



# ABS sustainability

SUSTAINABILITY REPORT 2022



















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# SUSTAINABILITY REPORT 2022

2021-2022 Voluntary Non-Financial Statement  
pursuant to Italian Legislative Decree 254/2016



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«We believe that excellence can only be achieved through the constant search for harmony between man and machine, basing actions on shared values.»



**Carla De Colle**  
Chairman

In our second edition of the Sustainability Report, we are proud to present the financial, social and environmental values generated by our activity by extending the analysis to the entire Steelmaking Division, i.e. to the parent company ABS SpA and its subsidiaries, thus including the two production sites in Cagnacco (Italy) and Sisak (Croatia), the research centre in Metz (France), the sales offices and the new ABS Service distribution centre.

The use of the word “report” this year is not accidental: in fact, we have chosen to use the universal language of numbers because we want the sharing of our journey to be of immediate impact and understanding. We believe that the data collection, monitoring, evaluation and analysis can tangibly represent the virtuous path that we have been following for several years.

In a historical context characterised by great uncertainty and market fluctuations, the **DNA/ABS** provides stability and guides us towards the constant search for innovation and the right balance: the drive to reduce consumption, to find renewable energy sources, to self-produce energy and to decarbonise processes and products are transformed into ambitious projects and investment plans.

With this in mind, we introduced new Industry 4.0 plants and technologies to improve people’s safety, energy efficiency and process optimisation.

We firmly believe that excellence can only be achieved through the constant search for harmony between man and machine, basing actions on shared values, which have become the core of a lasting development strategy on which we intend to build our sense of belonging and the responsibility of our employees. Innovating means generating long-term value, and it is with this spirit that we will continue to work alongside our customers, our suppliers and our territory on a daily basis.

## LETTERS TO THE STAKEHOLDERS

The solidity of our path, confirmed by the excellent results of the last financial year, confirms that the path taken years ago was the right choice: concrete and applied sustainability, as a central pillar of our strategy, drives us to constant Level UP, characterises us and creates value for all our stakeholders.

The last period was characterised by geopolitical events that strongly affected global supply chains and also impacted our processes: we were prepared and our ability – developed over time – to be flexible and resilient emerged.

In this context of uncertainty, we believe it is even more important to be forward-looking, to have a strategic vision, to plan for a lasting economic growth that rethinks production models with innovation and measurable results.

Our goal towards “zero emissions” is realised in the many development projects aimed at innovating processes, methods, materials, technologies and supported by a multi-year investment plan of more than 750 million.

We recently invested in the revamping of the Sisak melting furnace with the installation of Danieli Digimelter and Q-ONE technology, which minimises CO<sub>2</sub> emissions related to the steel melting process and reduces energy consumption; the same technology that we are also planning to install in the Cargnacco furnaces together with a 15MW solar park for the generation and self-consumption of electricity.

Investments are also planned in the area of logistics: the goal is to achieve within three years a 70% share of rail freight traffic, in and out of our plants, with a consequent reduction in the impact of transport-related GHG emissions.

Activities to improve safety and the environment were extended to the entire Steelmaking perimeter: the Sisak plant achieved ISO 14001, ISO 45001 and ISO 50001 certification in 2022, while our research centre ABS Centre Métallurgique (ACM) in Metz expects to achieve safety certification in the next financial year.

The continuous evolution of the skills of each individual generates growth and innovation for the community. For this reason, we continue to train our employees throughout their lives in the company, giving top priority to health and safety issues.

Concern for the well-being of all is imperative, so we are committed on a daily basis to spreading the culture of sustainability by being an example, respecting people and the environment.



**Stefano Scolari**  
Chief Executive  
Officer





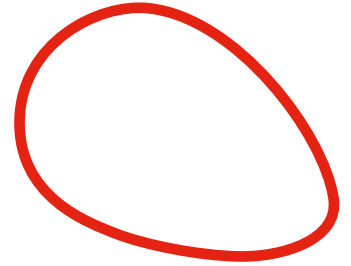
# LETTERS TO THE STAKEHOLDERS

«The continuous evolution of  
the skills of each individual  
generates growth and innovation  
for the community.»





# HIGHLIGHTS



## TURNOVER

**1,519.46 M €**

1,519,462,203 €

## EBITDA

**192.76 M €**

192,758,149 €

## INVESTMENTS IN INNOVATION

**35 M €**

## INVESTMENTS IN R&D

**7.9 M €**

(last 3 financial years)

## RAW MATERIALS OF RECYCLED ORIGIN

**94%**

(expressed by weight)

## SLAG RECOVERY

**+131,000 t**

## SPECIFIC WATER CONSUMPTION

**1.40 m<sup>3</sup>/t**

## DIRECT GHG EMISSIONS

**- 3.85%**

## NEW HIRES

**223**

## TRAINING

**+20,000 hours**

**100%**

## OF OPERATING SITES

covered by ISO 14001 ·  
50001 · 45001

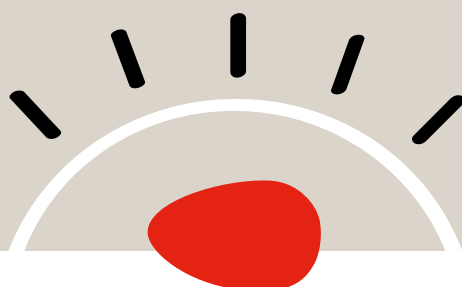




# ABOUT US

## VISION

We strive to be the partner of choice, while we work to secure valuable solutions using state-of-the-art processes and technologies for a sustainable progress.



With the passion and excellence of our people we work together with our customers to provide products and services of absolute quality. We invest in technology and organization for the prosperity of all our stakeholders.

## MISSION

The idea that sustainability should not remain a merely abstract concept is what guided ABS in publishing its first sustainability report (2021) by formalising its commitment to pursue and measure sustainability results and goals in an objective manner.

The preparation of ABS's second sustainability report consolidates its commitment to pursuing and measuring sustainability results and goals in an objective manner by extending the repor-

ting scope to the Steelmaking Division of the Danieli Group.

The Danieli Group<sup>1</sup> designs, produces and installs machines and innovative plants worldwide for the iron and steel industry, the non-ferrous metals sector and the production of energy.

1. For further details, please refer to the Methodological Note section of this document.









# ABOUT US

The Steelmaking Division, i.e. the parent company ABS SpA and its subsidiaries, (hereinafter ABS), consists of:

## **ABS SpA - Acciaierie Bertoli Safau SpA**

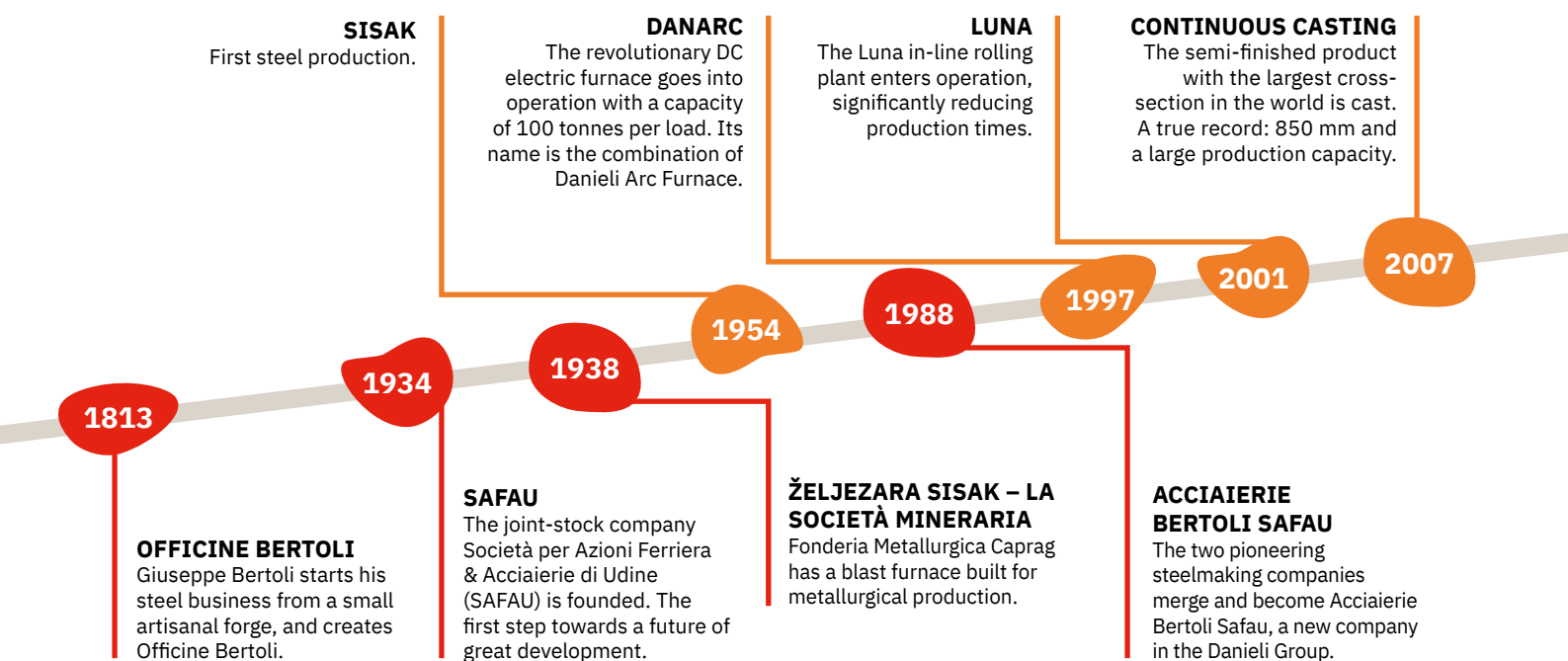
Acciaierie Bertoli Safau S.p.A., (hereinafter ABS SpA), was created at its Cagnacco site in 1988 by the merger of two steel mills of long experience and high specialisation: “Officine Bertoli” founded in 1813 and “Safau”, whose origins date back to 1934. With a steelmaking expertise gained in over 200 years of history, supported by the technological strength and the “Innovaction”<sup>2</sup> that distinguish the Danieli Group, ABS SpA plays a worldwide leadership role in the steel industry.

ABS SpA’s business is the production and sale of special steels. The company operates in a position of leadership in Europe in the special structural steels

sector, with production to order of high quality products for the most demanding uses. In fact, it supplies special steels with high technical performance to sectors such as: automotive, trucks, earthmoving, agricultural, industrial vehicles, precision mechanics, wind, oil & gas, power generation, nuclear, railway, naval and military.

ABS SpA increased its production capacity year after year, reaching an output of about 1,400,000 tonnes and currently produces about a thousand different qualities of steel (ingots, blooms, bars), in products of different formats, thanks to the work of more than one thousand two hundred employees/collaborators.

ABS SpA, with the aim of guaranteeing an excellent and widespread service to its customers, created the service and distribution centre called ABS Service in March 2022. Dedicated to machine shops



2. Part of the group's motto, employee propensity to generate value through innovation and internal policy that rewards the most innovative ideas each year.

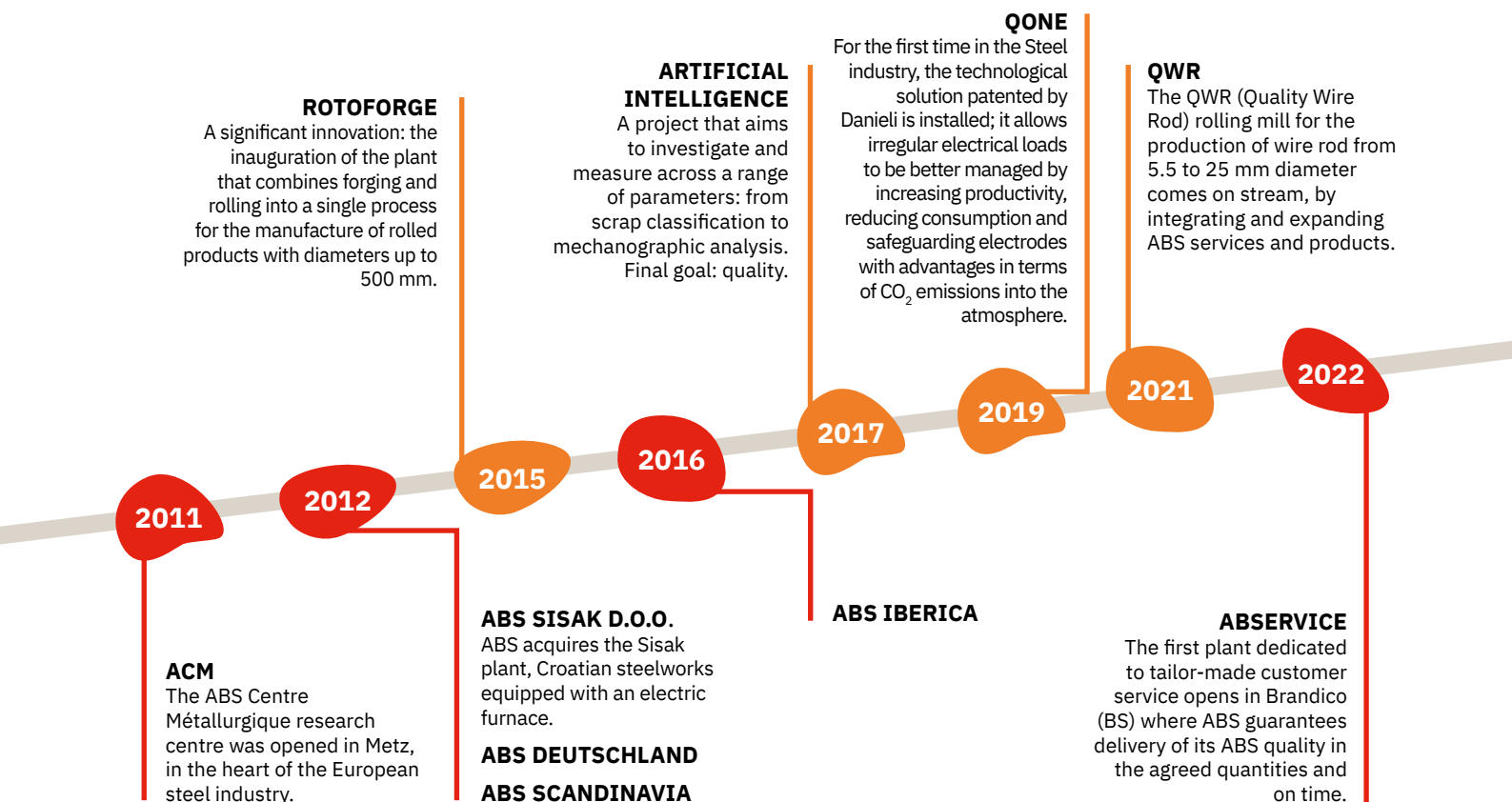
and medium-sized companies requiring specific quantities with just-in-time deliveries, the ABS Service project aims to develop a capillary distribution network for ABS products throughout the world to provide a service tailored to each Customer's requirements combined with high product quality. **"Think global, Act local".**

The company covers a total area of 1,114,000 square metres on three sites. The Cargnacco site, home to the headquarters and main production plant, covers an area between three municipalities, Pavia di Udine, Udine and Pozzuolo del Friuli. The sales offices are located in Brescia. Finally, ABS Service is based in the municipality of Brandico.

