into electrification technologies. Equipped with **four test furnaces** of varying thermal power, TenovaLAB allows our R&D team to close the loop between our in-house CFD modeling and simulation capabilities and the engineering of industrial products. Lab testing activities, including thermal and emissions measurements, enable Tenova to fine-tune its product specifications, minimizing any technology risk for the end user. Furthermore, TenovaLAB allows our customers to see our products in action in real operating conditions.

During 2024, after we expanded our facilities at TenovaLAB with preparatory works, we completed the **installation of a 1.5 MW water electrolysis unit** directly connected to the solar panels' roofing of our Pomini Workshop. This expansion is partially financed through a Horizon EU grant<sup>4</sup> to demonstrate the full green hydrogen production-storage-utilization route at full industrial scale, from the generation of hydrogen to its blending with natural gas and use in the combustion systems of the different test furnaces at TenovaLAB.



<sup>4</sup>Co-funded by the European Union, Grant Agreement number: 101092087.

# Energy Efficiency

In cases where it is not yet feasible to transition to cleaner fuels, we have developed a suite of technologies to help our clients use their existing fuels more efficiently or adapt their existing processes to reduce their emissions.



## Metals Advancements

### Consteel® EAF

In use for over 30 years and on 80 sites across all continents, our **Consteel® EAF** has proven its value to clients around the world. Consteel® EAF is a process which **preheats** and **continuously charges** raw feed materials, in particular scrap, into an EAF, melting them by immersion in the liquid steel present in the furnace. The EAF operates in constant flat bath conditions, a key advantage over conventional batch processes, where scrap is melted by the direct action of the electric arc. The EAF off-gases are used to preheat the incoming scrap and feed materials. Their composition is controlled and sent to a fume-cleaning plant in conditions suitable

for the complete combustion of carbon monoxide and other pollutants without the need of any fuel consumption (differently from other scrap preheating techniques). This process produces **liquid steel** with **high productivity**, a short and adjustable heat cycle, and a lower power cost compared to other EAF installations using conventional or other alternative steelmaking technologies. To further improve its Consteel® EAF, Tenova introduced additional features, like the Electro Magnetic Stirring technology, such as **Consteerror®**, which improves energy consumption and refractory lining life.

## iRecovery® Captures and Reuses Thermal Heat

Today, **process optimization** and **energy efficiency** to reduce emissions are more important than ever for steel producers. Tenova began working on this over a decade ago, well before other companies were thinking about sustainability in the industry. In the past ten years, we developed the **iRecovery® system** for **recovering thermal power** from EAF waste flue gas and using it as an energy source. This energy comprises the biggest fraction of the primary energy input in the EAF process, yet it typically goes to waste. iRecovery® captures the thermal energy created by the off-gas and uses it to produce steam to power steelmaking and other activities. In Brescia, for example, ORI Martin uses the heat captured with iRecovery® to heat 2,000 homes in winter and power 700 homes in summer, reducing 10,000 tons of CO<sub>2</sub> every year.

In 2023, Tenova developed the iRecovery® solution for application at high pressure, up to 60 bar(g) of steam

produced. This solution increases the applicability of iRecovery® in the transformation process of steelmaking from BF-BOF to DRI-EAF through integration into the existing plants steam distribution network. Tenova coupled **Consteel® EAF** and iRecovery® in order to improve the effectiveness of our technologies: while the high temperature thermal power contained in the waste gases (up to 800°C) is first used in scrap preheating by Consteel® EAF, the Waste Heat Boiler (WHB) downstream uses the recovered residual waste gas energy after scrap preheating. This combination can produce about 90-140 kg/tls of steam.

In 2024 Tenova signed a contract for the supply of two iRecovery® systems for Voestalpine Donawitz new electric arc furnaces to be supplied by Danieli. Each of the systems is sized to produce around 50 tph of steam from each of the 75 t EAF. The first of two furnaces will be put into operation in 2026, with the steam production plants managed by Tenova.

## Multiple Pre-Heater for Ferroalloys production

In 2023, Tenova and one of the world's largest ferrochrome producers successfully brought Tenova's patented **Multiple Pre-Heater (MPH) system** to full performance. The solution recovers the chemical energy contained in the furnace off-gas and uses it to pre heat the furnace feed materials (chrome ore and reductants) before they enter the furnace, thereby reducing the electrical energy required and improving stability of the furnace process.

From a technology standpoint, the **Tenova MPH** concept is based on the combustion of CO rich cleaned off-gas as an energy source. The system can reduce electrical energy demand by up to 15%, while also improving process operability: volatiles are removed from the feed blend prior to the furnace (improving off-gas CO quality), hot and dried feed reduces electrodes movement (supporting stability), and the system architecture (multiple units on a single SAF) enables independent control that reacts to furnace conditions.

### Environmental impact framing:

- The MPH reduces the electrical energy required by up to 15% by using the chemical energy in CO-rich cleaned off-gas.
- If the grid electricity has a non-zero carbon intensity, a reduction in kWh/t FeCr translates directly into reduced indirect (Scope 2) CO<sub>2</sub> per ton of product.
- The MPH is a system that utilizes the chemical energy contained in furnace off-gas as a fuel for feed pre-heating.
- Volatiles are removed from the feed blend prior to the furnace, thereby improving off-gas CO quality.



## Mining Advancements

### In-Pit Crushing & Conveying (IPCC)

IPCC systems represent an innovative and more sustainable approach to materials handling in surface mining operations. Instead of relying on diesel-powered haul trucks to transport run-of-mine (ROM) material from the pit to the processing facility, an IPCC system crushes material or ore directly at or near the mine face and transports it via a network of **energy-efficient conveyors**. This system **increases safety and efficiency**, while also significantly **reducing emissions and lowering operational costs**, furthering the mining industry's **global green transition** and decarbonization goals.



### Gearless Conveyor Drive (GCD) Technology

TAKRAF, together with its drive technology partners, is able to design and supply **conveying solutions** that adopt **advanced GCD technology** into their **drivetrains**. GCDs eliminate the need for a gearbox, thereby significantly reducing the number of **main wear parts**, which results in increased **efficiency and reliability**, as well as **less maintenance** being required. Further significant advantages include a considerable **reduction** in the **drive system's footprint** and **emissions**. In fact, for a large copper mine in Chile, studies showed that CO<sub>2</sub> emissions were reduced by 66% as compared to diesel truck engines for the same copper production volume.

TAKRAF is proud of its position as the **only existing global original equipment manufacturer (OEM)** boasting an operating reference in the **use of advanced GCD technology in conveyor systems** and the important benefits the implementation of such technology provides.

### High-Pressure Grinding Rolls (HPGRs)

Employing HPGRs for grinding is increasingly recognized as a key technology for **improving energy efficiency in ore processing** – comminution is the most energy-intensive of mining processes. HPGRs employ **high pressure** to compress and fracture ore particles between two rotating rolls, which significantly reduces the energy required, especially when processing hard materials. This energy-efficient technology allows for a **reduction in process energy intensity** and, at the same time, enhances **downstream flotation efficiency** by improving particle size distribution and mineral liberation.

### DELKOR BQR Flotation Cells

Efficient and reliable **flotation** is essential for **maximizing mineral recoveries**, and DELKOR's BQR Flotation Cells are designed with this goal in mind. **DELKOR's BQR Flotation Cells**, which now boast DELKOR's proprietary **MAXGen mechanism**, improve the recovery rate of valuable minerals while using less energy, thereby increasing overall processing efficiency.

# Circular Economy

Industrial processes inevitably generate a variety of waste byproducts. At Tenova Group, we are committed to supporting the circular economy by developing technologies that enable the recovery, reuse, and valorization of these materials, reducing their environmental impact. In the metals business, our solutions focus on the efficient treatment and transformation of steelmaking byproducts, such as slag, into valuable secondary materials. In the mining business, our comprehensive portfolio of dewatering equipment is designed to reduce freshwater usage and manage tailings and waste more effectively. Together, these efforts help our clients operate more sustainably across the entire metals and mining value chain.

## Metals Advancements

### Auto Catalyst and Battery Recycling

Melting furnace technology is used to recycle the **PGM's (Precious Group Metals)** contained in spent auto catalysts. As the first generation of electric cars reaches the end of its cycle, there is a real opportunity to **recover valuable materials contained in various electric car systems** (primarily the battery and auto catalyst). Tenova offers both **hydro and pyrometallurgy process paths** to recover these materials.



## Electric Arc Furnaces

The primary production of steel from virgin iron ore is highly energy intensive. This can be mitigated without loss in quality by using **ferrous scrap mixed with DRI/HBI** and other virgin iron units (pig iron / hot metal) when necessary. Quality and availability of steel scrap are therefore important factors, especially considering the decreasing quality of world steel scrap. To this end, we are conducting research and implementing **new industry 5.0 technologies** to manage low-quality scrap in furnaces, improve EAF flexibility, and achieve cost savings while enhancing environmental performance. EAF steel production is already an integral part of the circular economy.

Additionally, Tenova is implementing **innovative approaches to increase the recycling process**, replacing the use of injected coal in the EAF with alternative materials that are byproducts from other

industrial processes, like polymers from waste plastic and by treating EAF process residues, such as slag and fume dust, to recover both metal and mineral fraction for internal use or application in other industries.

In October 2024, Tenova secured a contract with **Tata Steel UK** to supply a **high-productivity Consteel® Electric Arc Furnace (EAF)** and associated equipment for their **Port Talbot plant**. By **replacing** the current **blast** furnaces, the new state-of-the-art production line will significantly reduce carbon emissions while ensuring the continued production of **high-quality flat steel**. This project is a key element of the joint agreement between Tata Steel and the UK government, aimed at the decarbonization of steelmaking in the UK, with an estimated reduction of 50 million tons of direct carbon emissions over the next decade.



## Tenova Goodfellow Inc.'s NextGen® for Dongkuk Steel Mill in Korea

In 2024, Dongkuk Steel Mill Co. Ltd. contracted Tenova Goodfellow Inc. to supply and install its **NextGen®** System at their Incheon Plant in **South Korea**. Designed for a 120-ton AC shaft furnace, the system includes advanced sensors for off-gas measurement, featuring two sampling stations and a central cabinet. With hybrid laser/extractive off-gas analysis, the system **offers fast response times and monitors CO, H<sub>2</sub>O, CO<sub>2</sub>, O<sub>2</sub>, and H<sub>2</sub>**, enabling real-time control and improving

efficiency. Its low maintenance needs also lead to cost savings in hardware and installation. Unlike other laser technologies, **Tenova's patented NextGen® system offers full-spectrum analysis**, enabling complete control without compromising dynamic burner, lance, and fume system suction management. It also provides enhanced water detection and real-time mass and energy balance, essential for controlling both chemical and electrical energy inputs to the **EAF**. In contrast to

in-situ systems, which offer only intermittent off-gas analysis, **NextGen® delivers continuous, simultaneous analysis from all sample locations**. The system uses a high-velocity pump to extract, filter, and clean off-gas before it enters the sample station laser cells, ensuring uninterrupted laser beam transmission. Key components include the gas probe, heated sample line, sample station cabinet, control cabinet, and analyzer server.

## Dry Slag Granulation

The **capture and reuse of currently wasted materials**, such as EAF or ladle furnace slag, is a critical step in the decarbonization of the steel industry. In 2016, the European steel industry generated about 43 million metric tons of slag, of which about 7% – or 3 million metric tons – is not being reused, posing not only a serious environmental problem in Europe, but representing a huge amount of available material for potential **recycling**. Today, slag handling is a costly and time-consuming operation that poses significant safety and operational risks, requires water, and is a potential source of fugitive dust and fumes.

Tenova has developed a **Ladle Furnace (LF) slag granulation solution**, which uses forced air flow to rapidly cool and solidify slag. The fast cooling transforms the slag from liquid to solid, enabling the reuse of slag as raw material in the construction industry. Our solution **decreases workers' exposure to harmful chemicals**

in slag, reducing water use, and the need for virgin lime. Furthermore, we extended our dry granulation technology to EAF slag generated during high alloy steel production via the DRI/EAF process.

In 2023, Tenova was awarded the first contract for the installation of an LF dry slag granulation solution system in Italy, which will process more than 20,000 tons/year of slag. The first of its kind, the plant will be equipped with the **latest artificial intelligence algorithms** to assist production optimizing the granulation process. The granulated product will then be utilized for the preparation of chemicals for the construction industry.

The **air granulation technology** represents an important advancement compared to traditional slag treatment methods. In the first industrial plant started up in Italy in 2025, the granules produced by air granulation maintain superior stability and do not tend to pulverise, unlike traditional granulation where slag easily turns into fine dust. This advantage helps create healthier and

safer working environments by reducing the dispersion of harmful dust into the air and improving operational conditions.

In 2025 Tenova launched on the market the **Tenova LIBS (Laser Induced Breakdown Spectroscopy) technology**, a tool that allows slag analysis without the need for sample preparation, instantly providing the slag's composition both from a metallurgical perspective and for its valorization and subsequent granulation. The system operates by directing a laser beam onto the slag; the instrument analyses the electromagnetic spectrum of the plasma generated by the laser, while a mathematical model, supported by artificial intelligence, enables real-time results.

This instrument can fit easily in an operating pulpit of existing facilities enabling operators to reduce to zero the delay to obtain an **accurate slag analysis**: this speeds up the secondary metallurgy processes and reduces consumption of both electricity and additives.

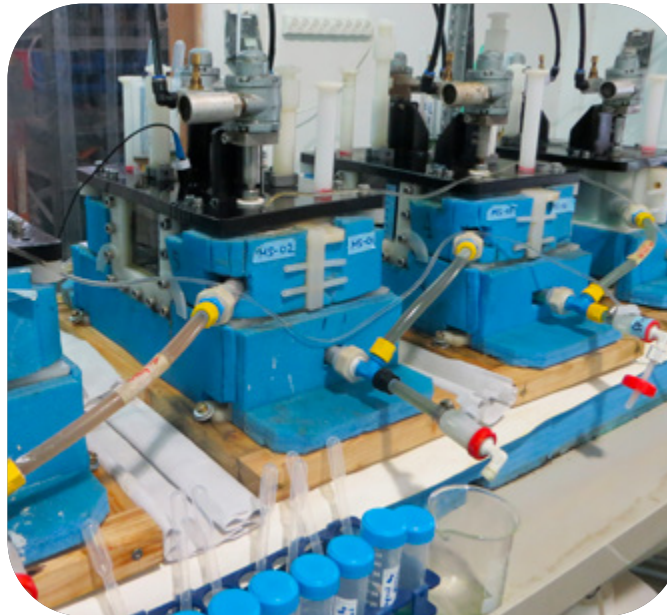


## Lithium Recovery

**Lithium** is widely used in metallurgical processes for **metal melting**, to **eliminate the formation of oxides**, and **absorb impurities**. Its growing use in clean energy technologies, like solar arrays and electric vehicle batteries, make it a **critical metal for a net-zero future**. Building on this potential, Tenova's engineers have studied a number of processes to produce lithium more efficiently. **Tenova Advanced Technologies (TAT)** adapted its Solvent Extraction (SX) technology for producing **lithium from primary sources** to produce **lithium recycled from batteries**. For this project, Tenova Advanced Technologies secured funding from the Israel Innovation Authority to complete the process development from both brine and battery sources. One of the main uses of the funds was the purchase of the **LiEL™ Electrolysis skid** for the TAT Research and Development (R&D) Center in Israel. The new process can be applied across all feed streams, originating from any source, including solar, hard rock, waste recycling, and process waste streams, to produce high-quality lithium hydroxide. The key characteristic of this process is the **high efficiency of extraction**, superior to the traditional process, and a **lower use of water**.

## Rare Earths

Rare earth elements are among the most **sought-after chemicals** worldwide, **essential to modern technology** and everyday life. They are found in devices like smartphones, computers, electric vehicles, wind turbines, and solar panels. Recognized as critical raw materials by both the European Commission and the US Department of Energy, rare earths are vital for **advancing the energy transition** and achieving global decarbonization goals. Tenova offers a range of solutions for a sustainable **rare earths metal extraction**.



## Black Mass and Rare Earth Solvent Extraction

**TAT** specializes in both innovative technology development and robust process equipment for **solvent extraction**. Our experience and expertise in all aspects of SX includes the development of SX processes utilizing an in-house R&D center and detailed design, supply and construction of SX plants.

**Tenova Turbulent Technologies Mixing System** is a new mixing technology which enables **significant reduction of entrainment levels** without changing the process flow. It can be easily retrofitted to most existing mixer settlers or installed in new SX plants. The main advantage of this technology is the reduction of entrainment of expensive extractants, organic contamination in the product stream, aqueous contamination in the loaded organic stream, ecological impact of organics in the raffinate stream, operation, and maintenance costs. It further enables increased settling flux and eliminates the need for after-settlers. Thanks to this technology, our clients are able to **recoup precious metals** such as **lithium**, **nickel** and **manganese** from battery forms.

## The World's Strongest Permanent Magnet<sup>5</sup>

Tenova has designed, manufactured, and commissioned **advanced electrolytic cells** for the efficient commercial production of NdPr metal. Equipped with cutting-edge automation and an automatic tapping system, **these cells ensure operational efficiency, stability, and high product quality.** Our proprietary sensors and integrated control system optimize performance and reliability, supported by auxiliary equipment to enhance plant operations.

This technology has been deployed by MP Materials, marking the **first commercial-scale production of rare earth metals in the USA** in decades. MP has an agreement with General Motors to supply permanent magnets to make **electric cars** in the US, and, to date, it is the only manufacturer of these magnets. At this facility, NdPr metal will be used to produce NdFeB magnets—among the most powerful permanent magnets available commercially, and is essential for vehicles, drones, robotics, electronics, aerospace, and defense. Tenova Group, which initially developed this technology with the University of Toronto, is proud to contribute to this milestone, reflecting our **dedication to innovation and the energy transition.**

## Twin-chamber Furnaces for Aluminum

Aluminum's many useful qualities have made it ubiquitous across all areas of modern life. Additionally, its recyclability makes it a highly valuable material.

**Recycling aluminum** uses up to **95% less energy** than it would take to produce primary aluminum from ore or bauxite, creating fewer emissions. Tenova has created new technologies to further enhance the environmental benefits of recycling aluminum. Our **Twin-Chamber Melting Furnace (TCF®), a Tenova LOI Thermprocess technology,** enables the remelting of up to 6% organically contaminated aluminum or other scrap metal without pre-treatment. Its dual-chamber design includes a post-combustion process to completely incinerate contaminants and use the resulting energy generated for furnace processes, thus reducing consumption of external energy. Our TCF® technology has **30 installations worldwide**, producing approximately 1,500,000 MT of liquid aluminum every year. And for existing casthouses, the application of TCF® to the recycling of post-consumer scrap can significantly reduce the overall CO<sub>2</sub> emissions of the plant, as the process generates only 80 kg of additional CO<sub>2</sub> per ton of liquid aluminum.

## Magnesium Production from Coal Ash

As global demand for magnesium metal rises, **Latrobe Magnesium Limited (LMG)** in Australia uses Tenova's technology to **harvest this metal from fly ash byproduct** – a waste material derived from coal power generation. Originally developed as a recycling process for spent acid used in pickling of steel coils, our **pyrohydrolysis process** was adapted to suit LMG's unique challenge to **recover magnesium** from secondary sources. The related emissions from this technology are roughly half of those of conventional magnesium production plants. Launched in 2022, LMG is currently operating its 1,000 tons per annum magnesia demonstration plant in the Latrobe Valley of Victoria integrating the Tenova Spray roaster unit. From the production experience acquired through this initiative, LMG eventually intends to develop a commercial scale operation producing about 10,000 tons of magnesium metal per year.



<sup>5</sup> <https://tenova.com/metals-insights/worlds-strongest-permanent-magnet>

## Mining Advancements

### DELKOR Thickener

The DELKOR Thickener is renowned for its ability to effectively **dewater process slurries** across various mining and industrial sectors. This enables **significant water recovery** and allows for the reuse of such process water, significantly **reducing freshwater intake**. This is especially relevant in **water challenged areas** in which many mining and minerals processing operations are situated.

The DELKOR Thickener also features an **advanced feedwell design**, employing either auto or forced dilution techniques. This innovative design significantly **reduces flocculant consumption**, typically by 10 to 15% compared to traditional feedwell designs, which further **lowers operational costs** and **enhances** the overall **efficiency** of the thickening process.

DELKOR's supply of seven **60-meter diameter DELKOR high-density thickeners** to the world's largest **thickened tailings project in Chile** (currently still under development) is a testament to DELKOR's thickener technology and its ability to provide a **safe and sustainable** dewatering solution for tailings management.

DELKOR's high density thickener technology helps the mining operation reduce freshwater intake and operate more safely. Its position as a leading global provider of high-performance dewatering solutions is essential for water recycling, for increasing safety and for reducing the environmental footprint of tailings facilities in arid regions such as Antofagasta, Chile.



### DELKOR Horizontal Belt Filters (HBFs)

In line with circular economy principles, **DELKOR horizontal belt filters (HBFs)** offer an efficient solution for resource recovery and waste reduction across various industrial processes. These high-capacity vacuum filtration systems are able to dewater a wide range of materials, enabling both **water reuse** and **more sustainable residue management**. DELKOR pioneered the application of belt filters in acid filtration, and this technology is now widely accepted and employed for tailings filtration too. By supporting closed-loop processes and reducing freshwater intake, HBFs help improve overall operational efficiency and environmental performance across sectors.

### DELKOR Filter Presses

**DELKOR Filter Presses** offer an effective solution for reducing waste and enhancing the reuse of water in both mining and industrial operations. By applying **high pressure** to dewater a wide range of commodities, these systems produce a dry filter cake that can be safely handled, stored, or even reused, depending on the application. Commonly deployed downstream of mineral processing plants, as well as in chemical, fertilizer, and wastewater treatment facilities, DELKOR filter presses support the **sustainable management of tailings and sludge**. Their ability to effectively recover water and significantly reduce waste volumes contributes directly to greater resource efficiency and a lower environmental footprint.