### ABS SISAK d.o.o

Željezara Sisak has a long tradition and experience in metallurgical production, which began back in 1938 with the construction of a blast furnace, owned by Società Mineraria – Fonderia Metallurgica Caprag. Steel production began in 1954. On May 31, 2012, Acciaierie Bertoli Safau bought the same plants from the American company CMC, and called it ABS SISAK d.o.o..

Production was restarted at the end of 2017. The Croatian production plant in Sisak is the first plant internationally to be equipped in 2019 with a melting furnace, the Q-ONE, developed and engineered by Danieli Automation. After the big earthquake





# ABOUT US

in December 2020 that caused a long production stoppage, today Sisak, thanks also to an increase in its workforce, is aiming at the production of 350,000 tonnes per year of special steels.

## **ACM - ABS Centre Métallurgique S.A.S.**

The ABS research and development centre, called ACM, or ABS Centre Métallurgique, was established in 2011 and is located in Metz, France, in the heart of the European steel industry. ACM is the centre of excellence for research and study of steel production. Its activities cover the entire operating chain, from the raw material (scrap) to the finished product developed according to specific customer and market requirements.

The main goals are the development of new ranges of innovative high-performance steels with reduced CO<sub>2</sub> footprint, but also the development of digital twins<sup>3</sup> to support the different production areas for the understanding of both metallurgical mechanisms and waste reduction, the motto being “Doing the right job the very first time”.

Through accreditation according to the international standard ISO 17025 (General requirements for the competence of testing and calibration laboratories), ACM carries out different types of tests such as: tensile tests, impact bending tests, hardness tests and/or chemical analysis.



## **ABS Deutschland GmbH (Germany) - ABS Scandinavia AB (Sweden) - ABS Iberica SL (Spain)**

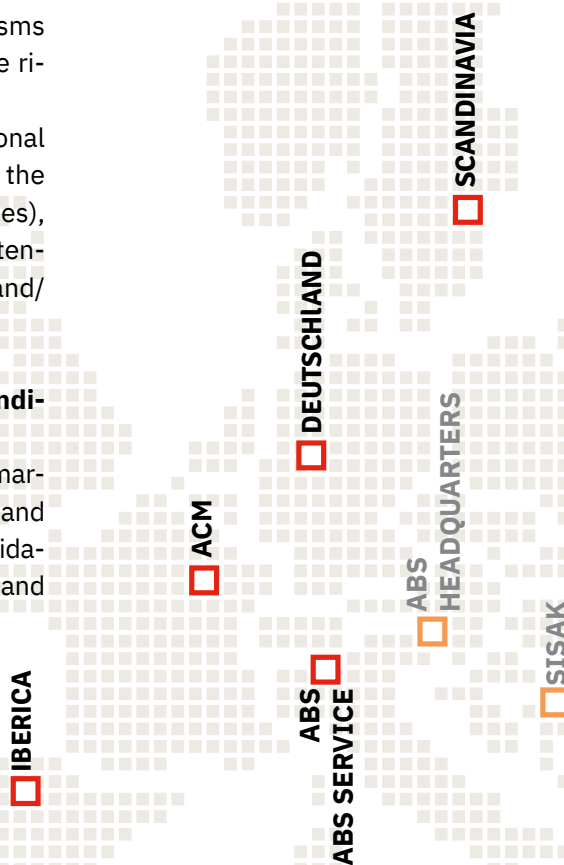
The three companies operate in their respective markets for the development of commercial activities and sales of special steels. A presence that is consolidated over time, increasingly developing an on-demand

service with local warehouses that allow a reduction in delivery times and greater flexibility in supply with a service of greater customer satisfaction.

Innovation, technological components and steelmaking expertise gained by ABS in over 200 years of history, guarantee ABS a leading role worldwide in the production of special steels with high technological performance that are used in many sectors: automotive, trucks, earthmoving, agricultural, industrial vehicles, precision mechanics, wind, oil & gas, power generation, nuclear, railway, naval and military.

In addition to producing steel and marketing it, ABS companies share a common goal of improving, day after day, the sustainability of the business by respecting the environment and the communities in which they operate.

-  production site
-  sales office



3. Digital twins of plants that, through the development of advanced digital models, simulate their behaviour.



...improving, day after day,  
the sustainability of the business  
by respecting the environment  
and the communities...



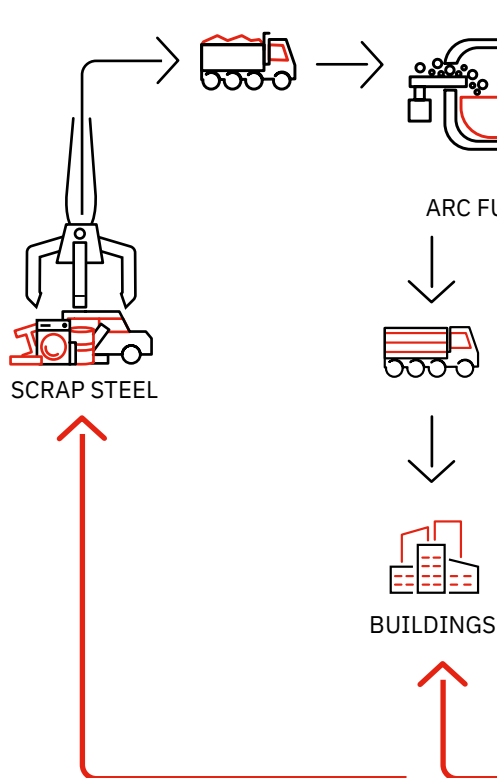
# ABOUT US

## PRODUCTS

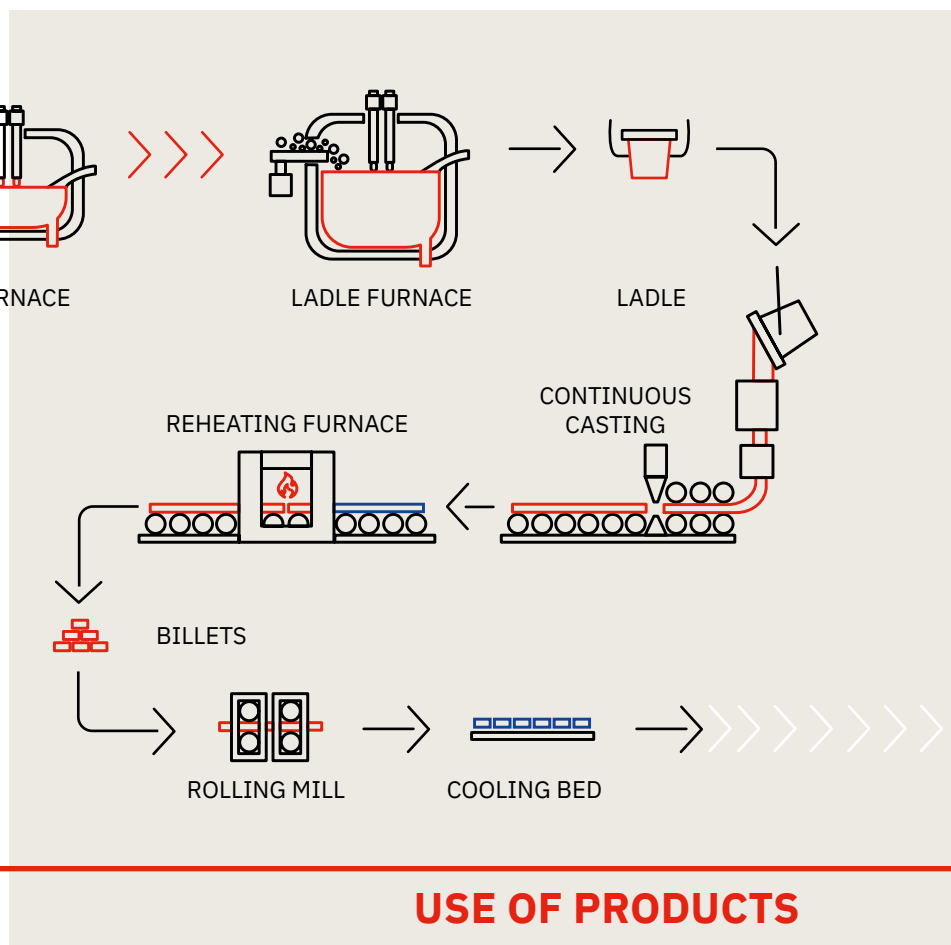
The development of ABS products goes hand in hand with the evolution of the markets. The company includes four business lines specialized in die forming, forging, mechanical, and wire rod products, and Global Exports, the fifth line which has, instead, a geo-

graphical focus. The die forming line is mainly aimed at customers in the automotive (passenger cars, commercial vehicles), truck and earthmoving sectors, as well as a constant number of customers in the oil & gas sector. The parts made with our steels include

## SCRAP FLOW



## PRODUCTION PROCESS



## USE OF PRODUCTS



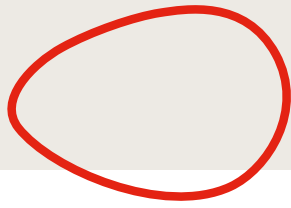
crankshafts, drive shafts, gear forks, gears, flanges and valve bodies. The forging line focuses on the sale of continuous casting blooms and ingots, which represent about 90% of its order volumes, and forgings.

These products are intended for the manufacture of rings, gearboxes, bearings, flanges and components for the wind and oil & gas markets, railway wheels and axles, cylinders for the industrial, medical and automotive sectors. The mechanical line is focused towards mechanical workshops and distribution. Sales volumes are concentrated on treated rolled products and cold-processed products of the Qualisteel line, intended for the production of linkage for the wind and construction industry, gears, gearboxes, transmission shafts for the industrial, automotive, truck and earthmoving plant engineering sectors. With the inauguration of the new QWR plant (Quality Wire Rod 4.0 - Saturn line) at the end of 2020, the new wire rod business line was created to target the automotive market, for applications such as car springs and suspensions, bearings, engine fixing bolts, connecting rods, as well as the cold drawing, welding, prestressed reinforced concrete, and low and medium-high

carbon sectors. The main targets of these business lines are the Italian and European markets. Global Export, on the other hand, is dedicated to the development of the entire ABS product range on a global level, with the aim of covering the automotive, truck (USA, Mexico, Brazil, UK), oil & gas (USA, Middle and Far East) and wind power (India, Brazil, South Africa) markets. ABS products are developed to meet the quality requirements of our customers, responding to the constant search for innovative solutions as required by an ever-evolving market. The **forged products** manufactured by ABS are part of a wide family of products extending over a wide range of sizes, types of steel (case-hardened, quenched and tempered steels), finishes and heat treatment.

This type of product is produced by the Danieli Breda automatic forging plant at the Cargnacco site. **Rotoforged** products were the innovative products created to combine the strengths of rolled and forged products into a single large-size product. The ABS SpA team and the Danieli Group have designed the largest plant in the world for the rolling of long products: the RF 1800 Stand. With high value-added





# ABOUT US

features, the large rotoforged products combine the structural integrity of forged products with the surface quality characteristic of rolled products.

In the two Luna and Marte rolling lines, ABS SpA produces rolled products of different types. The rolling stands are fed from continuous casting products or with ingots, using the hot charge process for the latter in order to reduce energy consumption whenever possible. To guarantee the maximum quality, we select the most suitable rolling methods and constantly monitor the reheating parameters. The rolled products are then cooled using multiple cooling cycles on air cooling beds, insulated cooling beds for controlled cooling at critical stages, or in slow cooling pits. Finally, the product is thoroughly checked and conditioned for the repair of any defect that might have been detected.

**Rolled** products can then be delivered to the customers directly or advanced to subsequent finishing and/or heat treatment processes, where required or necessary. One of the salient features of our range of ingots is its flexibility to be tailored as needed to meet customer requirements. Different round, square, rectangular or polygonal sections can be produced using a mould car or a fixed mould station as required. After casting, the ingots are either delivered to sales in their raw state or continue towards the rolling line. The wide range of **raw blooms** from continuous casting, where a record-breaking 850 mm cross-section is possible, is intended not only for sales but also for feeding our own internal rolled and forged product production flows.

ABS is also directly active in the circular economy through the production, at its Cagnacco site, and more specifically at the Global Blue plant, of indu-



strial aggregates from the treatment and processing of smelting slag. These aggregates, referred to as Ecog gravel Black and Ecog gravel White (depending on the nature of the slag from which they are derived), are produced with EC marking and are used in the construction and road building markets. Ecog gravel Black is produced in 4 different grain sizes: 0-4 mm, 4-8 mm 8-11 and to a lesser extent 11-32 mm, while Ecog gravel White is produced in the unique 0-2 mm grain size.

## MARKETS

In 2021, as reported by Eurofer, the production of crude steel in the EU27<sup>4</sup> was 152 million tonnes, up 10% compared to 2020, returning to the levels recorded in 2019. After the losses incurred during 2020 due to the restrictions necessitated by the containment of the pandemic, a rapid recovery of some sectors, including home appliances and automotive, led to an increase in demand, and concomitant increase in production, as early as the second quarter of 2021, which continued into the third quarter due to the problems encountered along the global supply chain.

For the year 2021 as a whole, imports of finished products increased by 35%, after a drop (-15%) in 2020, as did imports of flat products (+40%) and imports of long products (+21%).

The main countries of origin of steel imports into the EU were Turkey, the Russian Federation, South Korea, India and Ukraine; these five countries accounted for 56% of total steel imports into the EU27.

During 2021, exports of finished products were down -2% compared to 2020, due to a decrease in exports of flat products (-3%) and a decrease in exports of long products. Approximately 20 per cent of export volumes are intended for the UK, Turkey, the US, Switzerland and China.

The initial low availability of steel due to the reduction in production during Covid led to fears of a shortage of supply, which led to a sharp increase in apparent demand.

During the same period, the supply chains of the different production chains suffered from a lack of certain raw materials and/or components that altered their ability to meet final demand (i.e. microchips in the automotive sector).

This strong demand for raw materials led to an increase in the prices of all commodities to unprecedented levels. The development of the main energy factors (oil, electricity and gas) and scrap strongly

## ABS MARKET SHARES

**25%** Europe

**66%** Italy

**09%** World

4. EUROFER - Economic and steelmarket outlook 2022-2023 - ECONOMIC REPORT Second quarter report Data up to, and including, fourth quarter 2021- May 2022



# ABOUT US

influenced the prices of all steel products.

ABS operates in a rapidly changing international market. Ensuring customer satisfaction requires continuous exploration of new processes, methods and technologies. ABS can count on a long experience. Yet, to ensure effective results, ABS knows that its focus needs to remain on developing its vision with planning and creativity. ABS seeks to develop solutions with a high quality content, seamlessly combining the technology of its plants with its deep know-how of the steel production and transformation processes.

ABS's sustainability orientation is closely co-ordinated with its market orientation. Sectors with a high degree of transformation towards a low-car-

bon economy such as the electric car sector and the renewable energy sector choose to work with ABS products.

Reducing CO<sub>2</sub> levels for an energy-intensive sector such as ours is crucial to achieving the EU's climate targets, and the market is now also calling for a move towards Net Zero. This is a path of transition that ABS has been following for years. It is a fundamental value for its sustainability path.







## FROM INDUSTRY 4.0 TO 5.0

European competitiveness in the steel industry are underpinned by innovation, technology, quality and highly qualified people. A modern and competitive steel industry is essential for Europe's economic growth and can be built and maintained by a highly skilled workforce and a solid industrial sector.

The current Industry 4.0 standard aims to redefine the industry sector by orienting it towards growth through the adoption of new digital technologies, new materials and new processes. 4.0 refers to "the use in industrial production of newly developed and often interconnected digital technologies that enable new and more efficient processes and in some cases produce new goods and services"<sup>5</sup>.

For the steel sector, Industry 4.0 is a paradigm in which digitalization becomes a precondition.

While quality, flexibility and productivity remain central themes of a production system, it is equally important to ensure that operational data remain visible in real time and provide information for better and faster decision-making along all the value chain (design, procurement, logistics, distribution, sales).

The adoption of the Industry 4.0 model has the potential to create smart and efficient steel mills, which help to reduce emissions, improve product quality and cut down on plant downtime. Although sensors have long been used to collect data within steel mills, only part of the collected data is actually analysed and used. By generating a holistic view of the steel making process, the analysis of big data from multiple areas allows to achieve significant progress.

Artificial intelligence (AI) plays a significant role in smart manufacturing by providing assistance, visualizing potential scenarios (for example, time for a pro-

cess to complete vs. energy consumption), and offering automated diagnostics and prognostics for early warning of developing issues on a production line. The introduction of AI will offer more than a step change in improvement and will result in a complete revolution in the understanding of systems and processes.

However, Industry 4.0 lacks adequate consideration of the environmental, social and sustainable development aspects of economic activities, which are instead analysed by Industry 5.0.

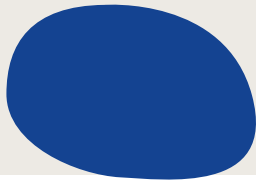
Industry 5.0 "provides a vision of industry that aims beyond efficiency and productivity as the sole goals, and reinforces the role and the contribution of industry to society". (European Commission). It complements the "Industry 4.0" approach by specifically putting research and innovation at the service of the transition to a sustainable, human-centric and resilient European industry.

The 5.0 paradigm is in line with the EU vision of "competitive sustainability"<sup>6</sup> in which industry itself becomes a driving force for systemic transformation and planetary regeneration by "returning" the resources used in the past. An industry interdependent with the natural world, adaptive to change and based on core accountability for social justice, which necessarily entails redesigning value chains.

5. OECD, The Fourth Industrial Revolution

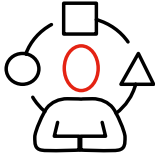
6. European Commission, Directorate-General for Research and Innovation, Renda, A., Schwaag Serger, S., Tataj, D., et al., *Industry 5.0, a transformative vision for Europe : governing systemic transformations towards a sustainable industry*, Publications Office of the European Union, 2022, <https://data.europa.eu/doi/10.2777/17322>





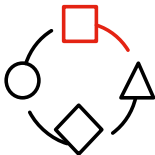
# MEGATREND

An industrial system based on the Industry 5.0 paradigm will ideally be:



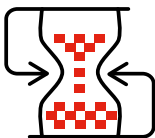
**Responsible in terms of value chain and ecosystem,  
no longer focused on optimising individual businesses**

**Regenerative and circular by design, rather than  
consumption-based**



**Self-sufficient and adaptive, less fragile, rather than  
dependent on the import of strategic raw materials  
and energy**

**Decentralised, rather than totally globalised**



**Digitalised in order to accelerate traditional  
consumption patterns**

## **CARBON NEUTRALITY AND CARBON NEUTRAL STEEL**

Transition to a climate-neutral society is both an urgent challenge and an opportunity to build a better future for all. Global policies are moving towards gradual, but accelerating decarbonisation.

This is reflected in the steel sector in three ways:

- Changing customer requirements and a growing demand for climate-friendly steel products. This is a trend that has already been observed in a number of sectors, including the automotive sector, where more and more manufacturers have the ambitious goal of completely eliminating emissions from their entire value chains and looking at their business in full life-cycle perspective.
- The increasingly ambitious targets of Countries

and the rising cost of CO<sub>2</sub> credits also presage a tightening of regulations on greenhouse gas emissions, as it is also stated in the European Green Deal.

- A growing interest in sustainability on the part of both public and private investors, who have confirmed their commitment to developing environmentally friendly businesses based on increasingly sustainable investments.

The steel sector has the highest emissions, and steel making is energy intensive.

Globally, the sector is responsible for about 7% of CO<sub>2</sub> emissions. In the EU 27, 5% of total emissions, about 190 Mt of CO<sub>2</sub>, come from steel production alone<sup>7</sup>.

7. Somers, J., Technologies to decarbonise the EU steel industry, EUR 30982 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-47147-9 (online), doi:10.2760/069150 (online), JRC127468

The background of the page is a photograph of a beach. In the foreground, there is a dark, textured surface, possibly a piece of driftwood or a rock, with a blueish tint. Above this, the ocean waves are visible, with white foam from the surf. The sky is a pale, hazy blue. A large, dark blue, irregular shape, resembling a speech bubble or a drop, is positioned in the upper left quadrant of the page. Inside this shape, the text is written in white.

**An industry interdependent with  
the natural world, adaptive to  
change and based on core  
accountability for social justice.**



# MEGATREND

The trends to consider are<sup>8</sup>:

- The increase in the efficiency to maximise emission reductions in existing processes.
- An increase in the number of low-emission steel production projects to accelerate the learning curve, reduce costs and advance the commercial readiness of clean steel technologies.
- Developing the capacity to generate renewable energy to enable low-emission steel production.
- An amplification of inputs from the demand for green steel to incentivise producers and investors to direct capital towards lower emission assets.
- The development of policies to support low-emission steel production.

Today, we know that steel that is produced by melting recycled steel scrap in an electric arc furnace emits only a fraction of the CO<sub>2</sub> emissions of integrated steel mills because it is an almost fully electrified process. We are witnessing a steady shift to EAF technology that will reduce emissions, but creating a sustainable industry will require broader and bolder measures from all players in the steel value chain.

## THE CONFLICT BETWEEN RUSSIA AND UKRAINE

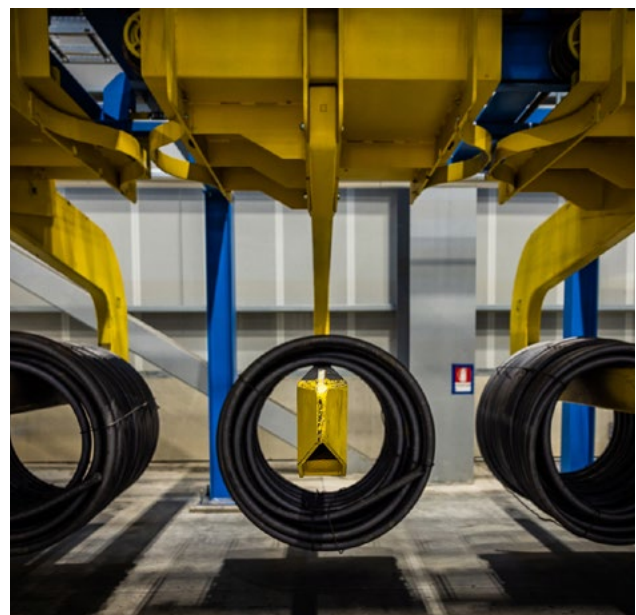
ABS also took this event into account in its megatrend analysis because of the potential long-term implications it could have for the steel industry.

The direct and immediate consequence of the conflict is a significant negative shock in the offer of steel and raw materials from Russia and Ukraine, which affects the European steel industry in particular, leading to an increase in steel and raw material prices. There will also be a slowdown in global economic growth, which will considerably reduce demand for

steel in the future<sup>9</sup>.

Should the conflict persist, a potential slowdown in the decarbonisation process caused by rising costs and declining income and access to gas supplies will have to be considered, as well as an increased focus on the structure of energy markets.

The global effects of the war in Ukraine, along with low growth in China, leads to lower growth expectations for global steel demand and uncertainty in forecasts for the years 2023 and 2024.



<sup>8</sup>. OECD Steel Committee - 91st session 29-31 March 2022

<sup>9</sup>. World Steel Association - Short Range Outlook (SRO) for 2022 and 2023

# OUR SUSTAINABILITY STRATEGY



ABS's sustainability strategy forms an integral part of its overall corporate strategy. It is the principle of sustainable action, the guide of all our short, medium and long-term projects and actions.

Our sustainable development strategy – defined taking into account enabling factors, megatrends and the 2030 Agenda – is leading ABS towards a low-carbon, high-innovation development model in which people are fundamental and customers central.

With this in mind, ABS is following an ambitious path, a path of continuous improvement, because where impacts cannot be removed, they must be reduced to preserve the environment and create value for the community.

In a global agenda of strong decreases in emissions, reduction is of strategic importance to ABS. ABS strives to improve the sustainability of its operations, aiming to anticipate evolving regulations on carbon emissions and environmental, social and governance (ESG) metrics to gain a competitive advantage.

Some of the strategic lines on which ABS is working are:

- **The evaluation and adoption of advanced and lower impact technologies**

Considerable investments in innovative technologies are offset by long-term benefits in terms of sustainability, better ESG performance and a better risk-cost of capital and quality ratio.

- **The increase in sustainable steel production**

The market is pushing our customers to reduce Scope 3 emissions and demand for low-carbon supplies, including steel, is growing. In particular, car manufacturers, which absorb 12% of the world's steel, are accelerating decarbonisation initiatives and looking for virtuous suppliers such as ABS.

- **The improvement of our ESG performance**

Improvement can ensure that projects are financed at a lower cost, resources are managed more efficiently, operational risk is reduced and resilience against future changes is increased.

- **A digitalisation that generates value**

ABS adopts technology to improve defect recognition, process safety and quality. ABS chose to quantify, monitor, record and evaluate sustainability performance and reporting through an IT platform. Our digital solutions also help improve productivity by optimising energy consumption, minimising waste and controlling emissions.

- **The acceleration of collaborations with stakeholders**

To accelerate the green transition, an alignment with our stakeholders is crucial to accelerate the necessary change and to enable the collaboration needed to co-develop feasible solutions to complex challenges.

Moreover, to make a positive impact on the world, ABS focuses on: using sustainable raw materials and business practices, spreading a shared culture of health and safety, improving the quality of life in the local area, protecting the environment, and making a real contribution to reducing global warming. All these actions are a clear signal of a commitment that ultimately would lead ABS customers to be more sustainable themselves.



# OUR SUSTAINABILITY STRATEGY

## VALUES

The ABS development model is based on a system of 7 values that represent the drivers on which the Steelmaking Development Plan is developed at the Group level.

In ABS, these values are the beacon that guides the activity. They represent the basis for the development of qualitative and/or quantitative medium- and long-term performance indicators. These indicators are applied and interpreted within the various business areas both to assess and measure the level of achievement of company-wide, area-wide, function-wide, and individual plan targets, and to achieve the transition from written values to automatic behaviours during normal business activities.