# Impact Monitoring

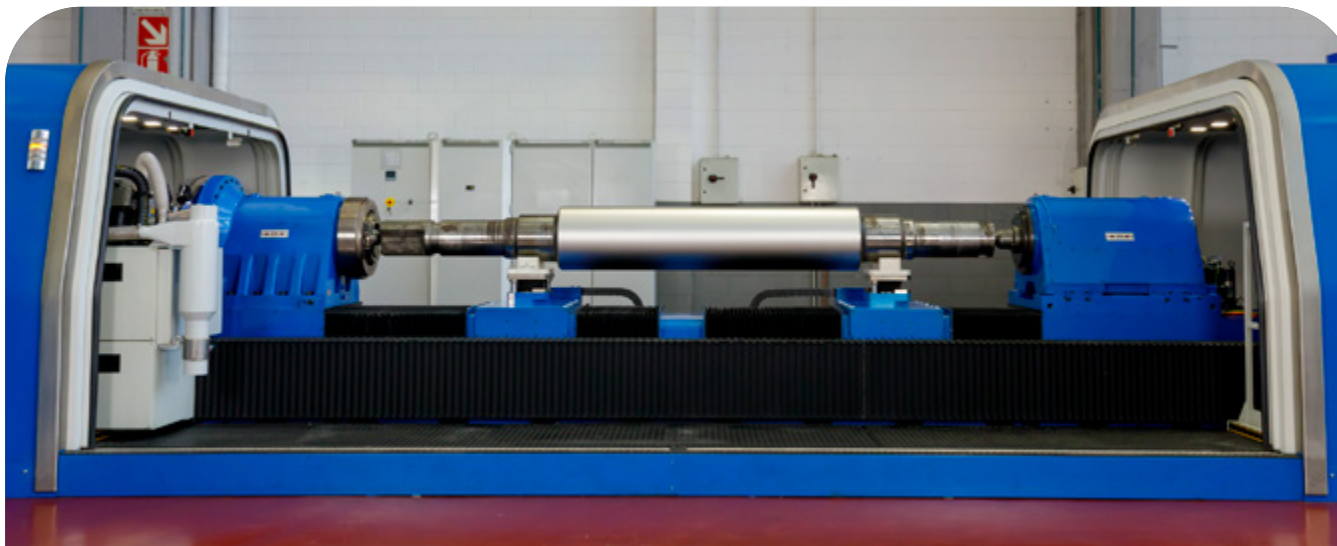
**As a responsible company, we recognize the importance of monitoring the impact of our products and services on the environment and human health. We commit to improving our processes and products to ensure their impact is accounted for throughout their entire life cycle.**

## Pomini Digital Texturing™

Our **Pomini Digital Texturing™ (PDT™)** equipment covers an extensive range of surfaces for **work roll texturing** in **cold rolling mill applications** for both the steel and aluminum sectors. With up to four state-of-the-art lasers, the process requires **minimal power consumption**. A fully digital process, based on modern **fiber-optic laser heads**, PDT™ enables an unparalleled range of surface possibilities compared to any other existing texturing technology.

PDT™ offers benefits beyond energy efficiency. It does not have adverse impacts on human health. Other texturing technologies may require the use of significant quantities of hexavalent chromium to further increase the hardness of the roll surface. **Hexavalent chromium** is a highly carcinogenic material which can be difficult to remove from the environment. PDT™ makes it possible to **significantly reduce**, and even completely eliminate it from the process, making it a much safer and less toxic alternative.

Looking ahead, Pomini Tenova foresees **several impactful potential uses** for the revolutionary PDT™ technology. One use we are currently exploring is in the field of electrolyzers – machines that convert water into hydrogen to be used as a clean-burning fuel, a key enabler of a low-carbon future. A second area of development is in **electric vehicle batteries**. We are exploring the use of PDT™ on aluminum foil to obtain a reduction in intrinsic resistance characteristics through texturing. We look forward to sharing more about these and other potential applications in the future.



## PDT™ becomes “Product Category Rule” through Life-Cycle-Assessment (LCA) as per ISO 14025:2006

In 2021, PDT™ became the first machine in the metal surface finishing sector to complete a **life cycle analysis** (LCA). As a result, the technology was certified as complying with the **ISO 14025:2006 standard**. The LCA analysis was registered on the EPD® Portal – the platform of the International EPD® System, the world’s leading global LCA program operating in accordance with the ISO 14025, ISO/TS 14027, and ISO 14040, among others, standards, and is now accessible to all users. Subsequently, thanks to the experience gained through the LCA process, Pomini Tenova legitimately takes on the position of the “**Product Category Rule**”, the rules, requirements, and guidelines to develop a high-quality EPD for a specific product category, ensuring that functionally similar products are assessed and compared in the same way when measured through an LCA.



# Delivering Safe Products by Design

Tenova Group encourages employees at every level to focus on eliminating potential dangers before they emerge. This means safety starts at the design stage, leveraging the experience, know-how, and innovative approaches of our experts and engineers to build safety directly into products from the start. This unwavering attention to detail has enabled us to build an extensive, multi-decade track record of safe and high-performing products, systems, and facilities.



## Safe Technology for Clients

A **tech-forward approach**, focused on digital technologies, data gathering, data analysis, and dedicated training, enables us to deliver products with **considerable safety advantages**. We build monitoring features, including robotics, smart sensors, and AI, directly into our products. We collect digital data on facility performance and production errors and compile digital report cards for maintenance effectiveness and troubleshooting. These innovations provide real-time and predictive analytics to **enable clients to prevent accidents** and **reduce potential harm to their employees**.

## Metals – Safe Technologies

### Water Detection System (WDS)

Our **Water Detection System (WDS)** enables **EAF process monitoring optimization** by measuring the sound of the water flowing in the water-cooled sidewalls. Additionally, our WDS **monitors leaks and alerts plant operators** when higher-than-normal water conditions are present in the EAF. Tenova's WDS is the only commercially available system that is capable of continuously interconnecting with the EAF off-gas for both H<sub>2</sub> and H<sub>2</sub>O vapor. The real-time EAF process information and NextGen® off-gas hardware include full spectrum analysis of the water conditions in the EAF, which are evaluated for abnormalities.

### Copper cooling systems for SAFs

**Submerged Arc Furnaces (SAF)** for PGM concentrates Tenova's Submerged Arc Furnaces (SAF) are engineered to provide **reliability and safer operation** when processing **Platinum Group Metals (PGMs)** concentrates, supported by an electrically driven process with **high process efficiency at low energy utilization levels**. A key safety-by-design feature is Tenova's patented approach combining graphite with copper cooling to **prevent sulfide corrosion** of copper cooling elements in the furnace sidewall. In this design, the graphite acts as a protective barrier against

corrosion caused by free sulfur present near the sidewall adjacent to the concentrate feed layer, helping preserve the integrity of the cooling system and extending stable furnace operation. Tenova also integrates advanced automation and robotics to reduce human exposure to hazardous areas. In particular, the automated casing addition solution for Søderberg electrodes addresses one of the main contributors to electrode failure by improving the quality standard of electrode casing welding and supporting more stable, safer operations, while removing personnel from a potentially hazardous environment.

Complementing these measures, Tenova's safety portfolio includes **MEGtec™**, an alternative cooling medium approach designed to drastically reduce the risk of explosions caused by leaks from furnace equipment such as sidewall coolers, taphole block, and electrodes, with minimal equipment changes and suitability for adoption in existing operations. Tenova reports that 2024 tests demonstrated no explosion in liquid metal even with substantial leaks from sidewalls or copper coolers using this system. Finally, Tenova's SAF equipment heritage for high temperature smelting includes dedicated cooling and protection concepts (e.g., copper cooling and graphite tiles for sulfur attack) that support robustness in aggressive environments.

### PDT™

**PDT™**, presented in the "Impact monitoring" paragraph (p. 36), is inherently fire risk-free and fully enclosed, thus reducing the exposure of workers to internal processes.

### SAFE+ (Safe Plus) EAF configuration

Our **SAFE+ (Safe Plus) EAF configuration** allows **operators to remain in a comfort area** and **detect several possible critical situations**, like water leakage. The introduction of several robotized operations and remote control of the furnace improves the working conditions of operators in the melt shop, particularly in the area surrounding the furnace.



**Tenova, through its Business Unit Tenova Material Handling (TMH), is developing a main R&D project with the aim of improving the value for clients in terms of safety and workers' wellness.**

**SafeForPorts** is a **pioneering initiative** that leverages **Virtual Reality (VR) and AI** to revolutionize **port operations**, prioritizing **safety** in the maritime industry. The project is part of the Istituto Italiano di Tecnologia's (IIT) **RAISE** (Robotics and AI for Socio-economic Empowerment) and is implemented under Italy's National Recovery and Resilience Plan, funded by the **European Union – NextGenerationEU**, highlighting its significance in driving innovation and safety within the maritime sector.



A combination of **digital twins** and **VR** allows company stakeholders to immerse themselves in port operations and fully understand data, providing solutions. Digital twins enable companies to show their technical teams the global layout of the equipment and train for the operation that will be required. All of this can be presented concisely through the interlinking digital twins with virtual and augmented reality. This **allows the operators to train** without the stress of incidents and builds confidence for when they will operate on real machines.

Thanks to **remote control**, the **TMH machine** can be operated **remotely**, typically in a building. This allows operators to work in more comfortable conditions and increases machine availability, reducing the time for shift changing and allowing the machines to work in poor weather conditions.

The remote control feature has been highly **appreciated by ADI (Acciaierie d'Italia)** which is going to include this operation mode for their **continuous ship unloader** supplied by TMH in 2025.

The SafeForPorts project has gained significant momentum thanks to the **synergies** between **automation teams** in Tenova. A **pilot system** has been implemented to assess the confidence level of a skilled operator while driving the **ship unloader remotely**, i.e., without a direct view of the working area. The goal is to determine whether the working environment reproduced at the remote station provides a **sensory experience comparable to direct view** operation. The evaluation focused on key factors such as visual details, granularity, and realistic perception of each piece of equipment as well as dimensions and sounds. Thanks to all the sensors and cameras installed, the operator is allowed to experience optimized visibility from a remote station as if he were on board the unloader.

**Full Automation** represents the most ambitious goal that TMH wants to achieve. The target is to reach **unmanned operation of TMH Port Machines**. The expected results are: an **optimization** of the **operation sequences** with a consequent **energy consumption reduction, better operating conditions** for operators who will have to supervise the activities but in less stressful conditions, and a **reduction** of overall **operating time**.

## Mining – Safe Technologies

Tenova Group prioritizes safety in all its designs, including the mining industry: both **TAKRAF** and **DELKOR** promote a **holistic maintenance philosophy** that enhances safety, operational efficiency, and reduces the total cost of ownership by integrating maintenance requirements from the earliest engineering stages.

TAKRAF's innovative solutions for **chute maintenance**, from modular or rotatable chute sections, which allow maintenance to be performed in a much safer manner and significantly reduce downtime, to TAKRAF's technology that physically replaces liners safely from outside the chute, all contribute to a much safer work environment. Techniques such as external ultrasonic wear measurement enable planned **maintenance without entry into confined and dangerous spaces**.

TAKRAF continues to design and sell maintenance carts for **elevated and/or steep** belt conveyors. These carts enable the safe and quick access to any point along a conveyor, significantly enhancing safety and efficiency, even in complex terrains with elevated sections and curves.

At Tenova Group, safety is **non-negotiable** and prioritizing it can mean turning down opportunities that do not meet our standards.

In 2024, TAKRAF declined to bid on an important project with a major global mining company **on the grounds of safety**. TAKRAF engineers deemed the required technical operating parameters of the requested machine too extreme and outside of what would be considered safe parameters for slope steepness and technical feasibility. TAKRAF's proposed alternative solution to reduce slope steepness was rejected, leaving TAKRAF with no choice but to **decline to bid, citing significant safety concerns** regarding the operation of such a machine within the required technical operating parameters and harsh operating conditions of the mine site.

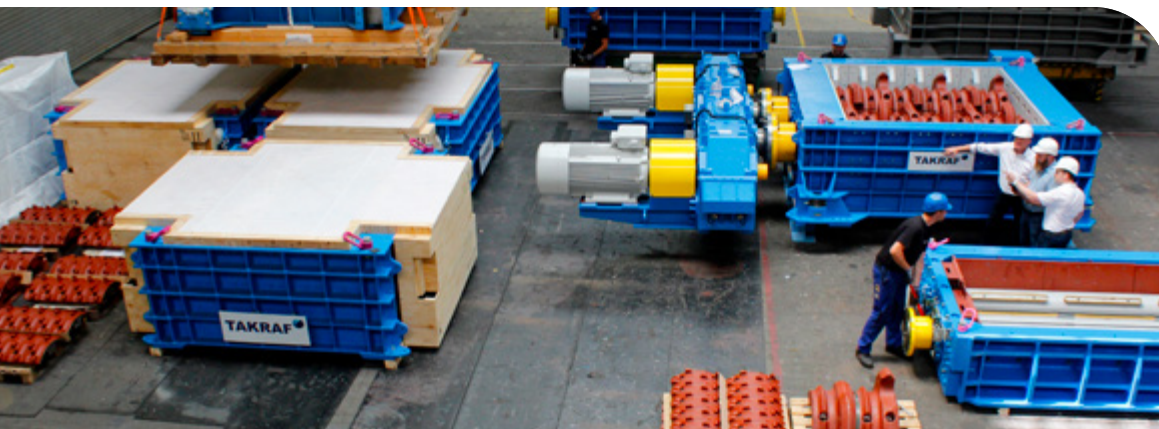
The following content provides further background on some of the **innovations and challenges** that TAKRAF and DELKOR continued to develop throughout 2025, proving that **safety and efficiency can complement one another**.

### TAKRAF X-TREME Class Sizer: Redefining Maintenance, Safety and Productivity

As mining operations adopt more advanced equipment and face tougher conditions, there is an urgent need for maintenance concepts that are both safe and efficient – increasing the protection of workers, whilst at the same time minimizing downtime. While traditional views suggest that increased safety complicates and slows down maintenance, TAKRAF's **X-TREME Class Sizer** challenges this assumption.

Designed according to TAKRAF's holistic maintenance philosophy, the brand's X-TREME Class Sizer combines durability and abrasion resistance, together with a modular-type design to **minimize wear** and **simplify maintenance**. The machine's components allow for quick and adaptable servicing, from replacing individual crushing teeth to roll segments or even entire rolls with reduced disassembly and downtime.

Key features such as a quick-release system, split housing for shaft removal, and integrated sliding units all contribute to increased safety and reduced maintenance times. **TAKRAF** emphasizes that **safety and efficiency in maintenance** are complementary goals, with safer operations leading directly to higher productivity.



## The TAKRAF Sizer Hot-change Method

Another prime example of increased safety and efficiency is **TAKRAF's sizer hot-change method**, which allows for safe and quick swapping between an operational sizer and a spare machine on the same platform, minimizing downtime. For larger operational setups, a checker-type arrangement enables multiple sizers to share a common spare machine, which can be supported by an optional bridge crane for handling, further boosting efficiency.

These solutions allow maintenance activities to occur separately from operations, **improving safety and ergonomics** while **reducing time pressure** that can lead to unsafe shortcuts. While such systems may require higher initial investment, they ultimately reduce overall ownership costs by enabling safer and faster equipment reintegration, maximizing production time.

TAKRAF's commitment to separating operation from maintenance exemplifies how safety and efficiency can go hand-in-hand, proving that **smarter maintenance solutions** are able to combine both increased safety and increased efficiency, without compromise.

## Innovative Tie Rod Replacement on a Ship Unloader: Safe and Efficient Solution

In recent years, TAKRAF's Brazil office was tasked with replacing the **tie rods** connecting the main boom to the counterweight boom of a **Continuous Ship Unloader (CSU)** commissioned in 2002. The challenge was to complete the work safely, efficiently, and within tight time and budget constraints.

Traditional tie rod replacement involves extensive scaffolding to support the machinery, but this method was unsuitable for the project's tight schedule. TAKRAF Brazil's engineering team devised an **innovative solution** by employing a **temporary tie rod** to maintain stability, eliminating the need for scaffolding altogether.

This approach allowed the project to be completed in less than 15 days, 60% faster than by using a traditional approach with scaffolding, and reduced costs by nearly 50%. Importantly, the work was carried out without any accidents and without disrupting other critical equipment, such as the jetty conveyor beneath the CSU.

This project is just one of many examples that highlight TAKRAF's commitment to **innovative, safety-first solutions that optimize efficiency**.

## TAKRAF's Advanced Remote and Condition-Based Maintenance Systems

Bulk material handling systems are the life blood of mining operations, linking mines to processing plants, stockyards, and markets through reliable and efficient material movement and storage. Any disruption in this chain impacts productivity, making maintenance essential. To address this, TAKRAF develops automated solutions that **maximize safety** and **efficiency in maintenance** across mining, material handling, and mineral processing equipment.

TAKRAF's equipment features advanced **Programmable Logic Controller (PLC)/ Distributed Control System (DCS)**-based control systems with built-in protection to **reduce operator errors** and **support troubleshooting**. These systems integrate with clients' asset management, Enterprise Resource Planning (ERP), and Manufacturing Execution System (MES) platforms to plan preventive maintenance effectively. Remote access and support enable software updates and expert assistance via smart glasses, augmented reality tools, and web-based dashboards, showing key performance indicators and maintenance schedules.

**Condition-oriented maintenance** is facilitated through sensors and advanced monitoring tools that track component health, such as idler bearings and belt conditions. Additionally, intelligent lock-out procedures enhance safety by allowing maintenance teams to securely isolate power, increasing safety, and reducing downtime during troubleshooting and repairs.

# Advancing **R&D** Innovation



## Research, Development and Innovation

At Tenova Group, we enhance existing technologies in the metals and mining sectors, while also designing and producing innovative solutions that minimize the environmental impact of our clients' facilities and boost their efficiency and performance. Our solutions reduce CO<sub>2</sub> emissions to some of the lowest levels in the metals industry. We create cutting-edge technologies that **reduce** fine particles, NO<sub>x</sub> emissions, dioxins, and other **hazardous substances**. We strongly believe in the potential of alternative and renewable energy sources, incorporating them into our solutions wherever possible. We have already put **hydrogen-ready technologies** on the market, and many of our solutions are designed around the concept of **recovery, reuse, and circularity**, from dispersed energy to reutilized residues and more, fostering an effective circular economy.

Our innovation process begins with **research, an open-ended, creative ideation phase**, and is followed by development, where ideas with high potential are turned into prototypes of future products. Finally, once tested and finalized, the product is produced and marketed to customers. This process cuts across a number of teams and business units, including engineering, functional units, sales, and more. Our attention to sustainability has been a successful driver of business growth for Tenova Group. We are coordinating our **R&D&I** (Research, Development, and Innovation) efforts across **business units and product lines**, to find integrated, synergistic solutions through collaboration.

Our R&D&I focus areas currently are **energy transition, local environment, process flexibility and efficiency, raw materials and residual valorization, safety**, and **final product quality**. We have identified how each of these focus areas contributes to the United Nations Sustainable Development Goals (UN SDGs). The UN SDGs serve as a useful guide for businesses and society to align on to advance sustainable development. To further our impact, we also participate in national and regional working groups, including EU ones, on sustainable topics like circular economy and decarbonization to generate projects, roadmaps, and partnerships.

## Metals – 2025 R&D projects

**Between 2024 and 2025, Tenova submitted seven proposals for EU and Italian funding for projects covering several areas of interest and involving different business units. Of these, five were selected for funding. Three of them have kicked off in 2025.**

### Slag2Build<sup>6</sup>

The Slag2Build project aims to demonstrate, at industrial scale (TRL 8), the technical and environmental feasibility of a large demonstration dry granulation technology for the treatment of ladle furnace slag (LFS). Unlike the Best Available Technique (BAT) currently adopted in the EU iron and steel industry, this technology relies on a **controlled air-jet collision system** to instantly quench **liquid slag without using water**, thus **preventing** the generation of **dust** and **alkali fumes**.

Slag2Build's innovation lies in transforming an **unstable by-product** into a **valuable secondary raw material** for hydraulic binders, road stabilisers, and cementitious products, addressing both industrial decarbonization and **resource efficiency goals** set by **EU policy**.

<sup>6</sup>Funded by the Research Fund for Coal and Steel (RFCS) GA number 101193261.

<sup>7</sup>Funded by the Research Fund for Coal and Steel (RFCS) Big Ticket programme under GA 101193563.

<sup>8</sup>Supported by the Clean Hydrogen Partnership and its members under GA number 101192534.

### PRISMA<sup>7</sup>

PRISMA is pioneering sustainable practices in the European steel industry, aligning with the **Green Deal** and **Twin Transition** objectives. Central to PRISMA is the development of a **Unified Environmental Data Model (UEDM)**, streamlining **environmental reporting** and **analysis** across the **steel value chain**. Leveraging modern digital infrastructure and platforms, PRISMA aims to quantify and mitigate steel production's carbon footprint through, for example, dynamic Life Cycle Assessments (LCAs) and Digital Product Passports (DPPs).

### SYRIUS<sup>8</sup>

In light of the pressing challenges posed by climate change and the necessity of a transition towards more sustainable and efficient energy systems, the industrial sector is urged to achieve significant reductions of energy consumption and CO<sub>2</sub> emissions. The steel industry stands at the forefront of this challenge.

SYRIUS aims to address such challenges by integrating a **SOEC system** producing **green hydrogen** into a real **steel manufacturing plant** with a **slab reheating furnace**, integrating **heat and water recovery** and **steam generation**.

Moreover, **two additional projects** have been selected for funding, and the administrative formalization is currently ongoing with the EU Commission:

- **EU Research funded by RFCS Big Tickets call SuperHeat:** The SUPERHEAT project aims at developing, integrating and demonstrating a novel electrified burner (eBurner) technology for CO<sub>2</sub>-neutral steel reheating for hot rolling process with improved energy efficiency and source flexibility, and without affecting core quality indicators of the process.
- **EU Research funded by RFCS call REVOLUTE:** REVOLUTE objective is to optimize the cold rolling process through the development of a lubrication procedure integrating a novel laser technology for work rolls texturing and the use of easily disposable and sustainable industrial lubricants to reduce energy costs, to reduce environmental impact and to improve product quality.