CUSTOMER IS  
CENTRAL



THE PERSON



TEAM SPIRIT



SUSTAINABILITY



INNOVATION



EXCELLENCE



ETHICS



**In ABS, these values are the  
beacon that guides the activity.**





# OUR APPROACH TO RISK

The risk management system naturally permeates all company functions. Each function is involved in specific development plans which include a range of actions for the mitigation of the risks identified.

The Board of Directors has ultimate responsibility for risk management within ABS. Management and members of the Managing Board are responsible for defining and implementing risk management procedures, and ensuring that risks are appropriately addressed and considered during strategic and business planning.

The process of identifying and managing risks is essential to ensure a model of business continuity that takes into account people and the environment. The risk management system of ABS is organized so that each department is responsible for the risks involving its specific business area.

By constructing a risk matrix, we identified the main risks and the relevant corrective actions. Using this tool we classified all possible events that could occur according to a frequency and severity index and, for each one, we identified the appropriate preventive and corrective actions. This approach was applied to the main corporate areas: environment, safety, quality and energy.

The Internal Audit function fits into this context by carrying out periodic risk assessments to identify the top risks and allow the implementation of the most appropriate mitigation actions.

The Internal Audit function also verifies that the internal control and risk management system is functional and effective, taking into account the development of the activities of the company and the context of reference, on an ongoing basis, ad hoc when specifically required, and in compliance with

international standards.

In order to facilitate the achievement of the key objectives of ABS, the Internal Audit function:


- Carries out specific interventions aimed at verifying that the rules and procedures of the control processes are complied with and that all the parties involved operate in accordance with the set objectives;
- Provides support to the other control bodies and, together with the players in the internal control and risk management system, ensures that the Company is managed in a manner that is sound, fair and consistent with its goals. The assessment and management of risks from a sustainability point of view is carried out not only through the different management systems adopted and required by the certification schemes the company is part of (ISO 14001 for environmental risks, ISO 45001 for health and safety risks, ISO 50001 for energy carrier management), but also by the assessment of more traditional risks such as safety, plant engineering, functional risks to ensure business continuity, and economic/financial risks.

The business risk management system takes into account the following risks<sup>10</sup>:

- Economic and financial risks, including:
  - Risks related to general state of the economy
  - Risk associated with market conditions
  - Country and credit risks
  - Liquidity risk
  - Risk related to changes in financial flows
  - Other risks related to insurance coverage
  - Exchange rate risk
- Risks related to commodity prices and relations with suppliers

<sup>10</sup>. "Please also see the Directors' Report (section "Management of business risks") in Danieli's Annual Report for a detailed discussion of risks associated with climate change as well as company policy."



A full-page background image showing a worker in a red safety suit, orange helmet, and white face mask walking on a metal grating in a large industrial facility. The worker is holding a black cable. In the background, there are yellow overhead cranes and various industrial equipment.

**The process of identifying and managing risks is essential to ensure a model of business continuity that takes into account people and the environment.**



# OUR APPROACH TO RISK

- Cyber risks
- Risks related to business continuity
- Plant safety and security risks
- Sustainability risks
  - Environmental risks
  - Health and safety risks
  - Risks associated with the management of energy carriers

- Risks associated with values and ethics

In coordination with the parent company Danieli, risks are managed at the Steelmaking segment level by aligning ABS operating procedures with those of all the other companies in the Group.

## ABS CERTIFICATIONS

In order to ensure proper management of energy and environmental aspects and to develop audit, performance monitoring and continuous improvement approaches over time, the ABS Cargnacco plant has adopted two management systems – Environment and Energy – certified and verified by third parties and compliant with the requirements

of the ISO 14001 and ISO 50001.

The Environmental Management System and its documentation structure represent an important tool for monitoring and constantly improving all those activities aimed at guaranteeing compliance with the legislative requirements to which the company must respond.

| SYSTEM CERTIFICATIONS | ABS Cargnacco | ABS Sisak | ACM |
|-----------------------|---------------|-----------|-----|
| ISO 9001              | ✓             | ✓         | ✓   |
| ISO 14001             | ✓             | ✓         |     |
| ISO 45001             | ✓             | ✓         |     |
| ISO 50001             | ✓             | ✓         |     |
| ISO 17025             |               |           | ✓   |
| IATF 16949            | ✓             |           |     |

## CYBERSECURITY

Today our business requires information. More and more companies are connected by computer networks. Therefore, there is a transformation in business relationships, in interdependencies between organisations, in the type and nature of activities. Information systems are a formal part of communication systems in today's world, and awareness and interest in digitalisation increased enormously in re-

cent years. Technology underwent a strong development reaching the data virtualisation, the management of real-time animations and the development of cyber-physical systems.

Today we can work remotely and communicate without time and space constraints. Virtual teams, smart working and virtual organisations are a reality and in the last two years, ABS has also significantly

increased its use of virtual structures and state-of-the-art ICT tools.

Digitalisation in our companies is used in many ways. We use digital technologies to mitigate our impact on the environment by using large data sets and the information derived from these sets to, for example, form the basis of life cycle analysis of our products or optimise the use of energy in our production processes.

Information Technology (IT) has a high impact on process innovation, and with the rise of Industry 4.0, supported by digitalisation, we have taken a strategic view on digitalisation to improve our process innovation capability, because in our DNA we have innovation as a source of competitive advantage.

ABS's IT structure began a process of consolidating management skills, technical governance by introducing increasingly standardised and efficient processes to support ABS's innovation and evolution.

Therefore, information security and protection measures were adopted, first at the Cagnacco site and then extended to the European sales offices, as well as to the Sisak plant in Croatia, with the aim of introducing a single operational model for security, design and systems management, including European GDPR regulations and the Group Data Protection Officer (DPO).

ACM is only partially included in this process due to its nature: it is a research and development centre of excellence and therefore it is strategic that it maintains its independence and impartiality in the market.

Measures and policies increased the protection of employees' digital identities (known as system users) and access to systems, as well as strengthened protection against external attacks and the latest threats to data and system security, firstly by adopting the most advanced defence technology solutions and secondly by introducing an internal

document and regulatory basis in cooperation with the Internal Audit office by building a continuously enriching Information Security Management System (ISMS) framework.

In 2021, the parent company decided to start, initially at the Cagnacco site, a project to adopt a Security and Network Operation Centre service that oversees all IT systems and services, introducing predictive and preventive solutions and methods into the data and systems protection model, extending the current predominantly reactive model.

**All these measures have an indispensable focus: people.**

We know that the people of ABS SpA are the first and most important system of protection against cyber security threats, which is why we believe that training on these issues has a double benefit, protecting our organisation on the one hand and protecting the privacy of our employees on the other.

For this reason, we launched a Cyber Security Awareness campaign in 2021 through a smart and innovative service that builds a customised process based on IT and cyber security skills that are periodically reassessed through short tests.

The programme for 2021 involved more than 220 people who were provided with seven training courses aimed at increasing awareness of the risks posed by email attachments and links, Phishing and GDPR.





# OUR APPROACH TO RISK

## BUSINESS CONTINUITY

The need for certification in accordance with ISO 22301 - Security and Resilience - Business Continuity Management Systems - arose internally, in the face of several adverse situations that have occurred in recent financial years (an example above all, the Covid-19 pandemic emergency) and are still looming on the horizon in an increasingly uncertain international context.

One of the factors of uncertainty is climate change. Management from a resilience perspective leads to considering adaptation, i.e. making changes in response to the expected effects of climate change in order to minimise threats or exploit opportunities. The climate determines the conditions on which businesses depend. In this specific context, climate

change can be seen as an external factor that affects the organisation directly or through its influence on other external factors.

At present, risk management is extensive but spread among the various management systems, which mainly takes into account ordinary operational risks, or scenarios related to natural events, or physical damage to infrastructures.

In general, in addition to the organisational and methodological push towards predictive maintenance and an integrated approach between operational and management functions (TO DO list), the implementation of a **Business Continuity** Management System (BCSM) developed with a PDCA (Plan-Do-Check-Act) methodology is necessary:

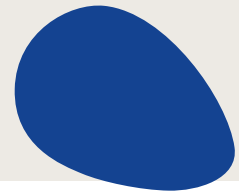


### The expected benefits are:

- Protecting life, property, environment;
- Protecting business reputation and credibility;
- Development of risk management capacity and organisational resilience;
- Making it possible to operate at best during interruptions, reducing costs and maintaining organisational effectiveness;
- Ensuring customer service, or restoration as soon as possible, in cases of adverse events.

The certification is expected to be obtained, initially for ABS SpA alone, within the next two years.

# INNOVATION



Competence consolidated over two centuries of activity and a predisposition for innovation driven by “Innovaction”, the ability to incubate and encourage innovative ideas, give ABS the requisites to be a leading player at the global level in its path towards reaching a top position in the special steels segment.

For ABS, innovation is synonymous with development and growth. Innovating means being at the forefront, regenerating as the main protagonists in known market contexts.

We rely on the strength of ideas and projects to grow our work. **ABS focuses its innovation towards three main areas: products, plants and digital transformation.**

## APPROACH AND POLICY

Constant commitment to research and development led to excellence in both products and production processes. The challenge of innovation drives ABS to foster creativity, ingenuity, passion, with the support of the organizational and managerial capacity of the company and its technology, developed together with its associated companies.

Over the last few years, ABS has applied the principles of Innovation and Digital Transformation for continuous improvement and process efficiency, focusing on the Energy, Maintenance, Quality & Testing, Logistics & Warehouse, Scrap Park, and more generally on the very heart of ABS: Production.

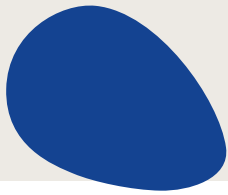
Two key components drive ABS innovation projects:

- the creation of enabling factors to foster internal research, the growth of incremental innovation, but also the interception of potentially disruptive elements;
- the research and development of a network of qualified partners with whom to implement long-term projects, in an Open Innovation model.

To give a single body to these two components, ABS has adopted a general Portfolio Management process to analyse and manage innovation projects in their

complexity: from the development of the project idea, to the search for financial sources, to the tracking of results, to project accounting. The function responsible for managing innovative projects has been included within the sustainability area.

Like the entire sustainability area it is considered highly strategic, and this specific placement will facilitate and optimize the processes of evaluation, cross-contamination and connection of corporate projects, in order to improve our sustainability performance. We have also recently set up a specific function dedicated to the systematic search for sources of subsidized finance that privilege paths of innovation and partnership at an international level.



# INNOVATION

## INNOVATION AND SUSTAINABILITY

Innovative projects carried out by ABS are subject to a sustainability assessment. One of the focuses of innovation in ABS is to achieve a constant and consistent reduction of CO<sub>2</sub> emissions into the atmosphere.

With this objective, we have developed projects related to:

- Reuse of energy waste
- Capture of emitted a CO<sub>2</sub>
- Reuse of scrap
- Reuse of dust (metal extraction)
- Use of products with a lower environmental impact

The strategy of weight reduction is becoming an established trend, driven by sustainability, the need to contain costs while providing high performance, structural efficiency and reduced economic and environmental impacts. There is a huge demand for both modern, lightweight materials and new design concepts.

### INVESTMENTS IN R&D

**7.9 M €**

in the last 3 financial years

### INVESTMENTS IN INNOVATION

**35 M €**

This strategy becomes part of the circular economy and is the solution required for both modern mobility, transport and energy production.

In today's weight-saving strategies, in addition to design, materials are the main component. However, the lightweighting process needs a global re-design, for example by seizing the opportunities in electric cars to reduce secondary masses (powertrain, transmission).

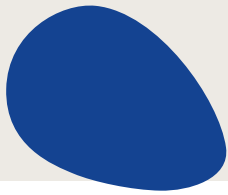
The research into materials and innovation of steel products becomes essential to meet these new challenges and requirements. ABS's commitment in this respect is oriented in several directions:

- ABS developed bainitic steels (ABS BAIN20 and 40) to provide alternative solutions to enable the lightening of components.
- To solve the limitations of steel structure caused by natural cooling, ABS is working with its customers to achieve advanced structures through new cooling strategies.
- ABS is currently working on low-bonded, high-strength materials for powertrains and BEVs of electric vehicles or for the gears of wind turbines.
- In view of the increasing use of hydrogen, ABS is working on the development of steels that are



**Ideas and passion are the ingredients that fuel the continuous innovation of our processes, with the aim of improving safety and sustainability.**





# INNOVATION

less sensitive to embrittlement generated by this energy carrier.

From the point of view of production processes, starting from the Cagnacco site, ABS is equipping itself with intelligent Industry 4.0 systems, capable

of bringing together the different stages of the production process with the aim of minimising waste, optimising timing and reducing energy consumption.

## AUGMENTED REALITY IN ABS

Thanks to the collaboration of colleagues from the Linea Marte testing department and the IT department, an Augmented Reality project was recently implemented with Danieli Automation DIGI&MET, allowing bars to be checked through non-destructive testing without the aid of sprayed paint, increasing the reliability of the inspection and reducing operating times.

In fact, the input is associated with the individual bar processed during the rolling thanks to the digital recording of the areas to be checked.

The operator, wearing SMARTGLASSES, has the possibility of superimposing virtual images on the real context in real time. Thanks to a pointer that allows identification, the QR Code associated with the bar is recognised, which activates the virtual model and makes it possible to highlight the exact position of any defect on the bar.

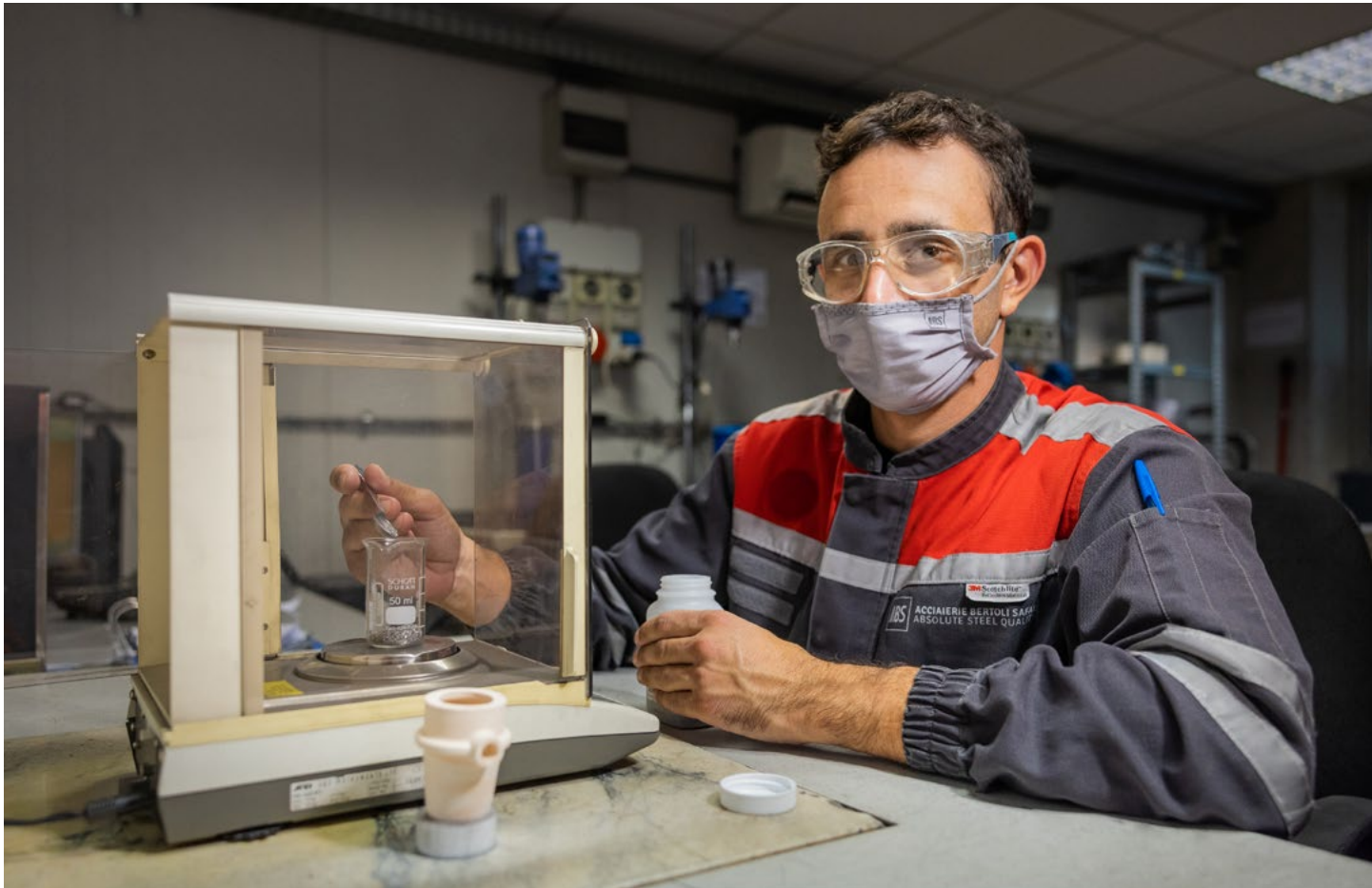


**Ideas and passion are the ingredients that fuel the continuous innovation of our processes, with the aim of improving safety and sustainability.**

Improved efficiency and lower energy consumption were also achieved by increasing the number of pro-

cess parameters tracked and by a more structured use of the data generated. ABS enabled the development of real-time process management and control, predictive and prescriptive maintenance, assisted inspections and checks through the use of new technologies, including Big Data, IoT (Internet of Thing) systems, predicti-





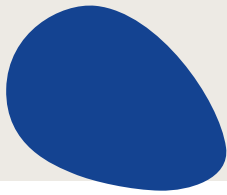
ve models and artificial intelligence systems.

Our commitment has immediate effects in terms of decreasing process-related energy consumption and climate-changing gas emissions related to waste and increased productivity. We hope, in this respect, to see a further decrease in emissions in the long run related to the longer life cycle of the equipment.

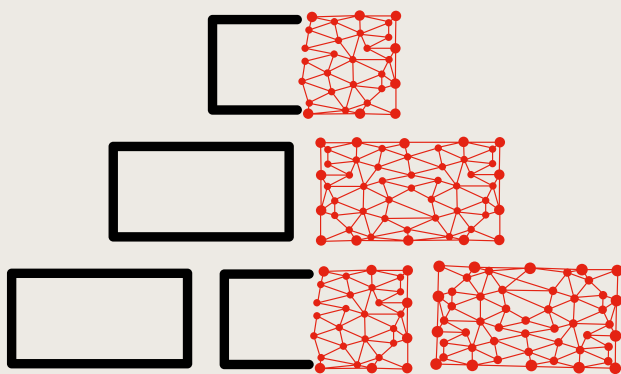
The improvement in safety and the decrease in potential dangers are amplified by the **increase in the robotisation of the plant**, intended as an aid to humans in activities that retain residual risks to human safety. The process, which started some time ago in ABS, and which reaches its current peak in the “no men on the floor” concept applied in the new QWR plant of the Saturn line, will see a constant and sy-

stematic application of the benefits of Industry 4.0

In this perspective, ABS equipped itself with a system called DIP - Danieli Intelligent Plant, a tool that allows the collection of multiple information from the plant and operators during normal operations. Data collection applies “intelligent” algorithms to identify, on the basis of the data collected, the Points Of Interest to be submitted to the operators, enabling them to remotely identify the causes of production and non-production problems, thus increasing their level of security.



# INNOVATION



## THE DIGITAL TWIN

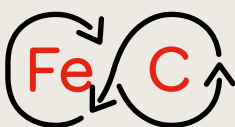
ACM is focused on continuously improving the quality of the products that are part of the ABS offer, mainly by modelling the mechanisms involved from solidification to the final product.

This activity consists of the creation of complex and descriptive digital twins of the products obtained from the various ABS processes. The aim of this activity is to make the production of a good product more efficient already during the first trial and to reduce waste and ABS's footprint on resource consumption.

## CLIMATE FRIENDLY STEEL

Innovation is the key element that can provide longer product life-cycle by increasing strength and durability, and develop increasingly sustainable and environmentally friendly products.

The European Circular Economy Action Plan identifies steel as one of the main products or materials with untapped circularity potential. Steel has, in fact, a great potential to contribute to the definition of a climate-neutral world as it is naturally durable and long-lasting, well suited for recycling, reuse and remanufacturing.



Steel is a material with a very long life cycle, which can be 100% recycled an infinite number of times without losing its characteristi-

cs. In fact, thanks to its properties such as density and magnetism, it can be easily separated at the end of its life, making it the most recycled material in the world.

Steel produced by electric arc furnace (EAF) is more environmentally friendly than steel produced with other technologies. Its production is also more flexible and better able to respond to fluctuations in demand. The prerequisites for making this production even more sustainable include the increasing use of energy from renewable sources and a sufficient supply of high-quality steel scrap.

Further benefits in terms of decarbonisation will be related to the use of alternative carbon-based energy sources in the production process.

ABS is a player in the high sustainability steel scenario since increasing the share of EAF-based steel production will play a key role in the decarbonisation of the steel industry.

# GOVERNANCE



Governance is defined by the Board of Directors, which verifies the adequacy of the organisational, administrative and accounting structure, with special reference to the internal control and risk management system, and defines the set of planning, management and control rules and methods necessary for the operation of ABS.

The ordinary and extraordinary management of the company is the exclusive responsibility of the Board of Directors, the main body of the governance system, which is made up of 8 members, from which the Chairman, the Chief Executive Officers with operational powers and the Managing Directors are elected. The Board of Directors meets at least twice a year, or when required by events of an exceptional nature or by the nature of the decisions to be taken.

The members of the Board of Directors are chosen by the Shareholders' Meeting and it is the Board of Directors that develops the economic, social and environmental strategies of the company, supported by external opinions and specialist advice as required.

## Board of Directors

|                          |                         |
|--------------------------|-------------------------|
| Carla de Colle           | Chairman                |
| Camilla Benedetti        | Deputy Chairman         |
| Anna Mareschi Danieli    | Deputy Chairman         |
| Stefano Scolari          | Chief Executive Officer |
| Giuseppe Flaborea        | Director                |
| Giacomo Mareschi Danieli | Director                |
| Gianpietro Benedetti     | Director                |
| Giacomo Disarò           | Director                |

well as compliance with the principles of proper administration in the performance of the Company's activities. The Board of Statutory Auditors monitors the financial reporting process, as well as the adequacy of the Company's organisational structure, internal control system and administrative/accounting system, and the reliability of the latter in providing a fair representation of the operations. Finally, the Board of Statutory Auditors supervises the legal audit of the annual and consolidated accounts, as well as the independence of the legal auditing body.

Diversity is an important element for ABS growth; in fact, within the Board of Directors, 63% of the members, 5, are between 30 and 50 years of age, while 38%, 3, are over 50. Among the board members, 3 members are women and 5 are men. Whereas in 2021-2022, the Board of Statutory Auditors includes 5 members, of which 4 are men (80%) and 1 is a woman (20%), all of whom are in the 50+ age bracket (100%).

## Board of Statutory Auditors

|                        |                   |
|------------------------|-------------------|
| Giuseppe Alessio Verni | Chairman          |
| Giuseppe Bertoli       | Standing Auditor  |
| Laura Piusi            | Standing Auditor  |
| Edgardo Fattor         | Alternate Auditor |
| Alessandro Gambi       | Alternate Auditor |

The Board of Statutory Auditors monitors compliance with the law and the Articles of Association, as



# GOVERNANCE

## SUSTAINABILITY AND INNOVATION MANAGEMENT

ABS SpA has a Sustainability & Innovation Manager appointed by the BoD, who has the task of managing and planning the activities of the Environment, Energy, Innovation functions and the Global Blue plant, i.e., the plant in charge of transforming steel mill slag into industrial aggregates called Ecogravel™.

Moreover, the Sustainability & Innovation Manager is responsible for evaluating and interpreting changes in the external environment on sustainability issues to search for policies and initiatives in order to develop new lines of strategy for ABS.

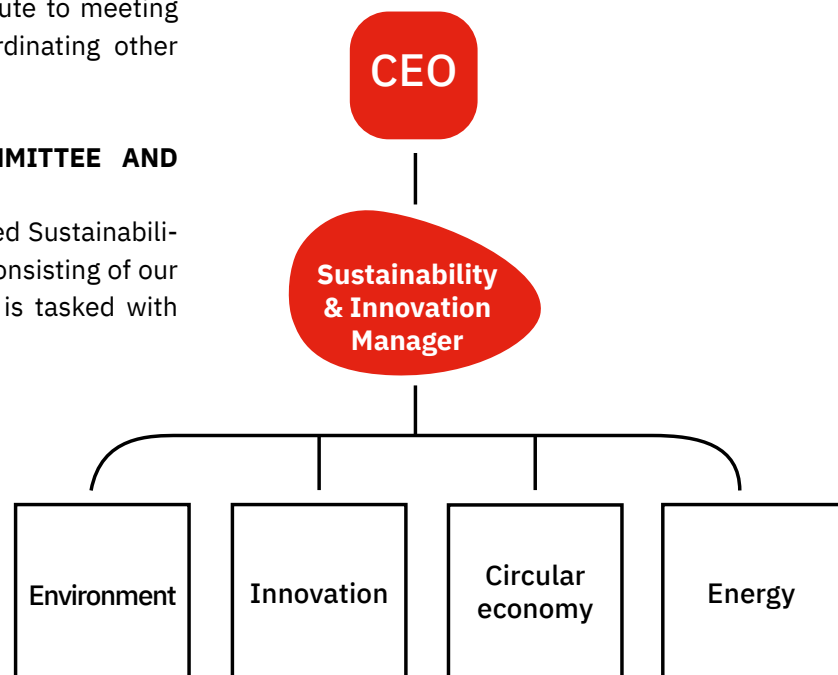
The Sustainability & Innovation Manager is also responsible for identifying and managing incentives to support these initiatives, setting sustainability performance targets and monitoring the progress of transversal projects that will contribute to meeting ESG commitments, as well as coordinating other functions on sustainability issues.

### SUSTAINABILITY STEERING COMMITTEE AND OPERATIONAL COMMITTEES

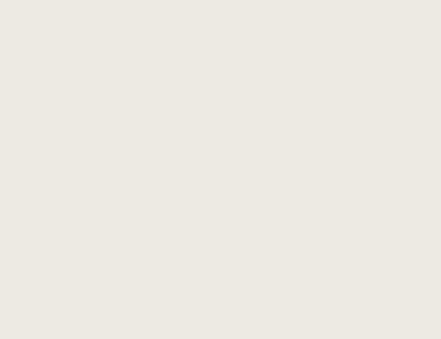
As from 2021, there is a newly formed Sustainability Steering Committee in ABS SpA, consisting of our CEO and frontline managers, which is tasked with

supporting ABS in its sustainability process and bringing different perspectives to the strategy definition. This committee joins our operational committees, internal bodies for monitoring decisions and identifying actions for the support of short-term results by the functions involved in the production process.

Our governance structure helps us ensure that sustainability is controlled at the highest levels of our organisation and integrated into our daily operations.









# ETHICS

ABS holds ethical values in high regard as the guiding principles of its actions.

Over the years, these principles have been incorporated and tran-

slated into guiding values for all employees to provide direction when faced with discretionary decisions or ethical dilemmas.

## CODE OF ETHICS

The ABS Code of Ethics is a freely downloadable and searchable public document, applied to all aspects of business conduct, from strategy planning by the Board of Directors to the way employees and suppliers are treated, from sales techniques to accounting practices.

The Code of Ethics identifies and outlines the principles held by ABS, on which ABS bases its actions as an active and responsible member of the community.