Furthermore, in 2025 we have made significant progress on the following projects:

## HyTecHeat<sup>9</sup>

In 2022, Tenova was awarded a Horizon Europe project to demonstrate blended green hydrogen and fossil fuel firing in industrial furnaces. The HyTecHeat project aims to **advance hybrid heating technologies** by evaluating their effects on steel product quality, refractories, and overall heating processes. Industrial tests on real burners across three European sites will support the steel sector's transition to hydrogen. Tenova's demonstrator at TenovaLAB has been selected as a key example for hydrogen use in industrial reheating furnaces.

Initially, Tenova combined modeling and experimental testing to develop industrial burners capable of using hydrogen with conventional fuels in varying ratios. We will also provide an industrial-scale combustion system fueled by green hydrogen to validate its technical feasibility in industrial furnaces.

At TenovaLAB, existing equipment currently supports full-scale combustion systems using natural gas. Adapting the facility for hydrogen involved two approaches: hydrogen trailers or on-site hydrogen production. Due to capacity limitations of trailers, continuous on-site hydrogen production is preferred. Accordingly, Tenova installed a **1.5 MW alkaline electrolyzer** that employs the advanced Dragonfly® system – developed by De Nora, a company specializing in electrochemistry and sustainable technologies – to produce green hydrogen from renewable electricity. The hydrogen is stored in pressurized buffer vessels at 30 bar, then expanded to

<sup>9</sup> Co-funded by the European Union GA number 101092087.

0.3 bar before feeding the hydrogen-ready TLX burner prototype (350 kW) installed on the test furnace. This burner operates under real industrial conditions with natural gas/hydrogen blends and oxygen-enriched air.

The combustion system's PLC integrates control and safety signals with the electrolyzer's PLC and hydrogen buffer pressure loop, decoupling hydrogen production from consumption. This design allows the hybrid burner to closely follow furnace thermal demands while overcoming electrolyzer turndown limitations.

Additionally, the project integrates a **comprehensive hydrogen storage system** provided by Snam, a leading European gas infrastructure operator, ensuring safe and efficient handling of hydrogen produced on-site. This setup is part of a broader HyTecHeat initiative, with € 3.3 million EU funded, which includes multiple demo cases

focused on hybrid burners and the progressive transition to 100% hydrogen use in steel reheating. The project targets significant reductions in Scope 1 CO<sub>2</sub> emissions, with potential EU-wide savings of 7.5 to 25 million tons annually.

The demonstrator highlights critical challenges in green hydrogen adoption at industrial sites, including:

- Flexibility of hydrogen production and consumption.
- Integrated control of combustion and electrolyzer systems.
- Efficient storage of surplus green hydrogen for later use.

By encompassing the entire production chain – from green energy generation via photovoltaics to hydrogen production, storage, and furnace operation – HyTecHeat sets a benchmark for safe, efficient, and scalable green hydrogen integration in sustainable steel manufacturing.



## NGEN

The **ArcelorMittal Dofasco-led consortium**, in partnership with Tenova, developed a smart technology platform to digitally transform the secondary ladle metallurgy facility at ArcelorMittal Dofasco, Canada. The project enhanced the understanding of digitalization in heavy manufacturing, an area that often lags behind other industries. Key insights were gained in process execution for **implementing intelligence, establishing data flow standards, and understanding the impact on the workforce**, all crucial insights as global industrial economies move toward digital transformation.



## InSGeP<sup>10</sup>

The InSGeP project, “**Investigations of Slags from Next Generation Steel Making Processes**”, is a European research initiative co-funded by the **EU Research Fund for Coal and Steel (RFCS)**, launched on July 1<sup>st</sup>, 2023. As the steel industry shifts to low-emission processes like direct reduced iron, hot briquetted iron, hydrogen plasma smelting reduction (HPSR), and electrical smelting, understanding byproducts like slag is crucial for maintaining a zero-waste approach. The project aims to **identify slags produced by future steelmaking processes** and explore their **valorization** within the **existing value chain**. It seeks to define innovative applications for slag to ensure a smooth transition without disrupting industries that rely on it, such as road construction and cement production.

The project involves 13 partners from Austria, Belgium, France, Germany, Italy, and Spain, including 5 steelworks, 6 research organizations, and 2 suppliers. It will use limited quantities of slags from next-generation steel production and conduct laboratory, pilot-scale, and industrial-scale tests. The slags will be evaluated for their chemical, mineral, environmental, and physical properties, with various cooling and granulation methods applied for different applications. Testing will include using slags in road construction, cement production, liming material, and 3D printing.

<sup>10</sup> Co-funded by the Research Fund for Coal and Steel (RFCS) GA number 101112665.

## iSteel-Expert<sup>11</sup>

iSteel-Expert is a remote virtual system that **monitors steelmaking operations 24/7**, analyzes data, and suggests actions to optimize the process. Acting as a human expert, it collects and analyzes furnace data, **improving maintenance and decision-making**. Powered by IoT, it enhances human management by detecting relevant events and identifying their impact. The system integrates a **knowledge-based approach** through an interactive, immersive training tool, helping preserve, transfer, and evolve the company's knowledge base. The main objectives pursued are the preservation and evolution of the company's knowledge, increasing process efficiency, improving equipment condition and maintenance, and reducing environmental impact.

<sup>11</sup> Co-funded by the Research Fund for Coal and Steel (RFCS) GA number 101112102.



### LIFE H2Reuse<sup>12</sup>

In the production of **seamless stainless steel** and **nickel alloy precision tubes**, bright annealing is crucial for achieving the desired properties. This process, conducted in a vacuum or controlled atmosphere with reactive gases, minimizes surface oxidation, resulting in a brighter surface, a thinner oxide layer, reduced hardness, increased ductility, and fewer internal stresses. It also lowers the risk of corrosion, cracking, and distortion. **Bright annealing** is performed in a hydrogen (100% H<sub>2</sub>) atmosphere at temperatures between 1,040°C and 1,200°C, followed by rapid cooling. In continuous plants like **Tenova LOI Thermprocess**'s at DMV, hydrogen is dispersed after use, leading to wasted resources.

The LIFE H2Reuse project aims to **mitigate the environmental impact** of bright annealing by recovering and reusing wasted hydrogen as fuel in hydrogen burners. This innovative solution, still under development, will be tested in real environments to meet technical, environmental, and socio-economic KPIs.

The process will be applied to Tenova's roller hearth furnace plants, which also use hydrogen-rich atmospheric gas, offering the potential for reduced carbon footprints, resource savings, and cost reductions. The main targets concern **emission reduction, energy savings, and resource efficiency**.

#### GHG EMISSIONS:

**Baseline:** 990.23 tons of CO<sub>2</sub>eq/year  
**Project-End:** 618.34 tons of CO<sub>2</sub>eq/year  
**Savings:** 372.75 tons of CO<sub>2</sub>eq/year

#### RESOURCE EFFICIENCY:

**Baseline:** 0 tons/year  
**Project-End:** 32.65 tons/year of hydrogen recovered

#### ENERGY SAVINGS:

**Baseline:** 1.85 GWh/year  
**Project-End:** 0.98 GWh/year  
**Savings:** 870 MWh/year

<sup>12</sup> Funded by the European Union GA number 101156487.

## Mining – 2025 R&D projects

In 2025, Tenova's mining business continued to promote its internal global R&D innovation program dubbed the "**Innovation Challenge**." Now in its third year, the program is open to all TAKRAF and DELKOR employees across all global business units. In consideration of the business's commitment and sustainability statement, the Innovation Challenge ideas must align with **ESG themes**, namely focusing on: energy-efficient technologies, environmental impact reduction, circular economy, and low-carbon transition.

This initiative **aims to support the business's sustainability goals** and, at the same time, **develop a culture of innovation** and **shared value creation**, where employees are the fuel of the business, and strengthen the alignment between people and vision.

In a strong display of commitment, the 2025 challenge garnered another **impressive eighty applications**. The three winning projects included: i) **innovative flotation cell rotor and stator manufacturing** that reduces operational costs and enhances sustainability; ii) **intelligent and effective separation and removal of trash** from belt linear screens, and iii) **disposable seal strips** specifically designed for DELKOR Belt Filters. The mining business's Innovation Challenge for 2026 is poised to be a transformative initiative that builds upon the momentum generated previously; as such, 2026 will not feature a new challenge. Instead, the business will focus on advancing and putting into practice the ideas that have previously been put forward.

### TAKRAF Systems focused its R&D activities on various internal projects:

- **State-of-the-art calculation tools** in collaboration with renowned international Universities
- **Integration of advanced landscape visualization** in machine automated operation.
- Building on R&D work from previous years, TAKRAF continued to refine the **dry-stack tailings conveyor test rig**, which analyzes material behavior and defines the conveyability of bulk materials on conveyor belts, enabling such TAKRAF equipment solutions to be designed to meet exacting project and customer requirements.

### TAKRAF Products continued to focus its R&D activities on various internal projects:

- Building upon the fundamentals for additive manufacturing, TAKRAF focused its attention on the **development** and **testing** of specific **welding procedures**. The goal is to be able to **rebuild worn-out components** rather than scrapping them. Not only are there significant **environmental advantages** to rebuilding, but significant **cost savings** are expected together with shorter lead times.
- **Robotized welding and 3D-printing**
- Investigation of **alternative raw materials** to address acute **material supply shortages** as a result of tariffs and export restrictions.
- The fostering and extension of TAKRAF's position as a leading global supplier of **heavy engineered pulleys** for **high tensions drives**.

### DELKOR also continued to focus its R&D activities on various internal projects:

- Continuation of DELKOR **filter press design refinements**, together with larger filter press sizes. DELKOR's filter presses offer advantages such as a compact footprint, ease of operation and high dewatering efficiency. They are essential for processes such as dry stack tailings (DST) which require dry solid waste and clean filtrate for reuse.
- Continuation of **separator development** with the conclusion of the design concept and prototype development for detailed testing in the future.



## Digital Transformation

**Digital technologies** are **revolutionizing the metals and mining industries**. This is why Tenova Group not only integrates digital solutions into many of its technologies but has also created a digital strategy and team to stay ahead of the curve. Our strategy places customer value and sustainability at its center, helping us stay focused in a rapidly evolving space. It leverages technologies such as **AI, machine learning, and data analytics**. These technologies are used both to increase efficiency and reduce environmental impacts for our clients, improving efficiency of internal processes.

### Adopting a Digital Mindset

To continue to optimize productivity through our new hybrid working model, we encourage our employees to adopt a digital mindset, seeking digital solutions to solve problems across categories from smart working to Industry 4.0 integration. The ambition of our digital mindset is to promote a deep cultural change wherein our teams understand and harness the pioneering modern technologies that could revolutionize our industries.

Some of our activities to advance a **digital mindset** have been around the deployment of specific tools and technologies to educate employees and raise their awareness about digitalization processes. We have several technological systems in place to support remote collaboration in Tenova and with our business partners as well, including the **Project Management Platform** and the **Supplier Portal**, all accessible on multiple, user-friendly devices.

For the last three years, our **Project Management Platform** has been providing an accessible **central repository of all project information**, such as relevant documents and procurement plans, which help set up Tenova's teams for success. In 2025, we started **enhancing the platform** with new features based on Gen-AI technologies to reduce repetitive processes and errors, therefore increasing efficiency and enabling employees to spend their time in value added activities. We value the **introduction of new tools** and support our **employees with additional training** to familiarize them with these innovations, enhancing their connection with one another, while also emphasizing the importance of **protecting sensitive information** through **high cybersecurity awareness** and a thorough understanding of Tenova's **procedures** and **guidelines**.

### Empowering Innovation with AI

To further foster innovation and collaboration within our organization, we have introduced a **dedicated community** known as the **AI Garage**. This initiative is designed to **facilitate the sharing of knowledge, practical know-how, and experiences related to the use of artificial intelligence** both within Tenova and beyond. The AI Garage serves as a platform for open dialogue on AI topics, encouraging employees to exchange insights and learn best practices from one another.

Moreover, the AI Garage aims to act as a **catalyst for new ideas**, supporting the development of AI agents that enhance and streamline our business processes.

By bringing together diverse perspectives and expertise, the community helps to generate solutions tailored to real operational needs, strengthening our capacity to innovate and adapt in an increasingly digital landscape.

During 2025, Tenova **initiated** several **AI-driven projects** aimed at enhancing operational efficiency and customer service. In particular, the **"AI for Proposal"** project leverages artificial intelligence to streamline and optimize the creation of technical specification, ensuring faster turnaround and improved accuracy. The Service Desk Chatbot was launched to provide immediate, automated support to employees and clients, handling common queries and facilitating smoother interactions. Additionally, the **"AI for Legal"** initiative focuses on contract analysis, using advanced algorithms to review and extract key information from legal documents, thereby supporting the legal team in risk assessment and compliance activities.



## Supporting Client Engagement

In addition to the digital features embedded in our products, we want to provide the best possible **customer service**, so we have created several systems to help employees communicate effectively with customers. Customers have access to our **Tenova Digital Portal** where they can request support for specific products and order spare parts. The portal is regularly updated with new features. Among these services, the **ESPC (Electronic Spare Parts Catalog)** allows clients to browse and request spare parts efficiently through an interactive digital catalog. For Pomini customers, the **IPA (Inspektor Performance Analyzer)** service provides advanced data analysis derived from the Inspektor system. The **TenovaLAB** Experiments section offers access management and reporting functionalities for experiments conducted within the TenovaLAB research environment. Furthermore, the **Product Portal section** allows customers to consult user and maintenance manuals for selected Tenova products. Lastly, the Slag Granulation tool allows users to perform detailed analyses of slag granulation potential based on its chemical composition, supporting a more informed and sustainable decision-making process.

During 2025, the **first customer oriented AI Agent** was launched on the **Tenova Digital Portal**: its aim is to support customers to solve maintenance issues.

The Tenova Digital Portal also features the digital twin

of its reheating furnaces – the digital twin simulates the normal behavior of real equipment, and the feature allows customer to perform simulations and optimize furnace consumption and emissions.

### Some of the proprietary digital tools we have developed include:

- **Tenova IIoT Platform** is the IIoT platform developed in partnership with Microsoft, which facilitates communication with our customers. Its purpose is to **retrieve plant data** and **analyze** it to develop new services and **AI applications** which help customers use and maintain their equipment. Additionally, the adoption of the Tenova IIoT platform enables the application of our proprietary mathematical models, including those used for the thermal simulation of reheating furnaces. This innovative use of models also allows us to provide new services to our customers: for instance, the thermal model of reheating furnaces could be used by our customers as a simulator to gain insights on possible improvements in equipment operation.
- **Emission Impact Dashboard** One of the new features introduced to the Tenova IIoT Platform is the **Emission Impact Dashboard**. This tool is designed to track the emissions produced by the cloud services utilized by the platform. Consequently, it enables the monitoring and demonstration of the environmental impact

of Tenova's products and technologies across the entire value chain, extending beyond the equipment installed at customer sites.

- **Tenova EDGE** is the **field gateway** developed by Tenova, which allows the customer's plant to connect in a standard and secure way to our IIoT Platform. The EDGE device also has the capability to host and automatically manage the update of developed machine learning models and AI applications.
- **Tenova adVISOR** is a **virtual assistant** that provides suggestions on **product maintenance** and **operation**. It can be used on a mobile device and provides real-time updates. The tool's remote assistance feature, available on mobile and wearable devices, offers support to field operators..
- **Tenova Electronic Spare Parts Catalog** enables customers to easily **select spare parts** with fewer mistakes by connecting to the customer's portfolio database, accurately identifying the required part.

In addition to projects related to the digital transformation of processes, Tenova strives to develop digital solutions that reduce the environmental impact of our customers' plants and launch these solutions on the market. Notable launches have included the inauguration of **TenovaLAB in Castellanza**, which was established to conduct experiments and R&D in burner development, facilitating the completion of our Smart Burner platform.

# Tenova Group's **Responsible Approach**



# Our Environmental Impact

As a Group, Tenova has long recognized the harmful impacts that climate change has on the planet. That is why we strive to help clients mitigate that impact through our products, technologies, and services. Alongside helping our clients, we are also taking steps to monitor and reduce the **environmental impact of our own operations**<sup>13</sup>.

Due to the nature of our core business, the Group's own **energy consumption** and direct **CO<sub>2</sub> emissions** largely stem from a **few productive sites and laboratories** (located in Canada, Germany, India, Israel, Italy, and Poland) which account for most of the Group's energy consumption, and our **corporate offices**. Due to the minor scale of our in-house consumption, our direct carbon footprint can be considered negligible when compared to our value chain.

Nonetheless, to provide a transparent view to all our stakeholders as well as to gain a clear understanding of where to focus our adaptation efforts internally, the Group actively **monitors and reports information** related to **energy consumption and emissions** within the organization.

Furthermore, the Group's commitment to reducing its environmental impact has led to it being **ISO 14001 – Environmental Management Systems** certified at the Castellanza and Genoa (Italy) sites of Tenova, as well as at TAKRAF's Leipzig and Lauchhammer (Germany) and Australian sites.



<sup>13</sup> Tenova East Europe LLC (Tenova's subsidiary based in Russian Federation) is currently not integrated into centralized monitoring initiatives. Thus, it is not included in this Report.

# Our Energy Consumption and Emissions



Landmark **projects with leading steel producers** that advanced decarbonization through DRI, Electric Arc Furnaces, hydrogen-ready and circular technologies



**TenovaLAB** selected as a European demonstrator for **hydrogen-based industrial reheating technologies** through the HyTecHeat project



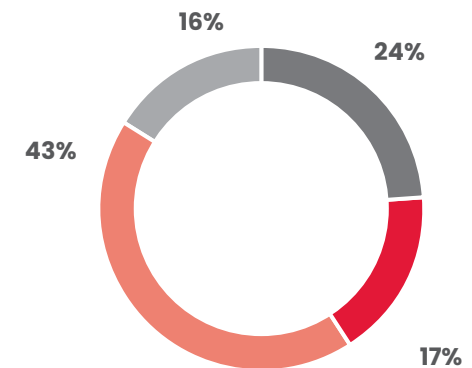
**5 out of 7** EU and Italian R&D proposals selected for funding, with **3 projects launched** in 2025

## Energy Consumption

The **Energy consumption**<sup>14</sup> of Tenova Group is relatively limited, as its core business is not related to energy-intensive activities. The most significant component of the Group's energy consumption is **Electricity Consumption**, which amounts to 30,339 GJ and accounts for 43% of total energy consumption (down from 28,535 GJ in 2024). This is followed, in descending order of impact, by **Fuel used for productive purposes** (17,284 GJ in 2025, down from 18,522 GJ in 2024), **Fuels used for fleet vehicles** owned by the organization or long-term leased (12,452 GJ in 2025, compared to 11,172 GJ in 2024), and **Steam consumption** (11,154 GJ in 2025, up from 9,062 GJ in 2024).

Also in 2025, with the aim of reducing its environmental impact and supporting the transition towards a more sustainable energy model, the Group continued to invest in **self-production systems for electricity** using exclusively **renewable sources**. During the year, over **1,070,000 kWh of green energy** were generated (representing a **6% increase** compared to 2024), approximately **15% of which was fed into the national power grid**, thereby contributing to expanding the share of renewable energy available at the local level and curbing dependence on fossil fuels.

## Breakdown of Energy Consumption within the Organization (2025)



- Fuels used for productive purposes
- Fuels used for fleet vehicles owned by the Organization or long-term leased
- Electricity Consumption
- Steam Consumption

<sup>14</sup>Following an improvement in the data collection system, 2024 Energy consumption data have been restated compared to what was published in the previous Sustainability Report.

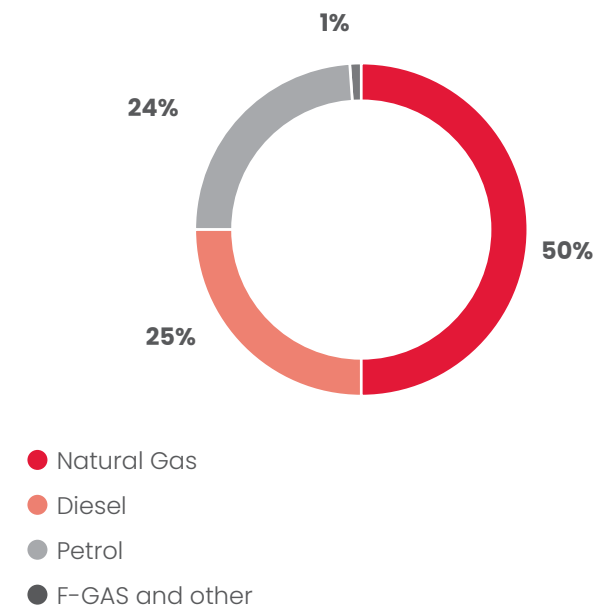
## Our Emissions

Tenova Group has intensified its efforts toward the definition of a decarbonization pathway aimed at limiting its environmental impacts through the development of a structured **greenhouse gas emissions monitoring system**. In particular, during 2025 the Group continued its commitment to quantifying **Scope 1 and Scope 2 emissions**<sup>15</sup> across all its operations<sup>16</sup>. Furthermore, Tenova Group is actively progressing in its efforts to expand its **emissions monitoring system** to encompass emissions occurring across the **value chain: Scope 3 emissions**. **Scope 1 emissions include emissions**

**considered as direct**, deriving from the combustion of **sources owned or controlled by the Group** for activities such as heating and vehicle use. In 2025, the Group's Scope 1 emissions amounted to **1,845 tCO<sub>2</sub>e**, broadly in line with last year (i.e. 1,836 tCO<sub>2</sub>e). Of these, **55%** is attributable to **stationary assets**, such as offices, plants and other fixed installations, while the remaining **45%** derives **from vehicle use**. The primary emission sources are **natural gas** (50.4%), **diesel** (24.6%) and **petrol** (23.7%), with a residual share attributable to **F-GAS and other emissions** (approximately 1.3%).