These principles are summarized in:

- Legality
- Transparency, fairness and loyalty
- Good faith
- Non-discrimination and equal opportunities
- Diligence
- Centrality and development of Human Resources
- Respect for and protection of the environment
- Protection of health and safety in the workplace
- Quality of services offered and customer satisfaction
- Protection of shareholders, investors and creditors
- Reputation
- Protection of privacy
- Conflict of interest
- Protection of intellectual property
- Duty of confidentiality
- IT security

The ABS Code of Ethics is also a business management tool. It is an important tool to promote fundamental human rights, labour rights, relations with the local area. It sets out the standards of conduct for everyone who works in the company. The ABS Code of Ethics is part of our corporate culture and represents our will to move towards the creation of the shared good.

To all intents and purposes, this document is also a wide-ranging personnel management tool used not only to evaluate workers in the event of disciplinary disputes, but also as a rewarding tool when evaluating performance.

All new employees are provided with a copy of the Code of Ethics and all are trained in its contents. These activities are included in the training activities related to the management systems of the company.

### RESPECT FOR HUMAN RIGHTS

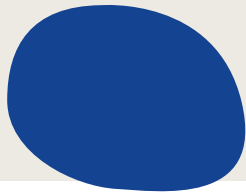
Human rights are inalienable rights held by all persons. Respect for these rights is a fundamental element of the proper and responsible management of ABS activities.

In full compliance with the UN Universal Declaration of Human Rights and Italian law, all ABS SpA employees are guaranteed the right to freedom of association and collective bargaining. In ABS, 87% of the workforce was covered by collective bargaining

**The Code of Ethics identifies and outlines the principles held by ABS, on which ABS bases its actions**







# ETHICS

agreements. ABS endeavours to avoid discriminatory behaviour, and therefore does not discriminate in any way, be it on the basis of gender, sexual orientation, ethnicity, language, religion, political opinions, personal conditions, and/or social conditions. Any form of forced, compulsory, or child labour practices is also prohibited.

## **FIGHT AGAINST ACTIVE AND PASSIVE CORRUPTION**

ABS considers that ensuring fairness and transparency in the conduct of its business and corporate activities is a priority and is necessary to protect the company itself and its shareholders.

As from 2011, to protect the company against active and passive corruption, the Board of Directors of ABS SpA has equipped its Italian premises with an organisational model in line with the obligations set out by Legislative Decree 231/2001, which provide for a Su-

pervisory Body (SB) to receive reports of any violations. The Supervisory Body meets once a month and its activities are brought to the attention of the Board of Directors for its assessment and approval, as well as of the Board of Statutory Auditors.

The knowledge of the actions regulated by the organisational model and of the behaviours it requires are the subject of specific information and training activities for employees and suppliers.

The Code of Ethics also establishes precise rules for managing contacts with the Public Administration. It defines rules of conduct and for the management of contributions, subsidies or funding obtained from the State or other public body or from the European Communities. It prohibits the direct or indirect offer of gifts and benefits (money, objects, services, favours or other benefits), as well as inducing Public Officials/Public Servants to use their influence on other Public Servants.

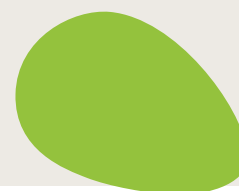
## **VIOLATIONS**

No violations were identified in the current year for what regards active and passive corruption, anti-competitive behaviour, discrimination and non-compliance with laws and regulations of a socio-economic nature. Therefore, no actions taken by the company in order to punish such behaviour are to be reported.





# STAKEHOLDER, MATERIAL TOPICS AND SDGs



The classification of ABS stakeholders is the result of an in-depth joint analysis between our Top Management and our Sustainability Manager, which led to the final identification of the following categories: employees, customers, shareholders, suppliers, regulatory and government bodies, research institutes, environmental protection and communities. Each category was further analysed and detailed in order to identify all stakeholders with a connection to the ABS business. In order to ensure that sustainability issues would inform more and more our company's actions and identify the most important players to the creation of value, we carried out a prioritization process, constructively engaging the managers of our "Sustainability Project", experts on the subject, and ABS top management. Following the discussion, prioritisation was defined directly by the company's Board of Directors.

In ABS, the process of bringing to light material topics according to the ABS-Stakeholder dual vision is an activity that has been carried out since 2016 and has been developed by a progressive inclusion of different types of stakeholders. Currently, customers, suppliers, employees, regulatory and government bodies, research institutes and new generations have been engaged in the definition of material topics, mainly through surveys. This process was carried out by ABS SpA and the analysis was considered valid for the entire Steelmaking Division.

ABS's view of the most important topics in terms of impact and value creation was revised during the current year and the revised version of the materiality matrix was approved by the Board of Directors on 07/27/2022.

The strategic reinterpretation of the sustainability of ABS's business is defined by the topics that

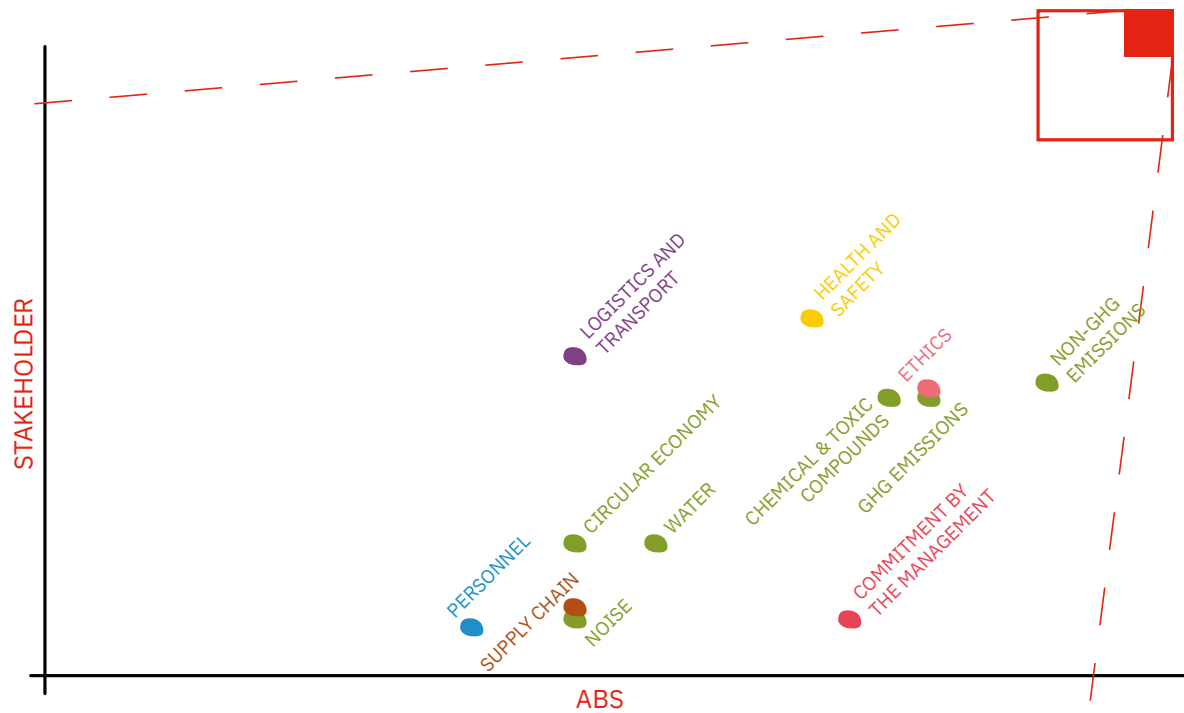
were found to be material in the integrated vision as expressed in aggregate form by the ABS board and the stakeholders, and was used to provide direction in the definition of this report.

The material topics are:

- Energy and GHG (greenhouse gas) emissions
- Other emissions into the atmosphere
- Ethical management of the business
- Chemical & toxic compounds
- Development of practices to ensure full compliance with health and safety at work
- Logistics and transport
- Management of water resources: withdrawals and discharges
- Circular economy actions and policies aimed at reducing the impact of the acquisition of raw materials and develop a virtuous waste management model, adopting, where possible, recovery and recycling policies instead of disposal
- Noise & vibration
- Commitment of the management towards the adoption of sustainability policies
- Sustainability-oriented supply chain management
- Actions towards personnel regarding remuneration policies, development of growth paths for skills and respect for human rights.












# STAKEHOLDER, MATERIAL TOPICS AND SDGs



During 2022, we deepened our analysis of material topics by assessing, through the monitored performance indicators, KPIs, the impact generated by these topics towards the 17 Goals of the 2030 Agenda for Sustainable Development, defined by the United Nations, in order to share the commitment to ensure a better present and future for planet Earth and the people living on it.



| Material topics   |  | SDG sub-goals   | GRI AND CUSTOM KPI  |
|---|--|---|---|
| Energy and GHG (greenhouse gas) emissions   |   | 7.2: Increase substantially the share of renewable energy in the global energy mix by 2030<br>7.3: Double the global rate of improvement in energy efficiency by 2030   | 302<br>305  |
| Other emissions into the atmosphere<br>Chemical & toxic compounds<br>Logistics and transport<br>Noise & vibration   |   | 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment | 305<br>Environmental investments;<br>% Transport by train |
| Ethical management of the business<br>Commitment of the management towards the adoption of sustainability policies  |    | 10.2: By 2030, empower and promote the social, economic and political inclusion of all irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status  | 102-16  |
| Development of practices to ensure full compliance with health and safety at work   |   | 8.8: protect labour rights and promote safe and secure working environments of all workers, including migrant workers, particularly women migrants, and those in precarious employment  | 403   |
| Management of water resources: with-drawals and discharges  |   | 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements  | 303   |
| Circular economy actions and policies aimed at reducing the impact of the acquisition of raw materials and develop a virtuous waste management model, adopting, where possible, recovery and recycling policies instead of disposal |   | 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse  | 301   |
| Sustainability-oriented supply chain management   |   | 12.6: encourage companies, especially large and trans-national companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle   | 102-8<br>204  |
| Actions towards personnel regarding remuneration policies, development of growth paths for skills and respect for human rights  | <br> | 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship<br><br>5.1: End all forms of discrimination against women and girls everywhere  | 404   |



# STAKEHOLDER, MATERIAL TOPICS AND SDGs

## VALUE GENERATED AND DISTRIBUTED TO STAKEHOLDERS

### Economic value directly generated and distributed 06/30/2022

|   |               |
|---|---------------|
| A. Directly generated economic value                | 1,688.58      |
| B. Distributed economic value                       | 1,512.72      |
| <b>(A-B) Characteristic retained economic value</b> | <b>175.86</b> |

(million euro)

### Analysis of distributed economic value 06/30/2022

|   |                 |
|---|-----------------|
| Operating costs                           | 1,393.80        |
| Remuneration of Personnel                 | 83.35           |
| Remuneration of the Public Administration | 32.11           |
| Investments in the community              | 0.06            |
| Remuneration to lenders                   | 3.41            |
| <b>Total</b>                              | <b>1,512.72</b> |

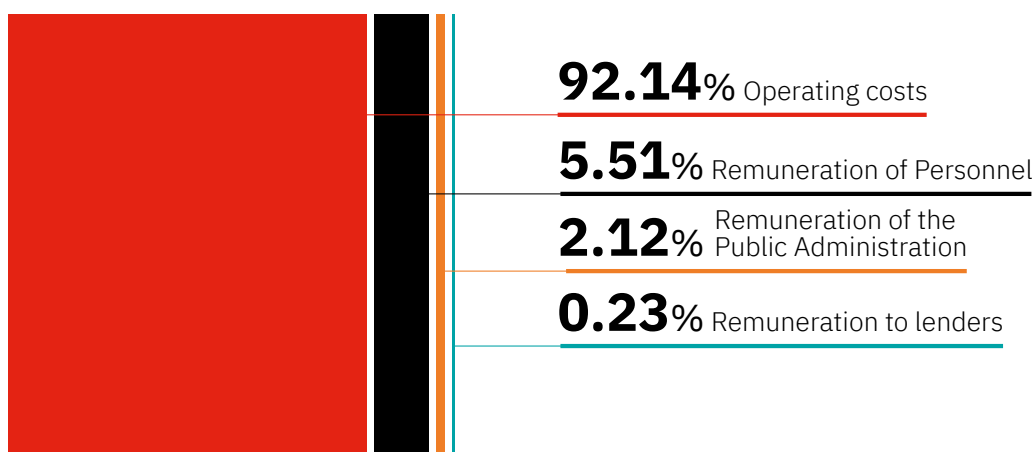
(million euro)

ABS contributes to the economic growth of the social and environmental context in which it operates by generating shared value. In the 2021/2022 financial year, the Directly Generated Economic Value amounted to 1,688.58 million euro.

Almost 90% of the company's wealth generated in the 2021/2022 financial year, amounting to approx. 1,512.72 million euro, was distributed to its stakeholders. Suppliers and employees are among the stakeholders who benefit most from the value produced by ABS.

With regard to the main stakeholders, the economic value distributed was as follows:

- Personnel (including term contractors and Board Directors) 5.51% - through direct remuneration consisting of salaries and severance payments and indirect remuneration consisting of social security contributions and costs for personnel-related services;
- Suppliers 92.14% - are identified in the operating costs that mainly represent payments to suppliers of goods and services;
- Public Administration 2.12% - through the payment of direct and indirect taxes;
- Lenders 0.23% - through the payment of financial charges.





ABS contributes to the economic growth of the social and environmental context in which it operates by generating shared value.





# ENVIRONMENT

In ABS, there are production companies that generate important effects on the environment, both positive and negative. Undoubtedly, one of the main impact-generating activities related to the production of special steel is associated with the high consumption of electricity and associated greenhouse gas emissions.