Among the Group's entities, **Tenova S.p.A.** (Italy) confirms itself as the highest-impact one, with Scope 1 emissions of **862.6 tCO<sub>2</sub>e**, accounting for 86% of the category total

### Scope 1 Emissions by Source (2025)



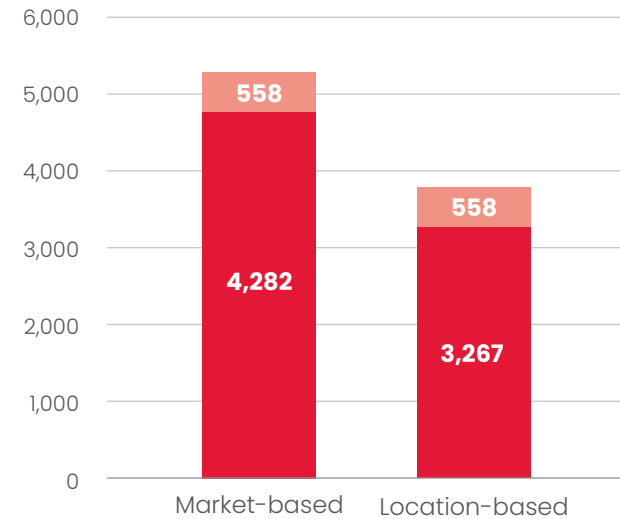
<sup>15</sup> Following an improvement in the data collection system, 2024 Emissions data have been restated compared to what was published in the previous Sustainability Report.

<sup>16</sup> For the Scope 1 and Scope 2 analysis, are included all the Companies within the Group that either hold utilities or own vehicles in their fleet.

Regarding **Scope 2 emissions**, deriving from the consumption of **electricity and heat purchased** from renewable or non-renewable sources, the analysis was conducted according to both **location<sup>17</sup> and market-based<sup>18</sup>** methodologies.

In 2025, Scope 2 emissions calculated using the location-based methodology amounted to 3,777 tCO<sub>2</sub>e, broadly in line with the 2024 level of 3,768 tCO<sub>2</sub>e. Emissions calculated using the **market-based** methodology totaled **5,238 tCO<sub>2</sub>e**, reflecting an 8% increase compared to 2024, when they amounted to 4,839 tCO<sub>2</sub>e. Overall, the Group's energy needs continue to be predominantly met through **non-renewable sources**, with electricity representing the primary source of emissions, followed by **thermal energy**.

### Scope 2 emissions – market and location-based (2025)



- Electric Energy
- Thermal Energy

The largest contributor to Scope 2 market-based emissions is TAKRAF's main production site in **Lauchhammer** (Germany), accounting for **1,117 tCO<sub>2</sub>e**, making Germany the country with the highest Scope 2 market-based emissions overall, at 1,560 tCO<sub>2</sub>e. Italy and India, which host Tenova's and TAKRAF's production sites respectively, also rank among the top-emitting countries, with **1,433 tCO<sub>2</sub>e** and **1,195 tCO<sub>2</sub>e** respectively.

Alongside our commitment to monitoring and disclosing energy consumption and emissions, we have also implemented concrete actions to actively reduce our energy footprint.

Since **2018**, we have been operating an **energy monitoring system** at our **most energy-intensive site** in **Castellanza** and established a working group focused on reducing energy and gas consumption across our Italian operations. In **2024**, we took **further steps**: we replaced traditional lighting with LEDs across various sites, mitigated HCFC (Hydrochlorofluorocarbon) leaks, promoted remote working to cut transportation emissions, and approved energy-efficient renovations. In Castellanza we completed the renovation works on the Avancorpo building, while we expect the Crono building to be completed by 2027.

<sup>17</sup> Location-based methodology: emissions calculation using the average electricity generation mix of the local grid where the energy is consumed, regardless of the company's procurement choices.

<sup>18</sup> Market-based methodology: emissions calculation based on the company's energy procurement choices, such as contracts with renewable energy suppliers or green energy certificates.

## Phase 2 of Tenova's Photovoltaic Project

Driven by our commitment to **decarbonizing our operations** and increasing **energy self-sufficiency**, we invested in a photovoltaic system on the 9,000 sqm roof of our Pomini workshop. Operational since September 2023, the system includes **1,781 high-efficiency monocrystalline panels**. Around 84% of the generated energy is self-consumed, helping reduce our carbon footprint and powering key processes like roll grinding.



Building on this success, in 2025 we executed **Phase 2** of the photovoltaic project at our Castellanza Campus, further expanding our on-site renewable energy generation. In the fiscal year 2025 alone, the original photovoltaic system generated **1,016,306 MWh of clean electricity**, already contributing significantly to the energy needs of the Campus and workshop. With the completion of the second phase of the project, the solar installation will reach a total installed capacity of around 1,880 kWp, combining the existing capacity of 999 kWp with the additional 881 kWp introduced in Phase 2. The Castellanza Campus will generate around 60% of its total energy demand and power **all workshop manufacturing with 100% green energy produced on site**. Looking ahead, further developments related to the photovoltaic system are already under evaluation, as part of the continuous pathway toward increasing on-site renewable energy generation.

**We are steadily progressing on this journey, with our latest initiatives reflecting a tangible step forward in reducing our environmental footprint:**

- **Pomini's New Compressor:** A new **Industry 4.0 compressor** was introduced in 2025, allowing to cut energy consumption for compressed air production. Thanks to this innovation, we registered a 40% boost in energy efficiency for compressed air production in the Castellanza workshop.

- **Hydrogen Electrolyzer:** Since 2024, the Tenova Campus has been equipped with a H<sub>2</sub> electrolyzer for research and development activities. The integrated hydrogen production and storage plant has been strategically installed in the area adjacent to TenovaLAB, our advanced testing facility for the development of high-efficiency, low-emission combustion solutions.
- **Energy Task Force (Castellanza):** We have created a **permanent working group on energy efficiency**, led by our QHSE Coordinator, together with the Operations Manager of the Pomini Workshop and Maintenance Managers of the workshop and offices. The group holds periodical meetings and develops specific projects.
- **Electric Vehicle Charging:** In 2025, we delivered 53.82 MWh to our Castellanza charging stations for electric and hybrid cars.
- **Officina BIO:** In 2025, wherever possible, we replaced the synthetic oils in use at Pomini workshop with oils of vegetable origin. Currently, both our PDT™ and cooling circuits of the Innse-Berardi milling machine use oils of vegetable origin.
- **Smart LED lighting at TAKRAF (Germany):** We have installed **LED lights** equipped with **daylight and movement sensors** that automatically regulate light activation, allowing **savings of up to 70% in electricity consumption**. In 2025, this allowed a total saving of 32,143 kg of CO<sub>2</sub>e in the TAKRAF Lauchhammer workshop.

In addition to efforts to optimize energy consumption and reduce emissions, Tenova Group is committed to the **efficient management of other environmental resources**. Although these do not represent a material topic due to their limited use within the company's core business, the Group promotes initiatives and projects aimed at their **efficient and responsible use**. In particular, we recognize **water** as a vital and increasingly scarce resource and therefore adopt **responsible management** practices aimed at limiting its use wherever possible. At the same time, we pursue strategies to **minimize waste** across our operations.

Our approach to **water management** is fully aligned with applicable environmental regulations and guided by **principles of sustainability and conservation**.

At our Castellanza site, for example, water is withdrawn from an on-site well to load the fire tank that feeds hydrants, to irrigate landscaped areas, and load hydraulic power units to test roll grinders. If water is mixed with oil or other solvents, it is discharged temporarily into a tank and subsequently disposed of as wastewater, following regulatory guidelines. For our Genoa and Castellanza sites, water for daily employee use is withdrawn from the aqueduct and discharged into the sewer. Water withdrawn from wells and discharged water quality are monitored annually through chemical analysis. Wastewater is monitored through chemical analysis every six months. Data are shared with management every year.

Additionally, we have installed water refilling stations and offer reusable dishwasher-safe cups to encourage the use of reusable bottles over single-use plastic ones.

Over in India, TAKRAF's plants are equipped with **rainwater harvesting facilities**, so as to capture and store this precious resource during rainy seasons. Additionally, plastic water bottles have been replaced with reusable and recyclable glass bottles to reduce plastic consumption.

**Waste management** is also a key area of focus for Tenova Group within its broader environmental and sustainability strategies. Our approach is based on responsibility, efficiency, and **full compliance** with all **applicable local laws and regulations**, ensuring that all waste generated by our activities is managed in a safe, traceable, and environmentally sustainable way.

Given that most of our operations are located in office buildings, with only a few small-scale manufacturing sites, the majority of the waste we produce is **non-hazardous**. However, in cases where industrial waste is generated, it is handled by authorized and specialized third-parties that ensure proper treatment and disposal.

In line with our commitment to **a circular economy** and reduction of environmental impact, we continuously **seek innovative solutions to minimize waste generation** at the source. We actively promote the reuse of materials within our processes whenever technically feasible and foster a **culture of recycling**

among our employees and collaborators. At TAKRAF sites, we aim to reduce the amount of waste sent to landfills by encouraging practices that extend the lifecycle of materials and lessen the overall environmental footprint. In parallel, at Tenova, we have **increased** the number of **waste collection points** in our office locations. We also compact our waste to reduce its overall volume. Moreover, we are currently exploring ways to improve the separation of waste types. Looking ahead, we aim to conduct in-depth research on our waste pathways downstream to further improve our diversion rate.



# Our People

## Empowering our Employees and Reinforcing Mutual Trust with all our Stakeholders



An average of **19.4 hours of training** per employee, increased by 8% compared to 2024



Launch of the global **Compliance Fundamentals training** initiative



Launch of the **Digital Employee Hub**, a user-friendly platform designed to centralize and enhance access to **company news** and **employee welfare services**

At Tenova Group, we believe that **our people are the foundation of everything we do**. They are the driving force behind our innovation, the engine of our daily operations, and the embodiment of the values that define us. It is thanks to our people that we are recognized as a global leader in sustainable technologies and engineering solutions for the metals and mining industries<sup>19</sup>.

Our workforce is highly educated: 62% of Metals employees and 59% of Mining employees hold a university degree, with Engineering as the primary discipline (74% and 70% respectively), followed by Economic Sciences.

Therefore, we are deeply committed to **protecting, nurturing, and empowering our workforce**, aiming to create an environment where our people can feel safe, valued, and able to focus on what truly matters: their personal and professional growth.

Our workforce consists of **2,580 employees** as of December 31<sup>st</sup>, 2025, of which 1,545 are employed at Tenova and 1,035 at TAKRAF, distributed across 33 locations in 18 countries and 5 continents. The Group recorded a 3% increase in its workforce compared to 2024. At Group level, **96%** of our employees are on **permanent contracts**, representing an **increase of over**

**14%** compared to 2024<sup>20</sup>, demonstrating our concrete **commitment** to employment **quality and stability**.

Furthermore, where **collective bargaining agreements** are in place, we adopt them in our contracts: increasing by 1% year-on-year, **39%** of our employees are under collective bargaining agreements, such as the Contratto Collettivo Metalmeccanico in Italy, the Union Agreement for Trade in Austria, and the Tarifvertrag Metall and Elektroindustrie NRW in Germany.

Our approach values long-term collaboration; thus, we count a relatively small number of **non-employee** workers.

<sup>19</sup> Tenova East Europe LLC (Tenova's subsidiary based in Russian Federation) is currently not integrated into centralized monitoring initiatives. Thus, it is not included in this Report

<sup>20</sup> The personnel and health & safety data contained in this chapter have been slightly revised compared to what was published in the previous Sustainability Report, following a refinement of the data collection process for 2024.

We want **our people to grow and thrive in Tenova Group**, so we ensure they have the best opportunities to develop skills, while safeguarding their well-being. This goal is not only a matter of responsibility but also a strategic choice to stay competitive in a rapidly-evolving sector.

In particular, we focus on four main areas:



**Occupational health and safety** – ensuring a secure and healthy work environment for workers in all areas.



**Diversity, equity and inclusion** – fostering a culture of inclusion and where differences are valued.



**Talent** – investing in employees' growth through training, upskilling, and career opportunities.



**Benefits and well-being** – providing concrete support through welfare, benefits, and initiatives.

# Occupational Health and Safety

**Safety is a fundamental value at Tenova Group.** We are deeply committed to ensuring the well-being of our people and all those we interact with, through our “**Safety First**” approach. This approach is deeply embedded in our culture and operations: in practice, it means maintaining a strong focus on **prevention and awareness** in all matters related to health and safety, making it a **core element** of our activities across all roles, functions, and entities within the Group.

Regardless of the location of operations or the local regulatory requirements, **Tenova Group consistently applies**, and wherever possible, exceeds **regulatory requirements** and promotes industry best practices.

The Group is strongly committed to maintaining and continuously improving its **Health, Safety, and Environment (HSE) management system**, which encompasses all employees and operational processes, including the design, manufacturing, and commissioning of plants, equipment, and auxiliary machinery. In this regard, at the Castellanza site, we organize **monthly safety meetings** involving workshop operations. The workers' representative from the

workshop participates to monitor planned and ongoing actions and report any situations requiring intervention.

This strong focus is institutionalized in the two policies that guide health and safety across the organization: **Tenova's HSE (Health, Safety, and Environment) Policy** and **TAKRAF's QHSE Policy (Quality, Health, Safety, and Environment)**. A key part of our “Safety First” approach is the gradual extension of **ISO 45001 – Occupational health and safety management systems** certification, internationally recognized as a standard for occupational health and safety, across **all our sites**.

As of 2025, the Group holds this certification for its **Castellanza** and **Genoa** sites in Italy and its **Duisburg** site in Germany for the metals business. On the mining side, TAKRAF sites in **China** (Beijing), **Germany** (Leipzig and Lauchhammer), **India** (Chennai), **South Africa** and **Australia** are certified under ISO 45001. To support this effort, we **regularly measure and review** our Health and Safety **performance** through **audits and inspections** to ensure the system remains effective, up-to-date, and continuously evolving.



In some countries, our subsidiaries have developed additional **H&S management systems or procedures** to ensure complete coverage of their specific regulations and risk scenarios. For example, Tenova Goodfellow Inc. developed a Health & Safety Manual which outlines the responsibilities of the employer and workers, and which is guided by the regulations set forth in the (OHSA) Occupational Health and Safety Act, R.S.O. 1990 of the Province of Ontario. This legal entity, via the Joint Health and Safety Committee, conducts monthly office/plant workplace inspections to ascertain work-related hazards, assess risks, and to offer recommendations to management for the remediation and resolution of any real and perceived hazards. To further strengthen its HSE framework, Tenova Metals maintains a **permanent Health and Safety Working Group** at the Pomini plant in Castellanza. This group meets monthly to review illness and injury data, evaluate new regulations, propose updates to company policy, and conduct routine audits to assess and improve existing safety standards.

In 2025, the Group recorded **5 work-related injuries**, of which **only 1 was classified as a high-consequence event**<sup>21</sup>, across a total of 4,275,020 hours worked. This figure represents a **significant decrease** compared to 2024<sup>22</sup>, when injuries totaled 12, marking a **58% reduction**. This result, combined with the Group's firm commitment to **continuous improvement**, reflects the effectiveness

of the **prevention and awareness initiatives** on health and safety matters actively pursued throughout the year, with ongoing efforts to foster a culture of prevention and care across all operations.

We believe that real impact comes when procedures are fully understood and embraced by our people. Therefore, we hold training sessions, specifically for new hires, and encourage active participation in health and safety initiatives to ensure these principles are shared and applied across the Group.

Some of our subsidiaries in multiple countries have carried out **mandatory training initiatives** tailored to the needs of their employees or their particular operational context. In Italy, all new Tenova S.p.A. employees are required to complete a **mandatory one-hour safety induction course**, along with **additional role-specific training** where applicable. To foster a culture of safety, we regularly organize additional training sessions and provide all employees with a set of **Basic Safety Rules** to guide daily operations. In **Canada**, plant-specific training includes: safety at heights and fall protection; ladder safety; lockout/tagout; first aid training; noise and hearing conservation, and personal protective equipment (PPE). In the **USA**, training includes all protection, electrical safety, bloodborne pathogens, and machine guarding. In **South Africa**, training extends to encompass specific training in firefighting and first aid.

At **TAKRAF** and **DELKOR's Global Manufacturing Hub** facilities in Germany and India, a proactive approach is embedded in daily operations through initiatives such as regular **safety training, orientation for new joiners**, and **emergency drills**. Key safety controls include mandatory **PPE usage, Toolbox Talks**, and implementation of **LOTO (Lock Out/Tag Out) procedures** for maintenance activities. Additional measures focus on **handling safety, hazardous material management**, and **risk assessment** across all processes. The engagement of management and workers in safety committees, along with the reporting of **64 risk observations and 4 near misses**, reflects a strong culture of continuous improvement and accountability in occupational health and safety.

Furthermore, **Tenova Group is actively engaged in a variety of tangible initiatives throughout the year to promote a strong safety culture**. At the local level, we participate in programs such as Italia Loves Sicurezza, a national Italian movement committed to protecting health and safety in the workplace. Tenova S.p.A. supports the initiative through a network of internal ambassadors and organizes awareness-raising activities in conjunction with the World Day for Safety and Health at Work, promoted by the International Labour Organization and the United Nations.

<sup>21</sup> The main types of injuries recorded have been the following: fractures, falls from height, and sprains

<sup>22</sup> The personnel and health & safety data contained in this chapter have been slightly revised compared to what was published in the previous Sustainability Report, following a refinement of the data collection process for 2024.

## World Safety Day

Since 2015, both Tenova and TAKRAF have hosted an **annual Safety Day** held on the **World Day for Safety and Health at Work** (April 28<sup>th</sup>). Safety represents one of the core commitments of the company and permeates every activity and project, with the aim of safeguarding the health and integrity of all employees and stakeholders collaborating with us. This is why safety is at the heart of Tenova Group's culture, with the motto **Safety First**, as well as of our technologies, with what we call **Safety by Design**.

The 2025 theme, "Revolutionizing health and safety: the role of AI and digitalization at work," mirrors Tenova's commitment to creating a safer, smarter future by **integrating safety into every stage** of its digital strategy, which also aims to improve efficiency and sustainability.

On May 22<sup>nd</sup>, 2025, the 11<sup>th</sup> edition of the Tenova Safety Day took place at the Castellanza campus in collaboration with Humanitas, Techint Group's medical partner. The session, led by a professional psychologist and psychotherapist, focused on the topic of **Burnout** - highlighting how to recognize its symptoms and providing practical tools to prevent it, supporting both individual and organizational well-being.





Furthermore, we strive to adopt a consistent approach across entities. For this purpose, for our metals business we distribute the **Tenova Project Site Safety Rules booklet** throughout our offices based on operational needs, and for our mining business we adopt the **HSE Guidelines for Working on TAKRAF Construction Sites** so as to maintain uniform standards across the board and further enhance safety awareness across the workforce. Our employees are encouraged and empowered to stop work whenever unsafe conditions arise, and to **report safety concerns**, either anonymously or directly to their managers.

Every reported incident is **thoroughly investigated**, with root causes identified and **corrective actions implemented**. We routinely conduct comprehensive risk assessments across all work sites and activities. Considering the Group's **core business activities**, which primarily take place **within office environments**, workplace **hazards** that pose a risk of **serious injury** are **not particularly widespread**. However, the following main categories of risks have been identified, especially at our plants: confined spaces, fire/explosion, moving tools, falling loads/material instability, falls from

height, chemicals, plant equipment (electrical and pressurized), manual handling of loads, uneven floors/surfaces, and hand/foot crushing. This risk assessment is carried out by both internal members and qualified external consultants, such as certified LAT ("Laboratori di Taratura Accreditati") laboratories in Italy, and includes on-site inspections and employee interviews to identify potential hazards. At our Castellanza and Genoa locations, a **company doctor** is present on-site to support risk assessments and coordinate annual health screenings. Based on inputs from these activities, we define key action points, which for the sites holding an ISO 45001 certification are reviewed during **regular audits** conducted by accredited IRCA (International Register for Certified Auditors) professionals.

**Progress** in health and safety is built on **active feedback** and **transparency**. Every **report or concern** raised is promptly **recorded**, ensuring that **issues are addressed and tracked**. Regular reporting to stakeholders further reinforces this commitment, promoting accountability and a culture where **continuous improvement is a shared responsibility**.

# Diversity, Equity, and Inclusion

At Tenova Group, we consider **diversity** as a **driver for innovation, resilience, and creativity**, and we are constantly working toward a more just and inclusive environment. That's why we are committed to **fostering an inclusive and equitable workplace** where every employee feels respected and treated fairly – regardless of gender, religion, ethnicity, nationality, age, sexual orientation, or disability. **Full compliance** is our starting point: we strictly follow local and national laws on equal employment opportunities in every country we operate in. While we universally hold values related to fairness and equal opportunity, as stated in our **Code of Conduct**, we understand that respecting diversity means avoiding a one-size-fits-all approach. Thus, we **tailor our diversity and inclusion programs** by country, considering specific, regional **socio-historical contexts**. We want to foster inclusiveness and equality for all our people, keeping in mind the challenges and injustices that women, different social categories and minorities can be subjected to. For example, in India, we maintain a committee working to raise awareness about sexual harassment and foster a safer work environment for female employees.

**Our commitment** to diversity begins at the **earliest stages** of the employee journey, starting with a **recruitment process** designed to attract and consider candidates from diverse backgrounds. In particular, the Group works to **enhance gender diversity** across its workforce. Industries such as steel, mining, and metals have been **traditionally male-dominated**. An [analysis of over 90 companies](#) in the steel industry revealed that as of 2024 women represent only 11% of the workforce. This underrepresentation stems from numerous complex factors, including social perceptions about working in the metals and mining sector, and the broader absence of women in STEM academic pathways. This figure has remained largely unchanged over the past decade. These are structural barriers that no single company can resolve alone – but understanding them helps us direct our efforts where they matter most: not just at the door, but along the entire career path.

As of 2025, **women constitute approximately 17% of our workforce**, a figure consistent with our peer group – and one we are working to improve, particularly at management and leadership levels where the gap widens significantly.



When it comes to challenging preconceptions and driving meaningful change, we believe that we are **stronger when we are together**; thus, to achieve real progress and benchmark it against our peers, we often participate in conferences organized by the **Association for Iron & Steel Technology (AIST)** and the **Society for Mining, Metallurgy and Exploration (SME)**. These events provide valuable insights into the development of young professionals and women in the global steel and mining industries, offering practical tools and strategies to effectively address diversity challenges and foster more inclusive workplaces.

We bring insights from these events back into our recruitment practices, mentoring programs, and internal training design. To support our diverse employees and communities, we hold regular **events and campaigns** to educate and engage employees on diversity, inclusion, and equal opportunities. Since launching our first awareness campaign in honor of the **International Day for the Elimination of Violence Against Women** in 2021, Tenova has continued to foster a culture of engagement and inclusion year-on-year. In 2025, for the fifth consecutive year, Tenova joined this global call with a company-wide initiative inspired by the symbolism of the butterfly and the historical legacy of

the Mirabal sisters – three Dominican activists known as “Las Mariposas”. The campaign invited all colleagues to show their support by creating a personalized butterfly to display in their workspace. In the US this was taken as an opportunity to start an anti-harassment training dedicated to all employees.

Furthermore, in 2025, Tenova delivered a series of training sessions focused on raising awareness about the gender glossary, with the aim of fostering awareness, responsibility, and a culture based on respect. The company is currently engaged in developing a program to expand the content and initiatives to be promoted in 2026.

In parallel, TAKRAF promotes female empowerment within the mining sector through its ongoing campaign “**Women in Mining**”, featuring interviews and stories on their intranet, website, LinkedIn, and mining publications to highlight the importance of women in the company and the mining industry. Moreover, some of TAKRAF subsidiaries have introduced local initiatives on equality, such as TAKRAF South Africa’s adherence to the **Broad-Based Black Economic Empowerment (B-BBEE)** policy, which addresses gender, diversity, and age in compliance with South African legislation.

Reflecting Tenova Group’s commitment to fostering an **inclusive workplace** and promoting a **culture of respect** for diversity among employees, **no cases of discrimination were recorded in 2025**.



# Talent

**In order for Tenova to succeed as a Group, our employees must be able to learn the necessary skills in an industry that is constantly evolving. We pride ourselves on providing a supportive work environment where employees can grow and develop in their careers while promoting inclusive local employment practices to generate high value in the territories in which we operate.**

## Empowering People Through Training and Career Development

**Learning** is the foundation of our progress. We **upskill and reskill** our employees through on-the-job training, cultural exposure, and education to **meet the evolving needs** of our business and employees. Our initiatives are designed to **enhance professional competencies** by fostering a **digital mindset**, enabling all to adapt to innovation and **contribute actively to the Group's goals**.

Tenova Group encourages an **open and participatory environment** where employees are actively involved in shaping learning courses to foster a relevant and inclusive experience.

Since 2024, our Training & Development function carried an **inclusive learning strategy** by providing every employee with access to curated digital content through the dedicated module **My Learning** on the **HR Platform**.

In 2025, we further expanded access by integrating LinkedIn Learning into our offering, giving every employee a self-directed path to develop skills at their own pace, in addition to structured programs.

Moreover, Tenova delivered several training programs to update technical and transversal skills, addressing the needs identified during the Appraisal for Development process. The courses covered topics such as data analysis, sustainability, project management, digital skills, and corporate compliance. Additionally, the pilot project **"Lead with Agility"** was rolled out for middle and senior managers globally, focusing on navigating complexity, managing generational diversity within teams, and developing situational leadership in transitional environments.



## Training activities in 2025 focused on the following areas:



**Digital Skills** – training activities focused on strengthening **digital capabilities** and fostering a **data-driven mindset** across the organization. Employees enhanced their skills in data analysis, digital tools, and innovation-related topics through structured programs and self-directed learning, including an **AI literacy** course available to all employees with the aim of building a foundational understanding of artificial intelligence and its applications.



**Collaboration and Feedback** – local learning hubs delivered workshops on negotiation, conflict management, communication, and cross-cultural integration. These initiatives focused on strengthening **day-to-day collaboration** and **reinforcing feedback** as a key tool to support effective teamwork and open dialogue.



**Compliance** – training activities also focused on reinforcing a culture of **integrity** and **accountability**. At the end of the year, Tenova launched a global e-learning course on **Compliance Fundamentals** for the Tenova population, covering key pillars such as the Code of Conduct, Whistleblowing, Conflict of Interest, and Gift&Hospitality.



## Some of our programs include:

### INTERNSHIPS

We offer **internship opportunities worldwide** to undergraduate and postgraduate students, allowing them to gain valuable **hands-on experience**. Moreover, we collaborate with local high schools for **school-work rotation initiatives** in every office, in particular in Italy, where tens of students are involved every year. Interns can gain hard and soft skills by interacting with Tenova employees. In addition, **TAKRAF Germany** has an **apprenticeship program** to train students after school in the profession of a cutting machine operator at our Product & Service Center in Lauchhammer. In the **United States**, Tenova actively partners with the AIST Foundation to support the Steel Intern Scholarship Program, helping students interested in the steel industry secure paid summer internships or co-op opportunities at North American steel companies. Through this initiative, students gain valuable real-world experience and financial support while exploring careers in the steel sector.

### T-READY

Launched in 2019, T-Ready is the Italian headquarters' **talent development program** targeting recent graduates. The **two-year program** assigns new hires to a global Techint Group office for the first year and Tenova headquarters for the second. The participants follow a **tailored individual development** path supported by a dedicated tutor.

### HIGH TECH PROGRAM

Our **High-Tech Program** is a two-year global **internal training initiative** designed for a select group of high-potential, talented junior professionals. The program focuses on **developing managerial and business skills** through hands-on learning and strategic exposure. During the program, participants work on an **innovation or implementation project** aimed at improving Tenova's processes, products, or overall business performance. At the conclusion of the two years, the final projects are presented to Tenova's top management.

### TENOVA CORPORATE ACADEMY

We relaunched the **Tenova Corporate Academy**, streamlining its structure around **four core training areas** that reflect the strategic needs of the Group: **institutional corporate guidelines, technical skills, managerial development, and language training**. The Academy plays a central role in **equipping our people with the knowledge and tools** they need to thrive in an evolving business landscape. A key focus is to **keep employees up to date with emerging trends** in innovation, digitalization, sustainability, and process excellence. As part of this renewed approach, we introduced the **Tenova Leadership Lab**, a dynamic extension of the Tenova Corporate Academy designed to foster continuous learning across the organization. Each year, the Lab delivers two new online courses focused on trending or employee-requested topics, supporting the development of relevant skills in a flexible format. Since 2023, this initiative has also included a global in-person component, offering soft skills training sessions across Tenova offices, facilitated by the Academy.

These workshops provided managers and employees with practical skills to strengthen workplace relationships, navigate diverse environments, and support individual and team development through constructive feedback and open dialogue.

## T-START

As part of its commitment to talent development and fostering a positive corporate culture, Tenova organizes an annual training program for Italian employees under the age of 30, known as **T-START**. The program is designed to support the development and transfer of both technical and soft skills, facilitate a smooth integration into the organization, and strengthen a sense of belonging, collaboration, and engagement. It also promotes the transfer of organizational knowledge and expertise from experienced professionals to newly hired employees, helping preserve critical know-how across the Group. The 2025 edition of T-START focused on the theme of **Self-Awareness and Managing Uncertainty in the Workplace**, providing participants with practical tools to navigate complexity, enhance personal effectiveness, and support their professional growth.

In 2025, the Group delivered **over 50,000 training hours**, corresponding to an average of **19.4 hours per employee**, with an 11% increase in total training hours and an 8% rise in training hours per capita compared to the previous year. As a matter of fact, Tenova Group displays **significant learning efforts** to ensure that **individuals are fully prepared** and sufficiently **confident** to take on their roles effectively.

At Tenova Group, career development is seen as a collaborative path built together with our people.

It starts with listening to individual aspirations and continues through structured initiatives that support learning, development, and progression over time. An essential aspect of this approach is our **mentoring program**, which pairs **junior and senior employees** to bridge generational gaps, strengthen digital and technical capabilities, and foster stronger internal networks. Individual assessments are conducted to identify strengths and development areas, feeding directly into personalized growth plans agreed between the employee and their manager.

Furthermore, we have a **structured performance review system** in place that ensures regular performance

and career development reviews for **2,346 employees**, namely 100% of TAKRAF staff and 84.5% of Tenova employees. At Group level, 91% of employees receive regular performance and career development reviews, in line with 2024 data.

These reviews are fundamental tools **for aligning individual goals with organizational priorities** since they are based both on **company-wide objectives** and **specific development parameters** agreed with each employee at the beginning of the year. This agreement allows for the identification of **personalized growth** and training opportunities and ensures continuous alignment throughout the employee's journey. At TAKRAF, local legal entities are responsible for managing the performance evaluation processes, but the process is currently under review to design a **global performance management program**.

Looking ahead, we are committed to further integrating learning and development into the broader employee experience, including the definition of a core curriculum tailored to each career stage, from onboarding to leadership development, ensuring that every employee has the right tools and guidance to realize their full potential.

## Promoting Employment

The Group is fully aware of its dual role in society as both an employer and a driver of innovation, and is firmly committed to generating **positive impact** in the **communities** it operates in. This commitment is evident through our approach to hiring, aimed at minimizing heavy relocations and enhancing the integration of the company into local social and economic systems.

In 2025, Tenova Group **hired 266 new employees**, with a particular focus on technical profiles and young professionals, reflecting its ongoing commitment to investing in the future of the industry; the **employee turnover rate** stood at **around 10%**, up from the 8% recorded in 2024.

To further support local recruitment and promote youth employment, the Group collaborates actively with **local universities** and industry **foundations**, which offer opportunities for training, professional networking, and talent acquisition. Tenova continues to collaborate with technical institutes for work-study programs and integrated training, and participates in the Industrial Management Lab project at the Politecnico di Milano, hosting graduate students engaged in project work on continuous improvement.

The Group regularly participates in career fairs at leading universities worldwide, typically twice a year, as part of an employer branding strategy aimed at **attracting high-potential candidates**.

In particular, Tenova took part in the University of Genoa and the Politecnico di Milano career days, two leading universities it actively collaborates with and supports various of their initiatives hosted at the Castellanza Campus, further strengthening our **connection with the academic world**. In 2025, the Careers section on our website was revamped to be clearer, more accessible, and focused on attracting new talent.

## Tenova's Digital Employee Experience

In 2025, we launched the new **Digital Employee Hub**. This platform gradually replaced our corporate intranet, putting instead the employee at the center. Through this portal, our people can access a range of **welfare services** offered according to their role, in a user-friendly and accessible way.



## Benefits and Well-being

**Well-being is a way of working** at Tenova Group: we believe it is a cornerstone to building a resilient and progressive organization. For us, **attracting and retaining** the right talent includes creating a **package of benefits** that proves our commitment to creating an **equitable and supportive workplace** – one that allows all our employees to collaborate effectively, feel part of a community, and thrive in line with our values.

This begins with a **competitive salary**. Our **compensation policy** ensures fair and consistent salary practices across all Group companies, in line with our commitment to meritocracy and internal equity. The **annual salary review** process is conducted **globally**, using standardized tools and procedures.

It takes into account factors such as **inflation rates, market benchmarks, individual performance, and the strategic relevance of roles**. Salary adjustments and merit increases are proposed within allocated budgets and approved through a structured governance process involving HR, business leaders, and corporate management. The process aims to **retain key talent, reward high performers, and maintain a balanced pay structure** across the organization.

A **variable compensation** component is included in our total reward structure, designed to reflect individual performance and the results of the annual performance review. The structure and application of this component may vary depending on the country and local practices, in alignment with applicable laws and collective agreements.

All full-time employees receive a **full suite of standard benefits**, in line with local standards in their country of residence. Tenova Group has always been sensitive to employees' benefits and well-being; therefore, we comply with local rules and follow **high well-being standards**. Employee well-being extends beyond a standard salary, which is why we offer employees **additional benefits and services** based on regional norms.

In 2025, we conducted a comprehensive welfare mapping exercise across all Group subsidiaries worldwide – cataloguing the programs, benefits, and local initiatives already in place. This mapping forms the foundation of a common welfare strategy currently under development, designed to ensure a consistent baseline of well-being support across all countries while preserving space for local adaptation.



For example:

- We **provide educational support for employees' children** and supplemental life insurance, as well as counseling services.
- In **Italy**, we provide employees with access to a **campus gym** and **cafeteria**, shuttle transport to our offices, and annual flu **vaccinations**.
- As part of our corporate well-being initiatives, we provide Tenova employees in **Italy** with top-tier **health insurance**, along with a dedicated **prevention program**. Between late 2025 and early 2026, the second edition of the **My CheckLab Tenova** program was launched, developed in collaboration with Humanitas. This program includes a set of medical tests, defined together with the company doctor, aimed at offering participants a comprehensive overview of their health status. For executives, a personalised prevention plan based on age, called **My CheckUp Tenova**, has been introduced.
- In **India**, we subsidize **transport** to our campuses, and provide access to an on-campus **cafeteria**.
- Wherever possible and compatible with their roles, in most of our countries of operation we continue to offer our employees up to two **work-from-home days** per week; this approach reflects our commitment to listening to the **evolving needs** of our people, especially in a post-Covid context, where **flexibility** has become the norm. We recognize that a better work-life balance and greater autonomy are important and we strive to offer solutions that support both individual well-being and team effectiveness.

- **TAKRAF Australia** supported "R U OK?", a national initiative dedicated to encouraging meaningful conversations about **mental health**.

The well-being of our employees is reflected above all by the working environment in which they carry out their daily activities, which must be pleasant and comfortable. Many of our offices, especially the newer ones, are modern and bright, with large open space areas, including kitchen and cooking spaces, which also encourage (in-)formal exchange among colleagues.

### Community Engagement and Social Contributions

We believe that **real well-being** also stems from the **health** and the **wealth** of the communities in which our employees live. Thus, the Group has also mobilized to contribute to **positive social change**. This commitment is in line with our dedication to supporting health and well-being for all within and beyond our community. TAKRAF South Africa partnered with a local electricity supplier to donate soccer kits to eight schools in Mpumalanga, reinforcing our commitment to social inclusion and equal opportunities for children in underserved communities. In a similar spirit, we became the official sponsor of the F60 Triathlon in Lusatia, Germany, a region where TAKRAF has deep historical roots. The seventh edition of the event took place in September 2025 beneath the iconic F60 conveyor bridge, symbolizing our lasting bond with the local community and our belief in the unifying power of sport.

In the United States, **Tenova Inc.** also contributed to community well-being through a range of charitable initiatives. In May 2025, a group of employees participated in the **Steps Against Melanoma Walk** in Pittsburgh, supporting research and awareness efforts promoted by AIM at Melanoma. During the year, Tenova Inc. further reinforced its commitment to local communities by donating to the **Women's and Girls Foundation of Southwest Pennsylvania** and sponsoring youth sports activities through the **Montour Youth Soccer Association**, helping promote inclusion, participation, and development among younger generations.

Although most of the Group's hires are made on a local basis, **global mobility** can be an important enrichment to community-based growth. By combining **workforce development** with inclusive and **ethical hiring practices**, Tenova Group creates long-term value for both the company and society, reinforcing its commitment to diversity, equity, and inclusion.

## EMPLOYEE OPINION SURVEY

Tenova Group believes that continuous feedback from employees is an essential element for building a relationship of mutual collaboration. To support this, the Group provides dedicated tools that enable the ongoing collection of employees' suggestions, needs, and perspectives.

Every two years, Tenova Group conducts the **EOS (Employee Opinion Survey)** to gather employees' feedback, understand their needs, and align with their expectations. This survey helps engage employees, transform feedback into actions, and enhance the overall work experience, emphasizing the importance of employee voices in promoting well-being and satisfaction. In the years between EOS cycles, the Group administers a Pulse Survey – a shorter and more focused version of the questionnaire – designed to monitor key trends and maintain continuous dialogue with employees.

The **2024 EOS** confirmed **strong employee engagement**, and achieved an impressive **83% response rate**, with 1,945 employees participating (1,233 from Tenova and 712 from TAKRAF).

Thanks to the survey results, it was possible to identify **priorities for improvement: Training & Development, Total Compensation, and Collaboration**. These findings have been guiding targeted initiatives to address specific challenges and further enhance employee experience.

In addition, in July the **Pulse Survey 2025** was administered through the new **Qualtrics** platform, aiming to engage employees and gather their feedback on five key KPIs: **Engagement, Intent to Stay, Purpose, Inclusion, and Expectations vs Experiences**. With an 80% response rate and 59% of participants providing comments, the survey demonstrated strong engagement and served to test the platform globally and familiarize with Qualtrics' KPIs.

The next edition of the EOS is planned to be launched in the second half of 2026.



# Our Commitment to Transparent Governance

## Being transparent within our organization and with our stakeholders



Reinforcement of the **Sustainability Steering Committee** with **4 new members** to drive sustainability strategy and organizational objectives



Updates to the **Whistleblowing Procedure**, reinforcing compliance, transparency, and alignment with international best practices



Definition of a dedicated **CBAM Framework** aimed at strengthening sustainable supply chain governance

At Tenova Group, we believe in **leading by example**. We recognize that the leadership position we have earned in the global metals and mining industries comes with significant responsibilities. We aspire to be a **trustworthy partner** for our stakeholders and a driver for **exemplary behavior** within our industry. Aware of the **active role we play in the societies** where we operate, we are strongly committed to acting in compliance with local laws and regulations and promoting them in local communities<sup>23</sup>.

Ultimately, all our efforts to promote good corporate governance are aimed at **cultivating a healthy corporate culture** in which our most precious asset can thrive: **our people**. This ambition is made tangible through comprehensive, far-reaching **internal policies** that govern both the behavior of our employees and our relationships with external stakeholders. This section illustrates how **transparency** is embedded in our **governance structure and policies**, which guide our people to act ethically and consistently with our company values every day.



<sup>23</sup> Tenova East Europe LLC (Tenova's subsidiary based in Russian Federation) is currently not integrated into centralized monitoring initiatives. Thus, it is not included in this Report.

## Governance and ESG Management

Ethical governance at Tenova starts with the highest governance bodies. Their leadership and dedication to transparency shapes the Group's decisions, strengthening stakeholder trust.

**Tenova S.p.A.'s Board of Directors** is composed of seven members, with a combination of **executive and non-executive roles** selected based on **shareholders' views**, bringing together a **range of technical and managerial skills** focused on relevant disciplines including HR, finance and accounting, business and markets. To ensure a strong and informed local presence across the Tenova Group companies, **local Boards of Directors** are present and typically composed of the local business manager, the head of the relevant business unit and the local CFO.

Meanwhile, the **consistency of the overall vision** and alignment of the Group's activities with our values and mission are determined by the **Boards of Directors and the CEO**. In line with our transparency commitment, the **Chair of the Board** holds a **non-executive role**, ensuring independent oversight separate from operational management. For further information on the Board composition please refer to the Sustainability Performance – Board of Directors section (p. 100).

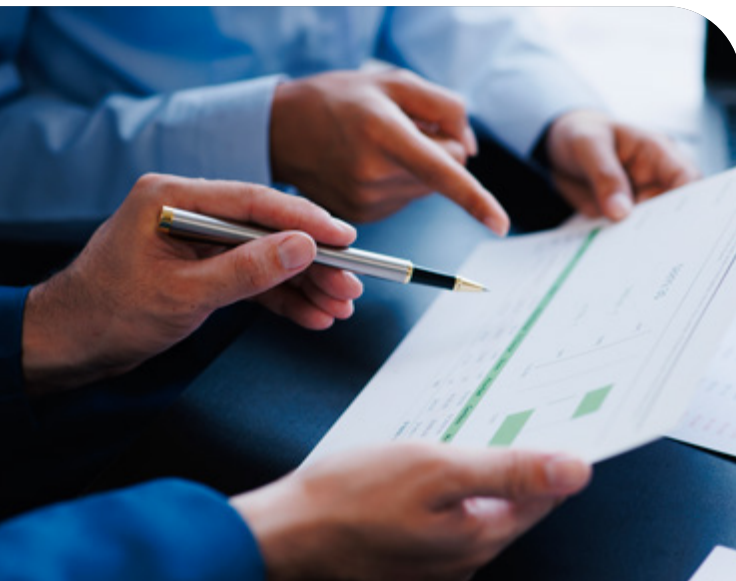
The **Board of Directors** – in its duty of **overseeing** the management of the **organization's impacts** on the related Compliance risks – is supported by the **Compliance Committee** and the **Supervisory Body** (Organismo di Vigilanza) as per Italian Legislative Decree n. 231/2001.

**Sustainability** is at the **heart of our business** and our values, and the Board of Directors plays a pivotal role in shaping, approving, and updating the Group's strategies, policies, and goals in order to lead Tenova in its transformative journey toward a **more sustainable and responsible future**, both **within the organization** and as a **player within society**. In this regard, the impact materiality assessment conducted in 2024 enabled a step further in understanding Tenova Group's sustainable development.

We have **three management bodies** to sustain the Board in its duty of benchmarking and monitoring our progress to create goals and cascade accountability on sustainability matters across the organization:

- Our 14-member **Sustainability Steering Committee** devises our overall strategy on sustainability and sets our goals. It determines the right partners to achieve our goals and creates an action plan.
- The Steering Committee is supported by the **Sustainability Project Team** which manages projects created in the action plan, coordinates with relevant partners, monitors progress against KPIs, and keeps projects running on schedule.
- Finally, our **Operative Committee** communicates the strategy, goals, and action plan across the organization and cascades responsibility for projects to the appropriate groups within Tenova Group.

Progress on sustainability goals and actions is periodically shared with governance bodies by the relevant functions.



## Stakeholder Engagement

At Tenova Group, we believe that **strong governance** is built not only on well-defined structures and procedures but also guided by a **clear purpose** and ability to actively listen to, engage with, and respond to the expectations of **our stakeholders**. Thus, a **constant and solid relationship** with all stakeholders is **fundamental** for the Group, **creating shared value**.

**Stakeholder engagement** activities stand at the **core of our strategy** and reflect our commitment to accountability, in an increasingly complex global context that requires a deep understanding of **stakeholders' shifting preferences** to predict risks and identify potential opportunities. Overall, engaging with our stakeholders ensures **alignment between the Group initiatives and their priorities**.

Our key stakeholders are **shareholders, employees, suppliers, clients, business partners, trade associations, peers, competitors, community members, academics,** and the **media**. We engage with our stakeholders through **direct outreach, events**, and by soliciting their feedback through avenues like **our materiality assessment**. Tenova Group prioritizes communication with its stakeholders by carefully considering their perspectives on how our business impacts them.