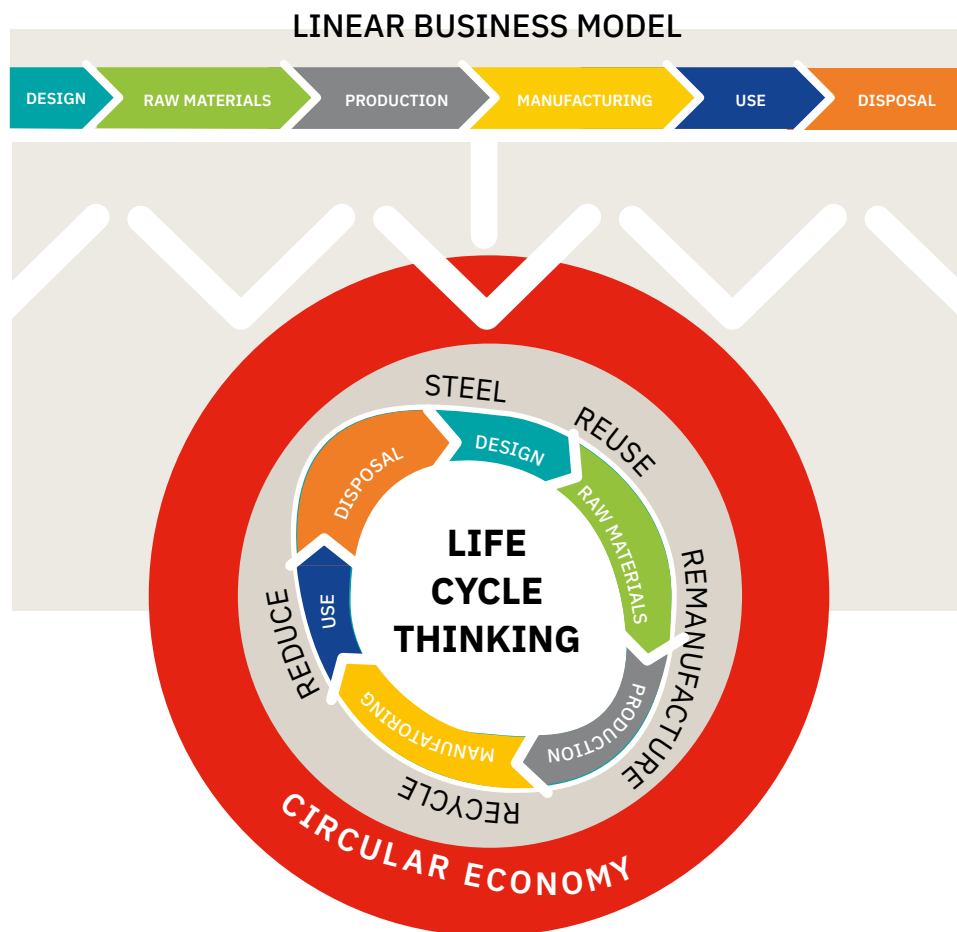
On the other hand, special steel does not in itself cause a depletion of natural resources: the circular and virtuous production process of steel mainly involves the use of ferrous scrap, thus giving new life to a material that could otherwise be considered waste.

“Preserving value by avoiding waste” - this phrase could sum up ABS’s pragmatic approach to the circular economy. What would be normally considered waste is a high-quality resource for ABS. Thanks to the scrap – the main input of the process – steel is produced. Steel is recyclable countless times and has a closed-loop recycling. Scrap steel can be easily recovered and sorted magnetically, and since most of the impurities in steel can be removed by oxidation, it can be recycled again and again in a virtually infinite cycle, defining an important potential for reducing environmental impacts from an LCA perspective. This business model and the state-of-the-art pro-

duction technology of ABS allow steel to be produced with a reduced environmental impact, unlike full-cycle production process that starts with the extraction of ore and coal as raw materials.

All ABS production sites have an authorisation issued by the competent authority in their respective countries, which defines the monitoring plan for air and water emissions, the measurement methods to be adopted, the frequency and evaluation of results. Continuous investments in new technologies and innovative solutions follow ABS’s strategy of reducing its environmental footprint and specifically the progressive reduction of impacts on air, water and soil according to a multi-year action plan aimed at achieving long-term virtuous objectives.

These goals are aligned with the European Zero





## “Preserving value by avoiding waste” ... ABS’s pragmatic approach to the circular economy.

pollution vision for 2050, which aims to reduce air, water and soil pollution to levels no longer considered harmful to health and natural ecosystems, respecting planetary boundaries<sup>11</sup>, and thus creating an environment free of toxic substances.

Consistent with this vision, ABS invested around 12 million euro in environmental impact topics in the period from 2016 to 2021 and in 2021 started specific projects, which will be developed in the next five years, for a further 93 million euro, within a plan of more than 750 million euro, specifically focused on the circular economy, energy and resource saving and emission reduction (for more details see “Vision Digital Green” in the section “SUSTAINABILITY TARGETS”).



<sup>11</sup>. The Planetary Boundaries concept presents a set of nine critical areas to be regularly monitored by humanity and that require political and technical interventions to permit sustainable and respectful development. “Planetary boundaries: Guiding human development on a changing planet” 2015, Science, 1259855, 347 6223, doi:10.1126/science.1259855



# ENVIRONMENT

## RAW MATERIALS AND CIRCULAR ECONOMY

ABS produces special steel from ferrous scrap. Ferrous scrap, an asset that can be recycled an infinite number of times and that constitutes the raw material from which the production process begins in a circular economy perspective.

The operational methods for managing scrap metal that, according to current regulations, is classified as

waste, are described in detail in the environmental management manual prepared by ABS in line with the defined requirements of the ISO 14001 certification scheme. More specifically, the manual defines the steps of acceptance, radiometric and documentary verification of the material, checks on the incoming scrap metal, and possible rejection of the load in case of non-conformity.

| Materials used by weight or volume |                   |                  |                   |
|------------------------------------|-------------------|------------------|-------------------|
|                                    | Not recycled      | Recycled         | Total             |
| <b>2022</b>                        |                   |                  |                   |
| <b>Cubic metres (m³)</b>           | <b>69,730,918</b> | <b>63</b>        | <b>69,730,981</b> |
| Fluid gases                        | 38,457            |                  | 38,457            |
| Noble gases                        | 69,692,450        | 63               | 69,692,513        |
| Raw materials                      | 11                |                  | 11                |
| <b>Tonnes (t)</b>                  | <b>226,270</b>    | <b>1,632,737</b> | <b>1,859,007</b>  |
| Fluid gases                        | 80                |                  | 80                |
| Packaging                          | 719               |                  | 719               |
| Ancillary materials                | 101,976           |                  | 101,976           |
| Raw materials                      | 112,898           | 1,632,737        | 1,745,635         |
| Refractory materials               | 10,597            |                  | 10,597            |
| <b>2021</b>                        |                   |                  |                   |
| <b>Cubic metres (m³)</b>           | <b>86,240,724</b> | <b>60</b>        | <b>86,240,784</b> |
| Fluid gases                        | 19,726            |                  | 19,726            |
| Noble gases                        | 86,220,988        | 60               | 86,221,048        |
| Raw materials                      | 10                |                  | 10                |
| <b>Tonnes (t)</b>                  | <b>185,037</b>    | <b>1,526,828</b> | <b>1,711,865</b>  |
| Fluid gases                        | 95                |                  | 95                |
| Packaging                          | 579               |                  | 579               |
| Ancillary materials                | 89,912            |                  | 89,912            |
| Raw materials                      | 83,773            | 1,526,828        | 1,610,601         |
| Refractory materials               | 10,678            |                  | 10,678            |



Noble gasses and fluids used in the production process and/or as ancillary materials, given their physical form, are quantifiable almost exclusively by volume.

**In 2022, approximately 94% of the raw materials used, in weight, are of recycled origin;**

these include, in addition to ferrous scrap, a portion of the cast iron used.

| Raw materials of recycled origin (t) |                |                  |                  |
|--------------------------------------|----------------|------------------|------------------|
|                                      | Not recycled   | Recycled         | Total            |
| <b>2022</b>                          | <b>112,898</b> | <b>1,632,737</b> | <b>1,745,635</b> |
| Scrap steel                          |                | 1,536,851        | 1,536,851        |
| Electrodes                           | 2,848          |                  | 2,848            |
| Ferroalloys                          | 41,206         |                  | 41,206           |
| Cast Iron                            | 42,523         | 95,886           | 138,409          |
| Consumables                          | 828            |                  | 828              |
| Other materials                      | 25,493         |                  | 25,493           |
| <b>2021</b>                          | <b>83,773</b>  | <b>1,526,828</b> | <b>1,610,601</b> |
| Scrap steel                          |                | 1,444,594        | 1,444,594        |
| Electrodes                           | 2,867          |                  | 2,867            |
| Ferroalloys                          | 38,850         |                  | 38,850           |
| Cast Iron                            | 15,093         | 82,234           | 97,327           |
| Consumables                          | 781            |                  | 781              |
| Other materials                      | 26,182         |                  | 26,182           |





# ENVIRONMENT

## SCRAP YARD & METAL MANAGEMENT

ABS, which has always been attentive to growth opportunities, invested in a major improvement project for the automatic management of the Scrap Yard.

The project achieved important benefits at different stages of the process:

- Inbound scrap reception and material classification
- Tracking scrap entering bays and baskets
- Material Inventory
- Integration of charging and melting processes with a view to efficiency gains

The classification of the scrap is based on the processing of images acquired by means of hand-held terminals (smartphones) carried by dedicated personnel. The classification learning process involved the use of Machine Learning techniques that guided the learning of the System, based on the loading of thousands of images and their annotations; subsequently processed by powerful neural networks using mathematical models to allow maximum control of all incoming scrap.

The system also makes it possible to optimise the management of complaints to suppliers: photos

and supporting documentation are systematically captured for each load.

The fact that the system is a support for human decision-making (who is therefore at the centre of the process although aided and enabled by technology) is demonstrated by the fact that the operators can act on the post-processing of the results and have the possibility of control and regulation: the classifiers can at any time accept what the system proposes or propose an alternative classification.

The system is also integrated with a railway portal that collects data and images of incoming wagons and records them directly, enabling the immediate start of the subsequent tracking phases within the Scrap Park.

The safety implications for operators are very important: the system allows the presence of operators in the field to be reduced to a minimum.

The analysis of data and the establishment of a consistent Data Warehouse is another important step towards improving the operational work of personnel: all the information obtained is transferred to the process control system of the electric furnace to calculate the best melting condition, facilitating process engineering in the interpretation and calibration of the tracked parameters, in order to achieve significant gains in both efficiency and energy savings.

Finally, the plant is equipped with 3D laser scanner systems that allow the generation of a 3D Map of the Scrap Yard, so that stocks can be better controlled and the logistics management of the material can be made more effective thanks to the integrated tracking system.



## ENERGY

Never before has the importance of energy consumption been the focus of improvement strategies as in this financial year. As already pointed out, ABS extended the Energy Management System certified according to the international standard ISO 50001, the fundamental values of which are included in the company's integrated policy. The certification-related improvement cycle involves the preparation of action plans.

The driver for the optimisation of efforts lies in the continuous collaboration of the energy/sustainability, technical and manufacturing areas, which work together on several fronts in the plants to search for savings and propose solutions. This synergy gives rise to projects included in the action plans, which represent real industrial plans conceived in the medium and long term, with the aim of giving substance to a far-sighted vision aimed at reducing the product's environmental impact. Each project in the action plans is characterised by defined targets to complete the predefined strategy: in the specific case of energy savings, the target set for the last financial year of 4,000 tonnes of oil equivalent (TOE) was achieved and surpassed.

### ENERGY MANAGEMENT

At ABS Cargnacco, energy performance of production plants is monitored on a monthly basis and periodically reviewed together with the production and maintenance functions to identify and reconcile deviations and undertake the most effective corrective measures.

The continuous improvement of the metering system is fundamental: to this end, a system of meters (700 in the Cargnacco plants alone) was implemented to monitor the consumption of electricity and methane

the company has earmarked more than  
**1.5 Million €**  
 for energy efficiency projects in  
 financial year 2021/22.

on a continuous basis.

ABS is also implementing an innovative IoT platform for real time consumption monitoring and automatic reporting, with a view to an increasingly extensive use of artificial intelligence for better management of the production process.

There are many ongoing projects aimed at improving energy efficiency. On the one hand, starting with projects improving energy efficiency of lighting consumption, one can mention the important project nearing completion that envisages the replacement of more than 2,500 metal halide and sodium lamps with LED lamps in the Udine factory. The measures completed so far in this specific area resulted in electricity savings of approximately 1,411,000 kWh/year.

On the other hand, since 2018, a process improving the efficiency of melting electricity has been underway at the Udine site. Many activities related to this macro-area included, among other things, the installation of technology packages (supplied by group companies) called "Q" on electric furnaces and the replacement of Danarc furnace reactors. These projects resulted in savings of 5,850,000 kWh/year and 1,156,814 kWh/year, respectively.





# ENVIRONMENT

There are also ongoing projects to improve the efficiency of the GAS networks (Compressed Air, Oxygen, Methane), which will lead to savings of 1,200 MWh/year.

The ongoing projects focused on improving energy performance related to the use of natural gas are equally strategic. Revamping and improving the efficiency of the combustion systems. The project consists of the gradual implementation of the best technologies available on the market (BAT) on the plant's most gas-hungry systems. The ambitious goal of this multi-year plan is to reduce the plant's gas consumption by 10%.

Over the past five financial years, several efficiency improvements have been carried out at the Italian site in Cargnacco; those of the last financial year include the revamping of the ladle dryers and the revamping with regenerative systems of the forging furnaces. Specifically, with the installation of regenerative combustion systems, the revamping of most of the forging furnaces has been completed, with the last one scheduled for the next financial year. Thanks to these interventions, savings of methane gas of

50% and electricity of 50% could be achieved.

Analysing them in terms of environmental sustainability, projects that have effects in terms of recovery and utilisation of waste heat from production processes are also very important. During spring 2021, a company-wide district heating network was put into service, powered by the heat recovered from the fumes of the walking beam heating furnace of the Mars Rolling Mill, and conveyed to the heating plants of the canteen buildings, locker rooms, offices, and other industrial users. The network has an extension of 400 meters and can convey more than 1 thermal megawatt. The entire system is part of a multi-year project that includes, in the near future, the connection of an absorption chiller to the heat recovery system in order to provide cooling for the electrical stations of the plant.