As active players shaping the current landscape of the metals and mining industries, both Tenova and TAKRAF are engaged with **key industry and business associations**. Tenova is a member of the executive board committee of several prominent global

organizations, such as the Clean Steel Partnership (**CSP**), the Italian National Cluster "Fabbrica Intelligente" (**CFI**). In Italy we are part of the Regional Cluster "Associazione Fabbrica Intelligente Lombardia" (**AFIL**), the Italian Section of the Combustion Institute (**ASICI**), and the Italian Association for Metallurgy (**AIM**). These memberships allow us to collaborate with industry leaders, promote sustainability and ESG priorities, and drive technological innovation.

Similarly, TAKRAF participates in influential business and economic groups such as, at a German level, the Industrie- und Handelskammer (**IHK**), the Allgemeiner Verband der Wirtschaft f.Berlin u.Brandenburg e.V., the Deutsche Gesellschaft für Personalführung e.V. (**DGFP**), the Deutsches Institut für Normung e.V. (**DIN**), the Deutsche Gesellschaft für Zerstörungsfreie Prüfung (**DGZfP**), and, at a global level, the Internationaler Wirtschaftssenat (**IWF**), which offer strategic platforms for networking, economic cooperation, and business growth in regional and international markets.

In **2025**, as part of our stakeholder engagement activities, we also carried out a specific initiative directly linked to this Report: the **engagement** of both **internal and external stakeholders** to identify the **impact Tenova has on its stakeholder ecosystem**. This activity, already described in the previous section "Stakeholders' contribution to our Materiality assessment", provided **essential input to our materiality assessment** and, thus, to the definition of our sustainability priorities.

Shareholders

Employees

Media

Academics

Community Members

Peers and Competitors

Trade Associations

Business Partners

Suppliers

Clients

For further information on Tenova's stakeholder engagement practices, please refer to the section "Stakeholder Engagement" in the Appendix.

## Compliance and Ethics

**Ethical conduct** is a key component of our success, both as a Group operating in the metals and mining industries, and as people in a thriving company.

Our sector is highly regulated and Tenova is fully committed to **complying with all applicable laws and regulations at the local, regional, and national levels**. This section guides us through the **key documents** that shape the Group's rules and behavior (i.e., the Code of Conduct and the Anti-Bribery Policy) and the **organizational structures** that support their implementation. Furthermore, we also present the mechanisms that guarantee transparency and compliance with the above-mentioned laws and principles, such as our whistleblowing channel and the **Organization, Management and Control Model** in

accordance with the requirements of Italian Legislative Decree 231/2001.

As part of our ongoing commitment to fair and transparent business practices, in 2017, we joined the **Metals Technology Initiative (MTI)**, the **anti-corruption collective action** for the metals technology industry. Hosted by the Basel Institute on Governance, MTI provides a **collaborative forum** for members to develop anti-corruption compliance practices and safeguard fair competition. MTI members pledge to prohibit bribery, maintain robust internal control systems, compete fairly in the market, address key ethical risks in the industry, and share best practices. Through this initiative, we strengthen our commitment to integrity as a pillar of sustainable growth.

### Ethics and Integrity Structure

At Tenova Group, we recognize that maintaining **high ethical standards** requires a **robust governance framework** that defines clear roles, responsibilities, and accountability at every organizational level.

**Management** is the main body in charge of building an **efficient internal control system** aimed at ensuring consistent compliance with applicable laws, rules, and regulations, our Code of Conduct, and policies and procedures. Specifically, the **internal control system** is overseen by the **Compliance Committee** and operates to reinforce the existing compliance-oriented corporate culture. The system consists of a **set of principles, rules and procedures** designed to guarantee efficient and effective management of all business processes. All our employees and Board Members have access to our policies and procedures available on our internal channels. Our **Compliance Department** supports the Group, participating in the **definition of the system's processes and controls**, while our **Internal Audit Department** provides independent, objective analysis aimed at **monitoring internal control system design and effectiveness**.



## Codes of Conduct

Tenova Group's **Code of Conduct** defines principles and **standards of integrity and transparency** that must be complied with by everyone in the Tenova Group, and outlines our expectations for employee behavior, guaranteeing ethical and **responsible conduct company-wide**. This includes appropriate interactions with clients, suppliers, and third parties in general, as well as rules against any type of discrimination, and more. **All employees are required to accept our Code of Conduct** at the end of their recruitment and hiring process, as well as periodically during campaigns aimed at reinforcing awareness of the Code and its principles. A Code of Conduct **signing campaign** was launched across the entire Tenova population in December 2025. **TAKRAF**, which fully complies with the Tenova Group Code of Conduct, is currently working on a **company-wide version of the document**, to add procedures and insights tailored to its specific activities and countries of operation. This approach reflects the importance of ensuring that the Code remains as **relevant and applicable** as possible to the company's actual context. Additionally, since 2024, Tenova Group has introduced a dedicated **Code of Conduct for Suppliers**. By establishing common rules for both internal teams and

external partners, Tenova ensures that suppliers uphold the same standards, making adherence to the Code a key factor in supplier management and evaluation.

Our **Tenova Anti-Bribery Policy** outlines the values, principles, and responsibilities that we adopt to fight corruption. We additionally comply with the OECD Anti-Bribery Convention, the UN Convention Against Corruption, the US Foreign Corrupt Practices Act, the UK 2010 Bribery Act, and Italian Legislative Decree 231/2001.

The Tenova Group Code of Conduct **defines** a real or potential **conflict of interest** as any situation in which an employee's relationship with a third party could influence, or appear to influence, Tenova Group's interests or those of its stakeholders. In such cases, employees are required to **prioritize the Group's interests** over any personal gain that might benefit themselves, their relatives, or closely associated individuals. This applies to all dealings with customers, suppliers, contractors, competitors, and colleagues. To preserve transparency and integrity, it is mandatory that any **actual or potential conflicts of interest** are promptly **disclosed in writing** according to Tenova's internal procedure. Furthermore, candidates are requested to submit their conflict-of-interest

declaration during the selection process while all new hires are currently required to declare any conflict of interest when they are onboarded.

During 2025, **2,332** of our employees attended **mandatory anti-corruption training**. Additionally, in 2025 TAKRAF Group implemented a mandatory online **Data Protection** training program for all employees, as well as a mandatory online training on the compliant use of **Artificial Intelligence (AI)** and online training on **Conflict of Interest**.





## Human Rights

At Tenova Group, we fully commit to compliance with laws and regulations about **human rights** and respect for **workers' rights**; we encourage our companies and local subsidiaries to contribute to this effort by adopting additional, company-wide policies and procedures on these matters.

### TAKRAF's Employment and Human Rights Policy

shares this commitment by establishing principles on **labor rights** such as fair remunerations and work conditions, fair and equal treatment, inclusion and diversity, risks of forced and child labor, modern slavery, and human trafficking. The policy extends to all TAKRAF's employees, suppliers, and contractors worldwide, and adheres to international standards based on good industry practices, including the Universal Declaration of Human Rights; the International Covenant on Civil and Political Rights; the International Covenant on Economic, Social and Cultural Rights; the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work. Furthermore, **on a local basis**, we enforce **specific policies**: for example, DELKOR India has adopted an **Equal Employment & Non-Discrimination Policy**, and TAKRAF South Africa has an **Employment Equity Policy**.

## Voicing Integrity

To **ensure** that all **employees** and stakeholders can **raise concerns** or **address issues of conduct** and gain a comprehensive understanding of the reported situation, Tenova has established mechanisms for reporting unlawful or unethical behavior. The existent **whistleblowing system** allows employees and external stakeholders to report any suspected misconduct, violations of company policies, or unethical behavior. All reports received by Tenova are handled according to the **Whistleblowing Procedure** and the **Privacy Policy** ensuring confidentiality and data protection.

In addition, **TAKRAF** has [a dedicated webpage](#) where it is possible for employees or external parties to **report non-compliance**, ensuring the availability of channels through clear policies and processes for handling grievances and complaints.

During 2025, Tenova **updated** the **Whistleblowing Procedure**, formally communicating it internally and externally, in order to ensure its full currency and alignment with international best practices. The procedure establishes a process that ensures the **receipt, analysis** and **management** of reports of situations or conducts that are illegal, allegedly illegal, in breach of all applicable and effective Tenova policies and procedures.

A robust governance framework, transparent procedures, and reliable reporting mechanisms ensured consistent **zero reported cases of corruption** also in 2025, reflecting our ongoing commitment to integrity.

## Protecting your Data – Data Privacy and Cybersecurity

In an increasingly digital and deeply connected world, where **personal data** is a **valuable asset**, Tenova Group has woven **privacy protection and cybersecurity** into our operational fabric. Beyond compliance, our goal is to ensure a relationship of trust with all our stakeholders.

Protecting the data of our employees, customers, and partners and securing our infrastructure from cyberattacks is a top priority for the Group. We adhere to the strictest data protection regulations set by the countries where we operate, including the EU's **General Data Protection Regulation (GDPR)**. To oversee and coordinate our data protection strategy, we have appointed **Data Protection Officers (DPOs)**, who ensure company-wide compliance and are the main contact for privacy-related matters. Furthermore, the Group chooses to **invest in secure technologies and internal awareness** through dedicated training on the importance of protecting data. Ensuring the best level of privacy for those who visit our website is fundamental. To be as transparent as possible about how we treat the data we collect, we clearly outline how we handle personal information in our **Privacy Policy**, specifying the type of data we collect, how we process it, the measures we take to protect it, and the rights of the individuals whose data we treat.

We have several **policies aimed at mitigating cyber risk**, including a mobile device management policy, an access control policy, and a security incident procedure. With a forward-looking approach and goal of remaining at the forefront of cybersecurity in the coming years, we have developed a **Cybersecurity Roadmap** to steer our initiatives, define key safeguards, and identify emerging threats. At Tenova Group, our approach to cyber risk is comprehensive and proactive, addressing all dimensions of cybersecurity to ensure the availability, integrity, and confidentiality of information, while protecting our strategic know-how. To support this vision, we have adopted **SIEM (Security Information and Event Management)** and **SOC (Security Operations Center)** technologies:

- **SIEM** enables us to **collect, correlate, and analyze security data** from across our IT infrastructure in real time. It helps detect anomalies, flag suspicious behavior, and generate alerts for potential threats, before they can cause harm.
- **SOC** is our dedicated team of cybersecurity professionals who **monitor, investigate, and respond to these alerts 24/7**. SOC ensures that every incident is assessed and addressed promptly, minimizing risk and downtime. Together, SIEM and SOC empower

Tenova to **identify, assess, and react to cyber threats swiftly and effectively**, reinforcing our resilience against evolving attack vectors. In addition, we have implemented a **DLP (Data Loss Prevention)** solution to further protect our intellectual property. DLP tools monitor and control the movement of sensitive data – such as proprietary designs, engineering processes, and strategic documents – ensuring that Tenova's know-how remains secure and is not accidentally or maliciously leaked outside the organization.



Since 2024, Tenova adopted a **policy** dedicated to the **responsible and secure use of artificial intelligence tools** by its personnel<sup>24</sup>. While recognizing the potential of AI technologies to improve efficiency and productivity, the policy also acknowledges the associated risks, such as the generation of inaccurate content and the exposure of sensitive data. Our core principles to align AI use with the company's values and Code of Conduct are:

**1) No Use of Sensitive Information in Generic AI Tools:**

Personnel and third parties are strictly prohibited from inputting any sensitive or confidential information into non-approved AI tools. Contractual provisions must reflect this obligation for third parties.

**2) Mandatory Human Review:** AI-generated content must be reviewed for accuracy, completeness, and compliance with intellectual property and ethical standards. Users are fully responsible for any content generated with AI tools.

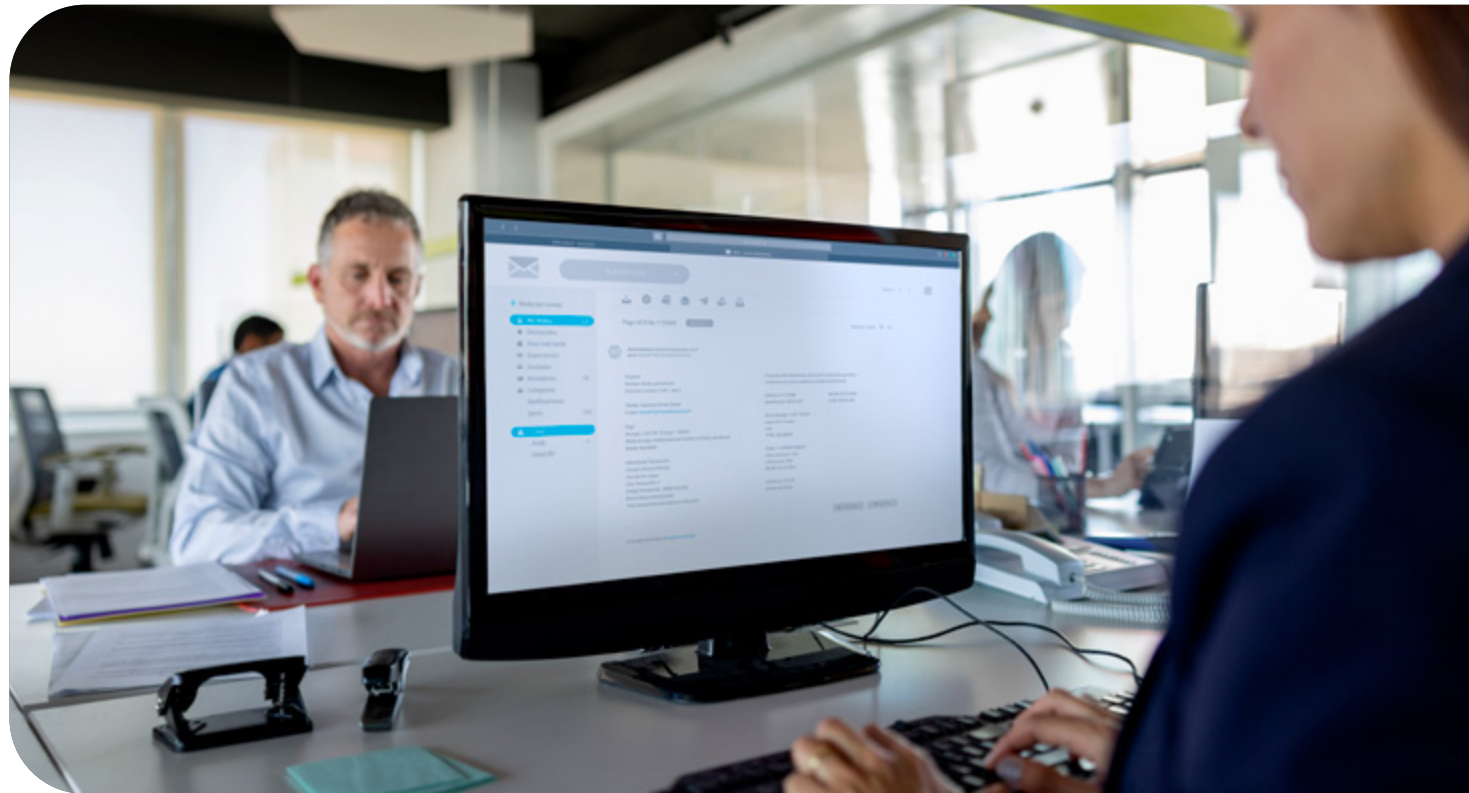
**3) Opting Out of AI Training:** Users must opt out of allowing AI tools to use Tenova data for training purposes whenever possible.

**4) Information Security Compliance:** All use of AI tools must align with Tenova's information security procedures.

**5) Adherence to Code of Conduct:** All AI-related activities must respect the company's principles regarding data privacy, confidentiality, and intellectual property.

Contextually, Tenova also implemented a platform to **support cyber security awareness**. This starts with providing an **awareness course to all Tenova employees** on an ongoing basis, starting with new hires – for whom it is mandatory. The platform also allows us to monitor the level reached by our employees in terms of awareness through **fake phishing campaigns**.

Fake phishing is a common practice that allows us to both measure the level of awareness reached by Tenova personnel and train them through fake phishing attacks targeted at our organization.

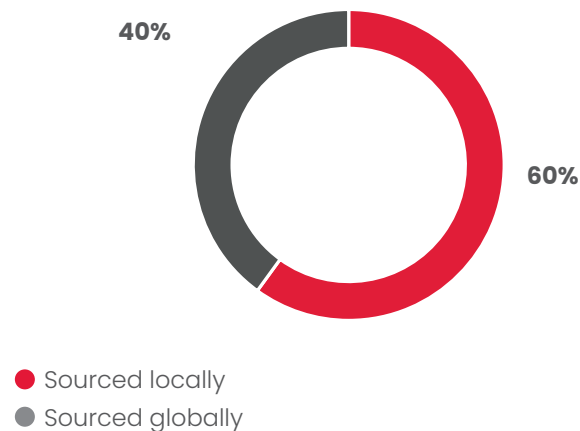


<sup>24</sup>The Tenova AI policy is applicable to Tenova S.p.A. and its subsidiaries ("Tenova Group"), with the exclusion of TAKRAF GmbH and its subsidiaries ("TAKRAF Group").

## Our Supply Chain

Tenova Group operates on a global scale with an **international supply chain spanning five continents**. We ensure **full compliance with procurement regulations** in all countries we operate or conduct business in and expect our suppliers and partners to adhere to all applicable laws and regulations. Our **operations are global** but at the same time we are strongly focused on the **impact we generate locally**. We recognize the importance of job creation and contribution to employment as drivers of communities' growth. Thus, in 2025, **60% of Tenova Group's purchases were sourced locally<sup>25</sup>**, namely in the same country where our legal entities operate, preferring local contractors and suppliers. This local approach positively and directly impacts the territories that host and support our operations.

### Tenova Group purchases



<sup>25</sup> The reported percentage does not include the legal entity LOI Poland Spolka z.o.o., as the purchasing data were not yet fully integrated into the management system, which has caused difficulties in retrieving the relevant information.

Our sourcing strategy is built on two main pillars: **strategic sourcing and supply chain risk management**. Strategic sourcing focuses on bringing procurement closer to our customers and establishing long-term contracts for high-volume, critical components. In parallel, supply chain risk management aims to diversify sources for key materials, strengthen due diligence on existing suppliers, and take proactive measures in logistics and transport optimization.

As a Group, we recognize that **ESG risks** are key drivers of financial risks. To mitigate supply chain risks, we are working on integrating **ESG criteria into our supplier qualification process**. Our supplier engagement strategy aims at integrating risk management and sustainability considerations through comprehensive **screening, evaluation, and pre-qualification procedures**. The Group's supply chain is committed to being fully aligned with international best practices of **sustainable supply chain management**, particularly in connection with ESG. Our goal is to develop a network of suppliers committed to minimizing the environmental impact of their activities through responsible use of resources, smart transport planning, reduced waste and emissions, and safe handling of hazardous substances.

Specifically, starting from 2021 once basic information, core business, and financial data are assessed, suppliers are subject to a second evaluation stage in alignment with Tenova's corporate procedures. This includes a **positive screening** based on **questionnaires** addressing quality, environment, health, and safety practices within their operations and across their value chain. To achieve its supply chain goals, the Group applies differentiated supplier assessment questionnaires. The questionnaire for **Tenova's** suppliers places particular emphasis on **QHSE (Quality, Health, Safety, and Environment)** aspects, evaluating elements such as the supplier's management system, HSE organization, quality control plans, traceability, injury statistics, risk assessments and environmental protection measures. All Tenova procurement processes are outlined in our **Procurement Corporate Procedure**.

**TAKRAF's assessment** is structured around five key areas: **Supply Chain Management, Corporate Social Responsibility, Health & Safety Management System, Sustainability** (including emissions and environmental impact), and **Quality Management System**. These tools ensure that suppliers meet TAKRAF's standards for both risk mitigation and sustainability performance.

## Tenova Sustainable Supply Chain Program

In 2023, Tenova launched the **Sustainable Supply Chain Program**, defining key objectives through 2027 and implementing a dedicated **Performance Monitoring System**.

During 2025, the focus shifted towards the implementation of a structured framework supporting compliance with the definitive **EU Carbon Border Adjustment Mechanism (CBAM)** regime entering into force in 2026. In this context, in 2025 Tenova started implementing a dedicated **CBAM Procedure** aimed at strengthening sustainable supply chain governance and supporting a more consistent management of CBAM-related obligations.

The initiative included the definition of internal responsibilities, data collection and reporting processes, supplier engagement activities, and governance mechanisms applicable to relevant EU import transactions. Particular attention was dedicated to awareness and training initiatives involving both Tenova personnel and suppliers potentially impacted by CBAM requirements, with the objective of improving understanding of embedded emissions reporting obligations, supporting documentation requirements, and the operational implications of the new regulatory framework.

To support the effective implementation of the CBAM framework, Tenova also engaged specialized external advisors both for suppliers and for internal functions.

Dedicated consultants were made available to support suppliers in the preparation and collection of emissions data and documentation required under the **European Commission CBAM framework**, while separate advisory support was engaged to assist Tenova in managing **Authorized CBAM Declarant obligations**, related compliance activities, and the broader strategic and operational awareness initiatives across the organization.

The implementation of the CBAM framework also promoted closer collaboration among Supply Chain, Legal, Finance, and project teams, contributing to a more effective management of related processes and information flows throughout the organization.

# Appendix



# Stakeholder Engagement

A constant and solid relationship with all our stakeholders is fundamental for us and for the creation of shared value. For this reason, we dialogue and collaborate with our stakeholders through several engagement activities. The following table shows a map of our engagement activities carried out in 2025.

OUR STAKEHOLDER ENGAGEMENT ACTIVITIES IN 2025		
Stakeholder	Tenova	TAKRAF
Employees	<ul style="list-style-type: none"> <li>• Internal Audit</li> <li>• Onboarding programs for new hires</li> <li>• Introduction to internal policies such as Code of Conduct for new hired</li> <li>• Career paths: Job Fairs, Online webinars, Assessments</li> <li>• Company intranet</li> <li>• Compliance training on specific procedures/processes/systems /tools</li> <li>• Regular Town Hall Meetings to communicate on company performance, general issues and an opportunity for a Q&amp;A session</li> <li>• Well-being partnership (Humanitas Mater Domini Hospital) and initiatives for Tenova’s employees’ families i.e. Scholarships for Tenova employees’ children (Italy), Christmas presents for employee children under age 12 (Italy)</li> <li>• AIST (Iron &amp; Steel Technology) Foundation: a non-profit organization which represents a network of steel knowledge and expertise, constituted of 16,000 members from more than 70 countries</li> <li>• Employee Pulse Survey 2025</li> <li>• Tenova Leadership Lab</li> <li>• Campaign for the renewal of Code of Conduct acceptance</li> <li>• Whistleblowing platform</li> <li>• Performance reviews and meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Internal audit</li> <li>• Country specific onboarding processes</li> <li>• Introduction to internal policies and procedures</li> <li>• Company intranet</li> <li>• Compliance training on specific procedures / processes / systems / tools</li> <li>• Employee survey</li> <li>• Town Hall meetings</li> <li>• Job fairs and collaboration with local universities</li> <li>• Performance reviews and meetings</li> <li>• Health and Safety committees</li> <li>• Whistleblowing platform</li> <li>• Exit interviews</li> <li>• Internal social media – Microsoft Teams</li> <li>• Long service awards</li> <li>• Well-being and access to mental health organizations</li> <li>• Internal mobility and career pathway dialogues</li> </ul>

## OUR STAKEHOLDER ENGAGEMENT ACTIVITIES IN 2025

Stakeholder	Tenova	TAKRAF
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>• Daily business interactions</li> <li>• Cooperation to develop and improve the main technological equipment for digital texturing</li> <li>• Involvement in the Supplier Questionnaire</li> <li>• Code of Conduct for Suppliers</li> <li>• Compliance due diligence on specific categories of suppliers</li> <li>• Seasonal and annual training</li> <li>• Ethics and Compliance page in the Tenova website</li> <li>• HSE qualification process includes the utilization of the SCRM portal for the upload and verification of qualification documents which are then validated through a scoring system (from 1 to 6)</li> <li>• Whistleblowing platform</li> </ul>	<ul style="list-style-type: none"> <li>• Daily business interactions</li> <li>• Face to face and virtual meetings with suppliers</li> <li>• Supplier qualification process</li> <li>• Supplier audits and site visits for some categories of suppliers</li> <li>• Supplier questionnaire</li> <li>• Cooperation agreements with key suppliers</li> <li>• Code of Conduct</li> <li>• Whistleblowing platform</li> <li>• Joint innovation and improvement initiatives</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>• Identification and development of joint projects</li> <li>• Participation in working groups</li> <li>• Project collaboration</li> <li>• Employee well-being and development partnership</li> <li>• Papers and publication</li> <li>• Whistleblowing platform</li> </ul>	<ul style="list-style-type: none"> <li>• Daily business interactions</li> <li>• Face to face and virtual meetings with customers</li> <li>• Industry specific expos and conferences</li> <li>• Whistleblowing platform</li> <li>• Identification and development of joint projects</li> <li>• Project collaboration</li> </ul>
<b>Peers</b>	<ul style="list-style-type: none"> <li>• MTI (Metals Technology Initiative)</li> </ul>	<ul style="list-style-type: none"> <li>• Industry specific expos and conferences</li> <li>• Interaction on projects</li> </ul>

## OUR STAKEHOLDER ENGAGEMENT ACTIVITIES IN 2025

Stakeholder	Tenova	TAKRAF
<b>Industry associations</b>	<ul style="list-style-type: none"> <li>• Active participation in roundtables discussion</li> <li>• Exchange best practices</li> <li>• Annual meetings</li> <li>• WEB conferences</li> <li>• Co-develop training/learning programs</li> <li>• Definition of initiatives or projects in collaboration</li> <li>• Confindustria Varese and Assolombarda - in-depth discussion of specific topics</li> </ul>	<ul style="list-style-type: none"> <li>• Industry specific expos and conferences</li> <li>• International Economic Council (IWS - Internationaler Wirtschaftssenat) membership in Germany</li> <li>• Chairman on the Technical Committee on Bulk Material Conveyor Technology of the Association of German Engineers (VDI - Vereins Deutscher Ingenieure)</li> </ul>
<b>NGOs</b>	<ul style="list-style-type: none"> <li>• Open dialogue and specific initiatives with local relevant stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Open dialogue and specific initiatives with local relevant stakeholders</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>• Training programs</li> <li>• Osservatorio PoliMi</li> <li>• Job Fairs Webinars</li> <li>• Lectures</li> <li>• Innovation events</li> <li>• Company presentation at Universities and High schools</li> <li>• Trainee opportunities</li> <li>• AIST Steel Intern Scholarships (participating as evaluators)</li> </ul>	<ul style="list-style-type: none"> <li>• Job fairs and collaboration with local universities</li> <li>• Apprenticeship, internship and trainee programs</li> <li>• Collaboration and research with multiple universities</li> <li>• Technical advisory role</li> </ul>
<b>Regulatory bodies/Government</b>	<ul style="list-style-type: none"> <li>• Open dialogue</li> <li>• Institutional meetings</li> <li>• Participation in projects of public utility</li> </ul>	<ul style="list-style-type: none"> <li>• Open dialogue</li> <li>• Institutional meetings</li> </ul>

# ESG Topics and Impact Scope

The table below presents the results of the impact materiality assessment, listing the most significant sustainability impacts of Tenova Group<sup>26</sup>:

ESG Topic	Related Impact	Impact Description	Own operation / Value Chain	Tenova's Framework
Energy	Energy consumption (own operation)	Energy consumption from renewable and non-renewable sources, with negative consequences on the environment and reduction of the energy stock.	Own operations	<b>WE BUILD TRUST</b>
	Energy consumption (value chain)	Energy consumption from renewable and non-renewable sources, with negative consequences on the environment and reduction of the energy stock.	Value chain	<b>WE BUILD TRUST</b>
Climate change mitigation	Direct and indirect GHG emissions generation (Scope 1 and 2)	Generation of direct and indirect climate-changing energy emissions related to the activities carried out at the Group's offices and sites (e.g. operation of production plants).	Own operations	<b>WE BUILD TRUST</b>
	Indirect GHG emissions generation (Scope 3)	Generation of climate-changing emissions produced in the value chain as a result of the activities carried out (e.g. production and transport of the materials used, sale and transport of the final product).	Value chain	<b>WE BUILD TRUST</b>
Pollution of air	Emission of pollutants into the atmosphere (Upstream - Downstream)	Release of pollutant emissions into the atmosphere in the value chain, with a negative impact on air quality and ecosystems, including human and animal health, such as sulphur oxides (SO <sub>x</sub> ), nitrogen oxides (NO <sub>x</sub> ) and, in particular, particulate matter (PM), volatile organic compounds (VOCs), and carbon monoxide (CO).	Value chain	<b>WE BUILD TRUST</b>
Water	Water consumption (Value Chain)	Water consumption in own production processes (processing materials, cleaning, rinsing, cooling) and along the supply chain. Poorly managed consumption of water for own operations can lead to a reduction in local water reserves, increasing the risk of drought and compromising ecological habitats.	Value chain	<b>WE BUILD TRUST</b>

<sup>26</sup> With regard to the impacts of the value chain, it was not possible to collect complete data at this stage. However, as a preliminary step, an initial assessment has been conducted to identify and estimate relevant aspects. In the coming years, the Group aims to structure its monitoring system to progressively include these data, with the goal of providing a more comprehensive picture of its ESG performance.

ESG Topic	Related Impact	Impact Description	Own operation / Value Chain	Tenova's Framework
<b>Resource inflows, including resource use</b>	R&D – raw materials	Investments in R&D for the development of products that require fewer raw materials and raw materials with a lower environmental impact.	<b>Own operations</b>	<b>WE TRANSFORM BUSINESS</b>
	Depletion of natural resources	Use of natural resources with consequent reduction in their availability.	<b>Value chain</b>	<b>WE BUILD TRUST</b>
<b>Resources outflows related to products and services</b>	R&D – circular economy	Investments in R&D for the development of technologies that will lower impact throughout the entire life cycle of product use, particularly the usage phase, but also disposal.	<b>Own operation, Value chain</b>	<b>WE TRANSFORM BUSINESS</b>
<b>Waste</b>	Waste generation	Hazardous and non-hazardous waste generation resulting in negative environmental effects	<b>Value chain</b>	<b>WE BUILD TRUST</b>
<b>Working conditions</b>	Inadequate remuneration	Failure to comply with wage agreements or workers' expectations, in terms of inadequate remuneration of employees and contractors.	<b>Own operations</b>	<b>WE BUILD TRUST</b>
	Meeting employee expectations in terms of well-being	Adoption of well-being practices (e.g. flexible working hours) that meet employee expectations, with consequent impacts in terms of employee satisfaction.	<b>Own operations</b>	<b>WE BUILD TRUST</b>
	H&S incidents at work	Accidents or other accidents in the workplace, with negative consequences for the health of direct workers or external collaborators.	<b>Own operations</b>	<b>WE BUILD TRUST</b>
<b>Equal treatment and opportunities for all</b>	Incidents of workplace discrimination against the workforce	Incidents of discrimination (related to gender, age, ethnicity, etc.), violence, or other non-inclusive practices against the workforce, which may affect the allocation of responsibilities, compensation, and career advancement.	<b>Own operations</b>	<b>WE BUILD TRUST</b>
	Development and enhancement of workers' skills through training activities	Improvement of workers' skills and digital mindset through training and professional development activities, general and technical programs, also linked to growth objectives and personalized evaluation (e.g. career development plans).	<b>Own operations</b>	<b>WE BUILD TRUST</b>
<b>Other work-related rights</b>	Breach and loss of workforce's data	Poor cybersecurity management and failure to apply data management best practices at the expense of the privacy of the workforce.	<b>Own operations</b>	<b>WE BUILD TRUST</b>
<b>Communities' economic, social and cultural rights</b>	Job creation and contribution to employment	Contribution to the development of professional opportunities and hiring workers from the local communities in which the Group operates, with positive impacts on local economies.	<b>Own operations</b>	<b>WE BUILD TRUST</b>

ESG Topic	Related Impact	Impact Description	Own operation / Value Chain	Tenova's Framework
<b>Personal safety of consumers and/or end-users</b>	R&D - quality and safety	Development of new technologies to make the product increasingly safe and follow the highest possible quality standards, with positive impacts for clients and end-users.	<b>Own operations</b>	<b>WE TRANSFORM BUSINESS</b>
<b>Corporate culture</b>	Creating a culture of sustainability and business ethics	Awareness and dissemination of the culture of sustainability, ethics, equity, and inclusion, and respect for human rights among employees (i. e through ESG-linked remuneration), business partners (i.e. leveraging demand), and other stakeholders.	<b>Own operations</b>	<b>WE ACT TRANSPARENTLY</b>
	Regulatory compliance	Non-compliance with applicable laws, regulations, internal and external standards, resulting in a potential negative impact on stakeholders.	<b>Own operation, Value chain</b>	<b>WE ACT TRANSPARENTLY</b>
<b>Protection of whistle-blowers</b>	Incidents of retaliation against whistleblowers	Episodes of retaliation on those who report illegal or incorrect behavior, commissive or omissive.	<b>Own operations</b>	<b>WE ACT TRANSPARENTLY</b>
<b>Management of relationships with suppliers including payment practices</b>	Inadequate management of supplier relationships with regard to sustainability issues	Inadequate management of relationships with suppliers, which does not take into account the impacts on sustainability issues generated by them endorse and contribute to such impacts.	<b>Own operations</b>	<b>WE ACT TRANSPARENTLY</b>
<b>Corruption and bribery</b>	Corruption training	Increased employee awareness of corruption-related issues, thanks to the provision of training.	<b>Own operations</b>	<b>WE ACT TRANSPARENTLY</b>
	Incidents of corruption and anti-competitive practices	Anti-competitive behavior, monopolistic practices, episodes of corruption with negative impacts on the economy and markets.	<b>Own operation, Value chain</b>	<b>WE ACT TRANSPARENTLY</b>
<b>Innovation and digital transformation</b>	Technological innovation of processes and products	Positive impacts on people and economic systems generated by process and product technological innovations and digitalization linked to research and development activities.	<b>Own operations</b>	<b>WE TRANSFORM BUSINESS</b>

# Our Sustainability Performance

## Our Environmental Impact

### Energy consumption<sup>27</sup>

GRI 302-1 Energy consumption within the organization

Energy consumption within the organization					
	Uom	2024		2025	
		Total	Total in GJ	Total	Total in GJ <sup>28</sup>
<b>Fuel Consumption from Non-renewable Sources</b>			<b>29,695</b>		<b>29,737</b>
<b>Fuels used for productive purposes</b>			<b>18,522</b>		<b>17,285</b>
<i>Natural gas</i>	m <sup>3</sup>	482,165	17,689	452,357	16,596
<i>Diesel</i>	litres	23,358	833	19,318	689
<b>Fuels used for fleet vehicles owned by the organization or long-term leased (only company use)</b>	<b>litres</b>		<b>11,172.5</b>		<b>12,452.1</b>
<i>Diesel</i>	litres	148,615	5,273	155,553	5,547
<i>HVO</i>	litres	4,011	143	2,985	106
<i>Petrol</i>	litres	178,242	5,755	211,595	6,799
<i>LNG</i>	litres	84	2	-	-
<b>Electricity Consumption</b>	<b>kWh</b>	<b>7,926,145</b>	<b>28,534</b>	<b>8,427,420</b>	<b>30,339</b>
<b>Electricity Purchased</b>	<b>kWh</b>	<b>7,077,445</b>	<b>25,479</b>	<b>7,519,690</b>	<b>27,071</b>
Purchased electricity from non-renewable sources	kWh	7,002,868	25,210	7,452,026	26,827
Purchased electricity from renewable sources	kWh	74,577	268	67,664	244
<b>Self-generated electricity consumed from renewable</b>	<b>kWh</b>	<b>848,700</b>	<b>3,055</b>	<b>907,730</b>	<b>3,268</b>
Total Electricity self-generated from renewable sources	kWh	1,010,000	3,636	1,072,030	3,859
Self-produced electricity sold from renewable sources	kWh	161,300	581	164,300	591
<b>Steam consumption</b>	<b>kWh</b>	<b>2,517,225</b>	<b>9,062</b>	<b>3,098,235</b>	<b>11,154</b>
<b>Total energy consumption</b>	<b>kWh</b>		<b>67,291</b>		<b>71,229</b>

<sup>27</sup> Following an improvement in the data collection system, 2024 Energy consumption data have been restated compared to what was published in the previous Sustainability Report.

<sup>28</sup> In order to quantify energy consumption, Tenova Group used the following conversion factors to calculate GJ: 2024 and 2025 UK Government GHG Conversion Factors for Company Reporting (DEFRA).

## Our Emissions<sup>29</sup>

**GRI 305-1** Direct (Scope 1) GHG emissions and

**GRI 305-2** Energy indirect (Scope 2) GHG emissions

### Energy consumption within the organization

	Uom	2024	2025
<b>Scope 1 GHG emissions<sup>30</sup></b>	tCO <sub>2</sub> e	1,836	<b>1,845</b>
<b>Scope 2 GHG emissions – Market-based<sup>31</sup></b>	tCO <sub>2</sub> e	4,839	<b>5,238</b>
<b>Scope 2 GHG emissions – Location-based<sup>32</sup></b>	tCO <sub>2</sub> e	3,768	<b>3,777</b>

<sup>29</sup> Following an improvement in the data collection system, 2024 Emissions data have been restated compared to what was published in the previous Sustainability Report.

<sup>30</sup> In order to quantify Scope 1 emissions, Tenova Group used the following emission factors to calculate tCO<sub>2</sub>e: 2024 and 2025 UK Government GHG Conversion Factors for Company Reporting (DEFRA).

<sup>31</sup> In order to quantify Scope 2 location-based emissions, Tenova Group used the following emission factors to calculate tCwe: AIB – European Supplier Mixes (2023 and 2025), Australian National Greenhouse Accounts Factors, United States Environmental Protection Agency (EPA), IGES 2025, National Inventory Report 1990 –2021: Greenhouse Gas Sources and Sinks in Canada, Terna 2019, EPA (2024).

<sup>32</sup> In order to quantify Scope 2 market-based emissions, Tenova Group used the following emission factors to calculate tCO<sub>2</sub>e: AIB – European Residual Mixes (2023 and 2025), Australian National Greenhouse Accounts Factors, United States Environmental Protection Agency (EPA), IGES 2025 National Inventory Report 1990 –2021: Greenhouse Gas Sources and Sinks in Canada, Terna 2019, EPA (2024).

## Our People<sup>33</sup>

### GRI 2-7 Employees

#### Employees per type of contract, gender and region

Region	Type of contract	As at 31 <sup>st</sup> December 2024			As at 31 <sup>st</sup> December 2025		
		Male	Female	Total	Male	Female	Total
Africa	Permanent	85	29	114	84	29	113
	Temporary	19	5	24	16	6	22
	Seasonal	-	-	-	-	-	-
Asia	Permanent	616	95	711	662	98	760
	Temporary	32	13	45	26	13	39
	Seasonal	-	-	-	-	-	-
Europe	Permanent	717	145	862	906	217	1.123
	Temporary	196	65	261	28	2	30
	Seasonal	-	-	-	-	-	-
North America	Permanent	153	21	174	158	22	180
	Temporary	1	1	2	1	1	2
	Seasonal	-	-	-	-	-	-
Oceania	Permanent	34	8	42	25	8	33
	Temporary	-	-	-	-	-	-
	Seasonal	-	-	-	-	-	-
South America	Permanent	225	48	273	224	49	273
	Temporary	2	1	3	5	-	5
	Seasonal	-	-	-	-	-	-
Total	Permanent	1,830	346	2,176	2,059	423	2,482
	Temporary	250	85	335	76	22	98
	Seasonal	-	-	0	-	-	0
	Total	2,080	431	2,511	2,135	445	2,580

<sup>33</sup> The personnel and health & safety data contained in this chapter have been slightly revised compared to what was published in the previous Sustainability Report, following a refinement of the data collection process for 2024.

### Employees per type of contract, gender and region

Region	Type of contract	As at 31 <sup>st</sup> December 2024			As at 31 <sup>st</sup> December 2025		
		Male	Female	Total	Male	Female	Total
Africa	Full-time	104	34	138	100	35	135
	Part-time	-	-	-	-	-	-
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	0%	0%	0%	0%	0%	0%
	<b>Total</b>	104	34	138	100	35	135
Asia	Full-time	646	108	754	686	111	797
	Part-time	2	-	2	2	-	2
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	0%	0%	0%	0%	0%	0%
	<b>Total</b>	648	108	756	688	111	799
Europe	Full-time	892	190	1,082	915	200	1,115
	Part-time	21	20	41	19	19	38
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	2%	10%	4%	2%	9%	3%
	<b>Total</b>	913	210	1,123	934	219	1,153
North America	Full-time	151	22	173	154	23	177
	Part-time	3	-	3	5	-	5
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	2%	0%	2%	3%	0%	3%
	<b>Total</b>	154	22	176	159	23	182

### Employees per type of contract, gender and region

Region	Type of contract	As at 31 <sup>st</sup> December 2024			As at 31 <sup>st</sup> December 2025		
		Male	Female	Total	Male	Female	Total
Oceania	Full-time	34	8	42	25	8	33
	Part-time	-	-	-	-	-	-
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	0%	0%	0%	0%	0%	0%
	<b>Total</b>	34	8	42	25	8	33
South America	Full-time	227	49	276	229	49	278
	Part-time	-	-	-	-	-	-
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	0%	0%	0%	0%	0%	0%
	<b>Total</b>	227	49	276	229	49	278
Total	Full-time	2,054	411	2,465	2,109	426	2,535
	Part-time	26	20	46	26	19	45
	Non-guaranteed hours	-	-	-	-	-	-
	Part time (%)	1%	5%	2%	1%	4%	2%
	<b>Total</b>	2,080	431	2,511	2,135	445	2,580

**GRI 2-8 Workers who are not employees<sup>34</sup>****Workers who are not employees per professional category and gender**

Professional Category	As at 31 <sup>st</sup> December 2024			As at 31 <sup>st</sup> December 2025		
	Male	Female	Total	Male	Female	Total
Agency workers	35	12	47	35	13	48
Interns/Trainees	9	2	11	12	4	16
Sales agents	11	-	11	9	-	9
Other (please specify)	9	4	13	33	13	46
<b>Total</b>	<b>64</b>	<b>18</b>	<b>82</b>	<b>89</b>	<b>30</b>	<b>119</b>

**Occupational Health and Safety****GRI 403-9 Work-related injuries****Work-related injuries - Group's employees**

	2024	2025
<b>Number of injuries</b>		
Total number of fatalities as a result of work-related injury	-	-
Total number of high-consequence work-related injuries	2	1
Total number of recordable work-related injuries	12	5
<b>Temporal data</b>		
Hours worked <sup>35</sup>	3,897,146	4,275,020
Multiplier for calculation	1,000,000	1,000,000
<b>Rate</b>		
Rate of fatalities as a result of work-related injury	-	-
Rate of high-consequence work-related injuries (excluding fatalities)	0.51	0.23
Rate of recordable work-related injuries	3.08	1.17

<sup>34</sup>The number of workers who are not employees does not include the contractors working with the Italian sites of Castellanza, Genova and Dalmine, as the current monitoring system only monitors categories such as interns and temporary workers. However, efforts are underway to enhance data collection and reporting capabilities on this subject.

<sup>35</sup>TAKRAF only registered worked hours for operational employees. Where precise data was not available, estimates were made using the best methodologies available. The average estimated hours were calculated with reference to data provided by the OECD (Source: [OECD Data Explorer • Average annual hours actually worked per worker](#)).

## Diversity, Equity and Inclusion

### GRI 405-1 Diversity of governance bodies and employees

#### Employees per category and gender (percentage)

Professional category	As at 31 <sup>st</sup> December 2024			As at 31 <sup>st</sup> December 2025		
	Male	Female	Total	Male	Female	Total
Executives	95.3%	4.7%	<b>1.7%</b>	94.9%	5.1%	<b>1.5%</b>
Managers	89.0%	11.0%	<b>11.5%</b>	90.0%	10.0%	<b>11.2%</b>
Employees	80.3%	19.7%	<b>80.2%</b>	80.4%	19.6%	<b>81.0%</b>
Workers and intermediates	99.4%	0.6%	<b>6.5%</b>	97.5%	2.5%	<b>6.2%</b>
<b>Total</b>	<b>82.8%</b>	<b>17.2%</b>	<b>100.0%</b>	<b>82.8%</b>	<b>17.2%</b>	<b>100.0%</b>

#### Employees per category and age group (percentage)

Professional category	As of 31 <sup>st</sup> December 2024				As of 31 <sup>st</sup> December 2025			
	<30 years old	30-50 years old	>50 years old	Total	<30 years old	30-50 years old	>50 years old	Total
Executives	0.0%	25.6%	74.4%	<b>1.7%</b>	0.0%	28.2%	71.8%	<b>1.5%</b>
Managers	0.4%	50.5%	49.1%	<b>11.3%</b>	0.0%	44.2%	55.8%	<b>11.4%</b>
Employees	12.8%	58.7%	28.6%	<b>80.5%</b>	13.8%	56.3%	29.9%	<b>80.9%</b>
Workers and intermediates	11.6%	54.9%	33.5%	<b>6.5%</b>	11.9%	54.4%	33.8%	<b>6.2%</b>
<b>Total</b>	<b>11.1%</b>	<b>56.9%</b>	<b>32.0%</b>	<b>100.0%</b>	<b>11.9%</b>	<b>54.4%</b>	<b>33.7%</b>	<b>100.0%</b>

## Talent

### GRI 401-1 New employee hires and employee turnover

New hires											
Region	Gender	2024					2025				
		<30 years old	30-50 years old	>50 years old	Total	Rate of new hires	<30 years old	30-50 years old	>50 years old	Total	Rate
Africa	Male	2	10	-	12	11.5%	-	4	-	4	4.0%
	Female	-	2	1	3	8.8%	-	1	-	1	2.9%
	<b>Total</b>	<b>2</b>	<b>12</b>	<b>1</b>	<b>15</b>	<b>10.9%</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>3.7%</b>
Asia	Male	36	37	6	79	12.2%	41	52	4	97	14.1%
	Female	5	4	-	9	8.3%	4	5	1	10	9.0%
	<b>Total</b>	<b>41</b>	<b>41</b>	<b>6</b>	<b>88</b>	<b>11.6%</b>	<b>45</b>	<b>57</b>	<b>5</b>	<b>107</b>	<b>13.4%</b>
Europe	Male	28	39	17	84	9.2%	25	38	16	79	8.5%
	Female	8	8	1	17	8.1%	8	9	-	17	7.8%
	<b>Total</b>	<b>36</b>	<b>47</b>	<b>18</b>	<b>101</b>	<b>9.0%</b>	<b>33</b>	<b>47</b>	<b>16</b>	<b>96</b>	<b>8.3%</b>
North America	Male	6	5	1	12	7.8%	5	10	3	18	11.3%
	Female	1	1	-	2	9.1%	3	1	-	4	17.4%
	<b>Total</b>	<b>7</b>	<b>6</b>	<b>1</b>	<b>14</b>	<b>8.0%</b>	<b>8</b>	<b>11</b>	<b>3</b>	<b>22</b>	<b>12.1%</b>
Oceania	Male	-	5	5	10	29.4%	-	2	2	4	16.0%
	Female	-	1	-	1	12.5%	-	-	-	-	0.0%
	<b>Total</b>	<b>-</b>	<b>6</b>	<b>5</b>	<b>11</b>	<b>26.2%</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>12.1%</b>
South America	Male	8	22	4	34	15.0%	6	13	8	27	11.8%
	Female	5	5	1	11	22.4%	-	5	-	5	10.2%
	<b>Total</b>	<b>13</b>	<b>27</b>	<b>5</b>	<b>45</b>	<b>16.3%</b>	<b>6</b>	<b>18</b>	<b>8</b>	<b>32</b>	<b>11.5%</b>
<b>Total</b>	Male	<b>80</b>	<b>118</b>	<b>33</b>	<b>231</b>	<b>11.1%</b>	<b>77</b>	<b>119</b>	<b>33</b>	<b>229</b>	<b>10.7%</b>
	Female	<b>19</b>	<b>21</b>	<b>3</b>	<b>43</b>	<b>10.0%</b>	<b>15</b>	<b>21</b>	<b>1</b>	<b>37</b>	<b>8.3%</b>
	<b>Total</b>	<b>99</b>	<b>139</b>	<b>36</b>	<b>274</b>	<b>10.9%</b>	<b>92</b>	<b>140</b>	<b>34</b>	<b>266</b>	<b>10.3%</b>

## Terminations

Region	Gender	2024					2025				
		<30 years old	30-50 years old	>50 years old	Total	Rate of Termination	<30 years old	30-50 years old	>50 years old	Total	Rate
Africa	Male	-	11	8	19	18.3%	-	6	-	6	6.0%
	Female	-	4	1	5	14.7%	-	1	1	2	5.7%
	<b>Total</b>	<b>-</b>	<b>15</b>	<b>9</b>	<b>24</b>	<b>17.4%</b>	<b>-</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>5.9%</b>
Asia	Male	6	37	8	51	7.9%	14	31	14	59	8.6%
	Female	-	9	3	12	11.1%	1	4	-	5	4.5%
	<b>Total</b>	<b>6</b>	<b>46</b>	<b>11</b>	<b>63</b>	<b>8.3%</b>	<b>15</b>	<b>35</b>	<b>14</b>	<b>64</b>	<b>8.0%</b>
Europe	Male	9	19	21	49	5.4%	11	22	26	59	6.3%
	Female	1	10	3	14	6.7%	2	2	3	7	3.2%
	<b>Total</b>	<b>10</b>	<b>29</b>	<b>24</b>	<b>63</b>	<b>5.6%</b>	<b>13</b>	<b>24</b>	<b>29</b>	<b>66</b>	<b>5.7%</b>
North America	Male	5	4	7	16	10.4%	1	10	3	14	8.8%
	Female	2	1	1	4	18.2%	1	1	-	2	8.7%
	<b>Total</b>	<b>7</b>	<b>5</b>	<b>8</b>	<b>20</b>	<b>11.4%</b>	<b>2</b>	<b>11</b>	<b>3</b>	<b>16</b>	<b>8.8%</b>
Oceania	Male	-	11	5	16	47.1%	-	6	7	13	52.0%
	Female	-	1	-	1	12.5%	-	-	-	-	0.0%
	<b>Total</b>	<b>-</b>	<b>12</b>	<b>5</b>	<b>17</b>	<b>40.5%</b>	<b>-</b>	<b>6</b>	<b>7</b>	<b>13</b>	<b>39.4%</b>
South America	Male	3	9	11	23	10.1%	2	12	10	24	10.5%
	Female	2	4	-	6	12.2%	1	3	2	6	12.2%
	<b>Total</b>	<b>5</b>	<b>13</b>	<b>11</b>	<b>29</b>	<b>10.5%</b>	<b>3</b>	<b>15</b>	<b>12</b>	<b>30</b>	<b>10.8%</b>
Total	Male	23	91	60	174	8.4%	28	87	60	175	8.2%
	Female	5	29	8	42	9.7%	5	11	6	22	4.9%
	<b>Total</b>	<b>28</b>	<b>120</b>	<b>68</b>	<b>216</b>	<b>8.6%</b>	<b>33</b>	<b>98</b>	<b>66</b>	<b>197</b>	<b>7.6%</b>

**GRI 404-1 Average hours of training per year per employee<sup>36</sup>****Average hours of training**

	<b>N. hours Man</b>	<b>Total employees Man</b>	<b>N. hours per capita Man</b>	<b>N. hours Woman</b>	<b>Total employees Woman</b>	<b>N. hours per capita Woman</b>	<b>N. hours Total</b>	<b>Total employees</b>	<b>N. hours per capita</b>
<b>As of 31<sup>st</sup> December 2024</b>									
<b>Executives</b>	232	<b>41</b>	<b>5.6</b>	35	<b>2</b>	<b>17.5</b>	<b>267</b>	<b>43</b>	<b>6.2</b>
<b>Managers</b>	1,428	<b>258</b>	<b>5.5</b>	1,041	<b>32</b>	<b>32.5</b>	<b>2,469</b>	<b>290</b>	<b>8.5</b>
<b>Employees</b>	15,969	<b>1,618</b>	<b>9.9</b>	4,729	<b>396</b>	<b>11.9</b>	<b>20,698</b>	<b>2,014</b>	<b>10.3</b>
<b>Workers and intermediates</b>	1,429	<b>163</b>	<b>8.8</b>	1,176	<b>1</b>	<b>1,176.0</b>	<b>2,605</b>	<b>164</b>	<b>15.9</b>
<b>Total</b>	19,057	<b>2,080</b>	<b>9.2</b>	6,981	<b>431</b>	<b>16.2</b>	<b>26,038</b>	<b>2,511</b>	<b>10.4</b>
<b>As of 31<sup>st</sup> December 2025</b>									
<b>Executives</b>	410	<b>37</b>	<b>11.1</b>	48	<b>2</b>	<b>24.0</b>	<b>439</b>	<b>39</b>	<b>11.3</b>
<b>Managers</b>	1,732	<b>261</b>	<b>6.6</b>	379	<b>29</b>	<b>13.1</b>	<b>2,065</b>	<b>290</b>	<b>7.1</b>
<b>Employees</b>	23,298	<b>1,680</b>	<b>13.9</b>	6,510	<b>410</b>	<b>15.9</b>	<b>29,642</b>	<b>2,090</b>	<b>14.2</b>
<b>Workers and intermediates</b>	1,659	<b>157</b>	<b>10.6</b>	183	<b>4</b>	<b>45.8</b>	<b>1,842</b>	<b>161</b>	<b>11.4</b>
<b>Total</b>	27,099	<b>2,135</b>	<b>12.7</b>	7,120	<b>445</b>	<b>16.0</b>	<b>34,219</b>	<b>2,580</b>	<b>13.3</b>

<sup>36</sup>For data regarding total training hours at the Group level, please refer to the "Talent" chapter. The data presented in the following tables refers only to Tenova metals, as the breakdown by gender and professional category are not available for TAKRAF.

**GRI 404-3** Percentage of employees receiving regular performance and career development reviews**Employees receiving regular performance and career development reviews (%)**

Professional category	As of 31 <sup>st</sup> December 2024			As of 31 <sup>st</sup> December 2025		
	Male	Female	Total	Male	Female	Total
<b>Executives</b>	92.7%	100.0%	<b>93.0%</b>	100.0%	100.0%	<b>100.0%</b>
<b>Managers</b>	96.9%	100.0%	<b>97.2%</b>	98.9%	96.6%	<b>98.6%</b>
<b>Employees</b>	90.7%	92.2%	<b>91.0%</b>	89.8%	92.4%	<b>90.3%</b>
<b>Workers and intermediates</b>	81.0%	0.0%	<b>80.5%</b>	82.8%	100.0%	<b>83.2%</b>
<b>Total</b>	<b>90.7%</b>	<b>92.6%</b>	<b>91.0%</b>	<b>90.5%</b>	<b>92.8%</b>	<b>90.9%</b>

**Our commitment to a Transparent Governance****Governance and ESG Management****GRI 2-9** Governance Structure and Composition**Governance composition (as of 31<sup>st</sup> December, 2025)**

Member Name	Gender	Executive and non-executive members <sup>37</sup>	Competencies relevant to the impacts of the organization
<b>Paolo Argenta</b>	M	Executive	Business and markets
<b>Andrea Alberto Lovato</b>	M	Executive	Business and markets
<b>Federico Metzger</b>	M	Executive	Human resources
<b>Roberto Pancaldi</b>	M	Executive	Business and markets
<b>Andrea Costantino Rocca</b>	M	Non-executive	Strategy, business and markets
<b>Gianfelice Rocca<sup>38</sup></b>	M	Non-executive	Strategy, business
<b>Michele Zerbi</b>	M	Non-executive	Administration, finance, internal controls

<sup>37</sup> The term "Executive" is used according to the definition provided by the "Codice di Autodisciplina delle società quotate".

<sup>38</sup> Gianfelice Rocca is the Chairman of the Board, and he is a Board Member in 2 listed companies and in various companies of Techint Group or other institutions in the education realm.

## Compliance and Ethics

### GRI 205-2 Communication and training about anti-corruption policies and procedures<sup>39</sup>

#### Governance body members and employees that have received training on anti-corruption

	As at 31 <sup>st</sup> December 2024		As at 31 <sup>st</sup> December 2025	
	N. of people that have received training	Percentage of people that have received training	N. of people that have received training	Percentage of people that have received training
<b>Governance body members</b>	-	0.0%	-	0.0%
<b>Executives</b>	14	32.6%	39	100.0%
<b>Managers</b>	176	62.2%	276	95.2%
<b>Employees, workers and intermediates</b>	810	37.2%	2,017	89.6%
<b>Total</b>	<b>1,000</b>	<b>39.9%</b>	<b>2,332</b>	<b>90.1%</b>

#### Employees that have received training on anti-corruption

	As at 31 <sup>st</sup> December 2024		As at 31 <sup>st</sup> December 2025	
	N. of people that have received training	Percentage of people that have received training	N. of people that have received training	Percentage of people that have received training
<b>Africa</b>	78	56.5%	129	95.6%
<b>Asia</b>	424	56.1%	729	91.2%
<b>Europe</b>	305	27.2%	1,021	88.6%
<b>North America</b>	54	30.7%	151	83.0%
<b>Oceania</b>	42	100.0%	32	97.0%
<b>South America</b>	97	35.1%	270	97.1%
<b>Total</b>	<b>1,000</b>	<b>39.8%</b>	<b>2,332</b>	<b>90.4%</b>

<sup>39</sup> For reporting purposes, individuals who belong to both the Governance body members and the Executives categories have been counted once only and classified under the Executives category to prevent double counting. The same approach has been applied consistently across other GRI disclosures and previous reporting cycles.

## Our Supply Chain

### GRI 204-1 Proportion of spending on local suppliers

#### Proportion of spending on local suppliers<sup>40</sup>

2024			2025		
Local Spend [€]	Total Spend [€]	% of Spending on Local Suppliers	Local Spend [€]	Total Spend [€]	% of Spending on Local Suppliers
429,351,223	<b>594,896,074</b>	72.17%	444,002,922	<b>736,951,603</b>	60.25%

<sup>40</sup>The data does not include the legal entity LOI Poland Spolka z.o.o., as the purchasing data were not yet fully integrated into the management system, which has caused difficulties in retrieving the relevant information.

# GRI

## Content Index

Tenova Group and its fully consolidated subsidiaries operating within the framework of the Tenova Metals business and TAKRAF Mining business have reported the information cited in this GRI content index for the period 1<sup>st</sup> January 2025 – 31<sup>st</sup> December 2025 with reference to the GRI Standards. For more detailed information please refer to the “About this Report”.

**Statement of use** Tenova Group has reported in accordance with the GRI Standards for the period from 1<sup>st</sup> January to 31<sup>st</sup> December 2025.

**GRI 1 used** GRI 1: Foundation 2021

**Applicable GRI Sector Standard(s)** NA

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
GRI 2: General Disclosures 2021	2-1 Organizational details	Pag. 6, 8, 9			
	2-2 Entities included in the organization’s sustainability reporting	Pag. 5  The fully consolidated subsidiaries operating within the framework of the Tenova Metals business, as of 31 <sup>st</sup> December 2025, are the following: Tenova S.p.A., Tenova Goodfellow Inc., Tenova Technologies (Tianjin) Co. Ltd., LOI Thermprocess GmbH, Tenova Technologies Private Limited, Tenova Advanced Technologies Ltd., HYL Technologies S.A. de C.V., LOI Poland Spolka z.o.o., Tenova South Africa (Pty) Ltd., Tenova Inc., Tenova East Europe LLC is excluded from the reporting perimeter.  The fully consolidated subsidiaries operating within the framework of the Tenova Mining business, as of 31 <sup>st</sup> December 2024, are the following:  TAKRAF Australia Pty Ltd., TAKRAF Do Brasil Equipamentos para mineracao Ltda, TAKRAF Canada Inc., TAKRAF Chile SpA, TAKRAF Mining Technology (Beijing) Co. Ltd., TAKRAF GmbH, TAKRAF India Private Limited, TAKRAF GmbH – Representative Office, TAKRAF México S. de R.L. de C.V., TAKRAF S.A.C., TAKRAF Eurasia LLC, TAKRAF South Africa Pty Ltd., TAKRAF USA Inc., TAKRAF Kazakhstan			

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
GRI 2: General Disclosures 2021	2-3 Reporting period, frequency and contact point	Pag. 5			
	2-4 Restatements of information	Some comparative figures for 2024 have been restated due to refinements in the calculation and data collection methodology and are explicitly indicated in the relevant sections. For the data previously published please refer to what was reported in the previous Sustainability Report.			
	2-5 External assurance	This Sustainability Report has not been externally assured.			
	2-6 Activities, value chain and other business relationships	Pag. 6,8, 81-82			
	2-7 Employees	Pag. 58, 92			
	2-8 Workers who are not employees	Pag. 58, 95			
	2-9 Governance structure and composition	Pag. 74, 100			
	2-10: Nomination and selection of the highest governance body	Pag. 74			
	2-11: Chair of the highest governance body	Pag. 74			
	2-12: Role of the highest governance body in overseeing the management of impacts	Pag. 74-75			
	2-13: Delegation of responsibility for managing impacts	Pag. 74			
	2-14: Role of the highest governance body in sustainability reporting	Pag. 5, 74			

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
GRI 2: General Disclosures 2021	<b>2-15: Conflicts of interest</b>	Pag. 77			
	<b>2-16: Communication of critical concerns</b>	Pag. 78			
	<b>2-17: Collective knowledge of the highest governance body</b>	Pag. 74			
	<b>2-18: Evaluation of the performance of the highest governance body</b>	In 2025 the Group did not carry out a documented evaluation of the performance of the highest governance body.			
	<b>2-19: Remuneration policies</b>		All Indicator Requirements	Confidentiality constraints	In compliance with current regulations, Tenova Group has chosen not to disclose the information requested by the 2-19 indicator for reasons of confidentiality
	<b>2-20: Process to determine remuneration</b>		All Indicator Requirements	Confidentiality constraints	In compliance with current regulations, Tenova Group has chosen not to disclose the information requested by the 2-20 indicator for reasons of confidentiality

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
<b>GRI 2: General Disclosures 2021</b>	<b>2-21: Annual total compensation ratio</b>		All Indicator Requirements	Confidentiality constraints	In compliance with current regulations, Tenova Group has chosen not to disclose the information requested by the 2-21 indicator for reasons of confidentiality
	<b>2-22 Statement on sustainable development strategy</b>	Pag. 3, 17-18			
	<b>2-23: Policy commitments</b>	Pag. 17-18	For further information on Tenova Group policy commitments for responsible business conduct, please refer to: <a href="#">Tenova website</a> <a href="#">TAKRAF website</a>		
	<b>2-24: Embedding policy commitments</b>	Pag. 74-76			
	<b>2-25: Processes to remediate negative impacts</b>	Pag. 75, 76			
	<b>2-26: Mechanisms for seeking advice and raising concerns</b>	Pag. 77, 78			
	<b>2-27 Compliance with laws and regulations</b>	During 2025 there were no significant instances of non-compliance with laws and regulation nor related fines.			
	<b>2-28 Membership associations</b>	Pag. 75			
	<b>2-29 Approach to stakeholder engagement</b>	Pag. 75			
	<b>2-30 Collective bargaining agreements</b>	Pag. 58,70			

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
<b>Material topics</b>					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Pag. 13-15			
	3-2 List of material topics	Pag. 15, 87-89			
<b>Energy</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 52-53, 87-89			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Pag. 53, 90			
<b>Climate Change mitigation</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 52, 87-89			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Pag. 54-55, 91			
	305-2 Energy indirect (Scope 2) GHG emissions	Pag. 54-55, 91			
<b>Resource inflows, including resource use</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 52, 57, 87-89			
<b>Resource outflows, related to products and services</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 52, 57, 87-89			
<b>Working conditions</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 59-62, 87-89			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Pag. 59-62			

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
<b>GRI 403: Occupational Health and Safety 2018</b>	<b>403-2 Hazard identification, risk assessment, and incident investigation</b>	Pag. 59-62			
	<b>403-3 Occupational health services</b>	Pag. 59-62			
	<b>403-4 Worker participation, consultation, and communication on occupational health and safety</b>	Pag. 59-62 A formal joint management-worker health and safety committee is not present.			
	<b>403-5 Worker training on occupational health and safety</b>	Pag. 60-61			
	<b>403-6 Promotion of worker health</b>	Pag. 61-62, 70-71			
	<b>403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships</b>	Pag. 59-62			
	<b>403-9 Work-related injuries</b>	Pag. 60, 95	403-9 (b)	Unavailability of data	The Group is currently engaged in improving the monitoring system. In this regard, it was not possible to retrieve the data regarding hours worked by non-employee workers for 2025.

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
<b>Equal treatment and opportunities for all</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 58-59, 63-71, 87-89			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Pag. 64			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Pag. 68, 99			
	404-3 Percentage of employees receiving regular performance and career development reviews	Pag. 68, 100			
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Pag. 63, 96			
<b>Other work-related rights</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 49, 79-80, 87-89			
<b>Communities' social and cultural rights</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 57-59, 69, 87-89			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Pag. 69, 97-98			
GRI 204: Procurement practices 2016	204-1 Proportion of spending on local suppliers	Pag. 102			

GRI STANDARDS	DISCLOSURE	LOCATION	OMISSION		
			Requirements omitted	Reason	Explanation
<b>Personal safety of consumers and end-users</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 39-42, 87-89			
<b>Corporate culture</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 73, 76-80, 87-89			
<b>Protection of whistleblowers</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 76-78, 87-89			
<b>Management of relationships with suppliers including payment practices</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 77-78, 81-82, 87-89			
<b>Corruption and bribery</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 76-78, 87-89			
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Pag. 78, 100-101			
	205-3 Confirmed incidents of corruption and actions taken	Pag. 78 During 2025 there were no confirmed incidents of corruption			
<b>Innovation and digital transformation</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pag. 15, 43-50, 87-89			



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