During the year, a pilot project, called Thermacomp, started for energy recovery with compressed air production. The Thermacomp process uses the heat in the furnace fumes to power a turbo-compressor to produce clean compressed air for use in the steelworks. The waste from this process in the form of





high-temperature hot air is also recovered and sent to the burners of the reheating furnace to reduce fuel consumption. Once the fumes have given up their heat and have been filtered, they can go to a micro-algae production plant.

In France, all buildings larger than 1000 sqm are obliged by law to reduce energy consumption by -40% by 2030, -50% in 2040 and -60% in 2050. While not falling under this obligation, ACM has nevertheless decided to tackle the process of complying with these measures by implementing an energy consumption monitoring and management system and defining a multi-year action plan to achieve reduction targets. In this logic, ACM is carrying out its plan to replace lighting sources with LED lamps, which will be completed in the next financial year.

During the 2021-22 financial year, SISAK obtained ISO 50001 certification by placing the replacement of lamps with LED devices, the introduction of high-efficiency electric motors, the improvement of thermal efficiency in production processes with process heat recovery, the introduction of more efficient cooling systems, the revamping of electrical installations and the maintenance of the compressed air distribution system at the centre of its efficiency plan.

## SISAK Q-ONE

The Q-ONE is also called a digital melter, allowing a significant reduction in power and energy consumption. The technology was installed both on new plants and by upgrading existing ones.

Q-ONE is the innovative solution that uses the latest power electronics technology to manage irregular loads more flexibly and reliably.

Q-ONE technology replaces classic oven transformers, enabling improved efficiency, reliability, reduced power consumption, flicker and CO<sub>2</sub> emissions.

Q-ONE also enables high process optimisations, increased oven productivity and reduced electrode consumption.

At SISAK, we expect, in the medium term, an increase in productivity of 24% and electrode savings per tonne produced of over 18% and energy savings per tonne produced of around 8%.

In terms of energy efficiency and emissions, the Q-ONE will ensure:



**energy savings** of approximately 11,250 MWh/year



**GHG Scope 2 emissions** avoided of at least 4000 tCO<sub>2</sub>/year



**GHG Scope 1 emissions** avoided of 1000 tCO<sub>2</sub>/year



# ENVIRONMENT

## ENERGY PERFORMANCE

| Energy consumption in giga joule (GJ) by fuel type <sup>12</sup> |                  |                  |
|--|------------------|------------------|
|  | 2022             | 2021             |
| LPG (GJ)   | 3,715            | 4,497            |
| Methane gas (GJ)   | 2,948,118        | 2,594,581        |
| Gas oil (GJ)   | 9,306            | 7,843            |
| Petrol and other fuels (GJ) <sup>13</sup>                        | 4,672            | 11,023           |
| Industrial coal (GJ)   | 687,977          | 720,435          |
| Electricity purchased from the grid (GJ)                         | 4,009,997        | 3,617,844        |
| <b>Total electricity produced and consumed internally (GJ)</b>   | -                | -                |
| <b>Total energy consumption within the organization (GJ)</b>     | <b>7,663,785</b> | <b>6,956,223</b> |
| <b>of which from renewable sources</b>                           | -                | -                |

In the last 2 financial years, there have been major increases in terms of production that have resulted in an increase in absolute energy consumption. SI-SAK's plants resumed operations after the 2020 earthquake forced a halt in production. ABS Cargnacco started new secondary metallurgy plants and increased the production volumes of the QWR plant.

The energy intensity<sup>14</sup> figure was 5.23 GJ/t. The figure shows a very good performance mainly due to process efficiency projects that have kept consumption stable, despite the significant increase in production and the commissioning of new energy-intensive plants.



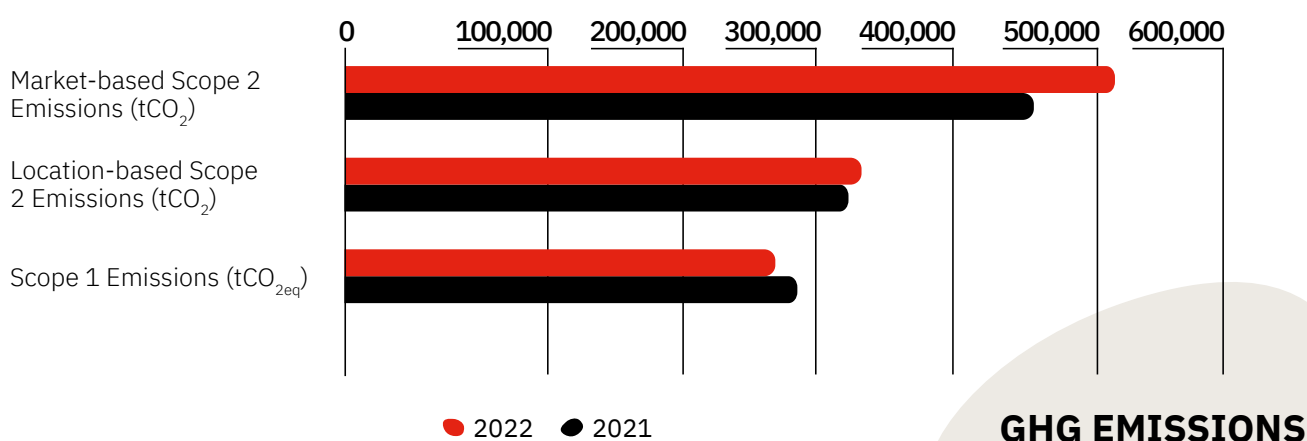
<sup>12</sup>. The following conversion factors used are taken from the document "UK Government – GHG Conversion Factors for Company Reporting" 2021 and 2022:

GPL: 45.94 GJ/t for 2022 and 2021 • Methane gas: 35.88 GJ/m<sup>3</sup> for 2022 and 36.02 GJ/m<sup>3</sup> for 2021 • Gas oil: 42.60 GJ/t for 2022 and 42.47 GJ/t for 2021 • Petrol: 43.62 GJ/t for 2022 and 43.8 GJ/t for 2021 • Coal: 26.742 GJ/t for 2022 and 25.405 GJ/t for 2021 • Electricity: 0.0036 GJ/kWh (Constant)

<sup>13</sup>. The consumption figure for company cars has been estimated using criteria capable of providing as accurate and exhaustive a representation as possible.

<sup>14</sup>. Figure calculated from the amount of solid material (crude steel) produced during operation.

## CLIMATE



Reducing the environmental impact of industrial products is a priority goal on European agendas and will become increasingly central in the coming years.

For this reason, ABS has for some time now been on a virtuous path towards decarbonisation, not only to comply with legal requirements but, above all, to cre-

ate added value for its product.

With regard to direct emissions, since the plants are subject to the Emission Trading System (ETS) mechanism, an extensive monitoring system has been implemented for the consumption of raw materials and other fuels used in the plants.

**ABS SpA is a partner of World Steel Climate Action and has been actively participating in the action for 15 years, aware that a virtuous path towards decarbonisation of the industry is essential.**



In line with what has been described above, electricity consumption linked to indirect emissions is also monitored in detail. In this context, investments in energy efficiency, as described above, are also evaluated for their direct impact on reducing emissions.

In addition to monitoring, the implementation of automated and predictive systems for lean process management plays a central role to further rationalise the use of raw materials and optimize the chemical reactions that take place in the smelting process.



# ENVIRONMENT

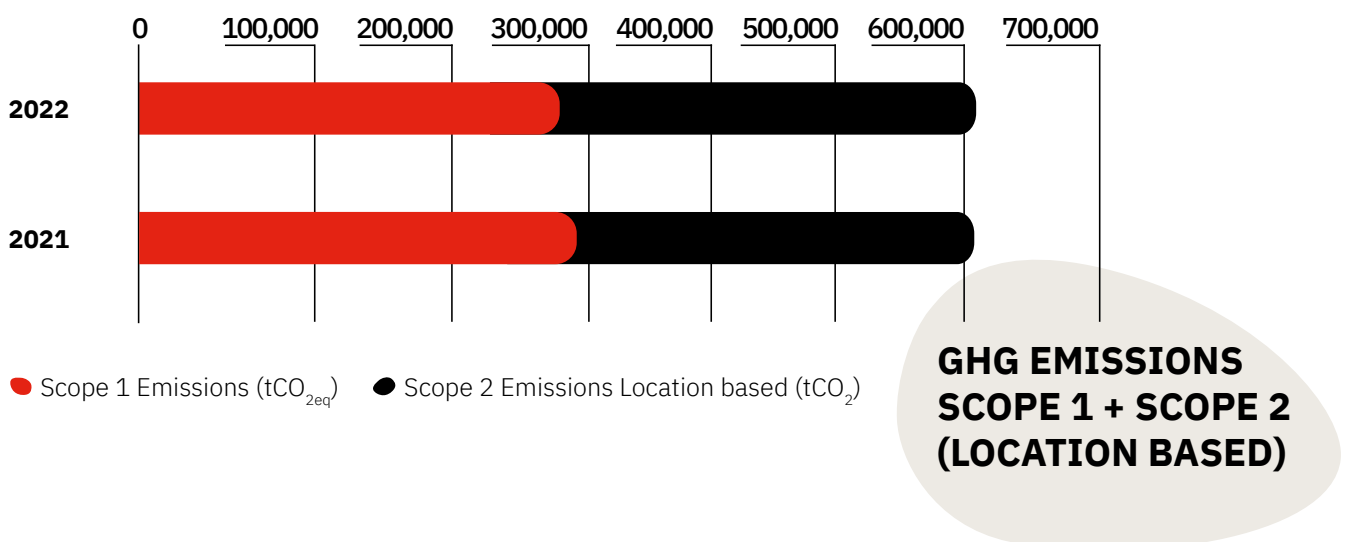
The picture is completed by the implementation of BAT and the experimentation of innovative technologies for future large-scale application.

The performance in the 2021-22 financial year related to ABS, calculated on a cumulative Scope 1 + Scope 2 location-based basis, totalled 615,409 tonnes of CO<sub>2</sub>-equivalent: this figure indicates a **slight** increase in the level of cumulative emissions related

to core processes compared to the previous year, despite a marked increase in production. This figure demonstrates the goodness of the initiatives undertaken in recent years for improving efficiency and optimisation.

| GHG emissions <sup>15</sup>   |                |                |
|---|----------------|----------------|
|   | 2022           | 2021           |
| Direct GHG emissions - Scope 1 (tCO <sub>2eq</sub> )  | 275,392        | 285,991        |
| Indirect GHG emissions from energy consumption - Scope 2 Location based (tCO <sub>2</sub> ) | 340,017        | 327,806        |
| Indirect GHG emissions from energy consumption - Scope 2 Market based (tCO <sub>2</sub> )   | 510,082        | 461,814        |
| <b>Total Scope 1 + Scope 2 location based (t CO<sub>2eq</sub>)</b>                          | <b>615,409</b> | <b>613,797</b> |
| <b>Total Scope 1 + Scope 2 market based (t CO<sub>2eq</sub>)</b>                            | <b>785,474</b> | <b>747,805</b> |

This consideration is reinforced by the fact that, during the financial year just ended, there was a **decrease in Scope 1 GHG emissions of 3.85%** compared to the previous financial year.



<sup>15</sup> The calculation of direct CO<sub>2</sub> emissions – Scope 1 has been estimated on the basis of the certification issued by the Emission Trading System (ETS).

For the calculation of Scope 2 emissions, in line with the GRI Sustainability Reporting Standards, both calculation methods were used. The Market-based method is based on the CO<sub>2</sub> emissions by energy suppliers from whom the organisation purchases electricity through a contract, and can be calculated by considering: Energy Guarantee of Origin certificates and direct contracts with suppliers, supplier-specific emission factors, emission factors relating to the “residual mix”, i.e. unmonitored or unclaimed energy and emissions [continue on page 59]

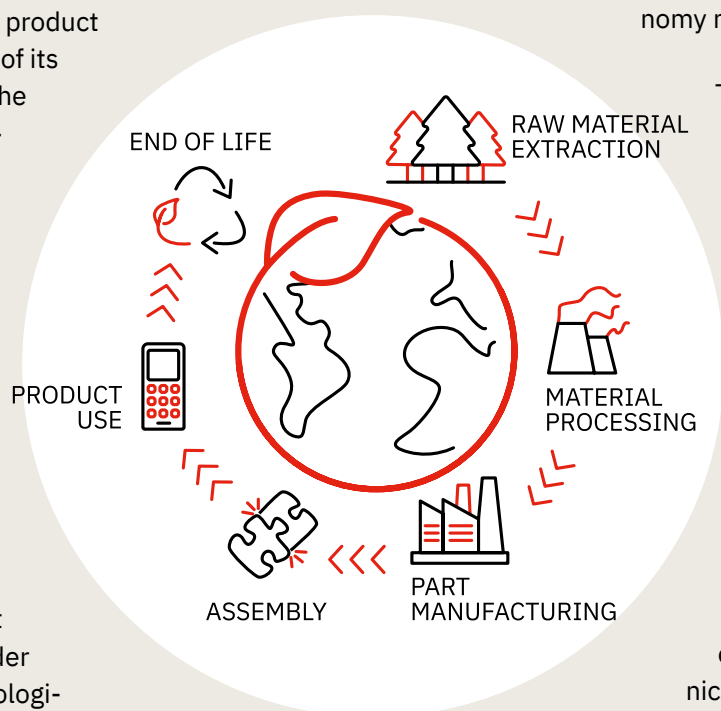


## AN EVER LIGHTER STEEL ON THE ENVIRONMENT. THE LCA PROJECT

Adopting a new way of thinking in a circular perspective leads us to consider the concept of life cycle, looking at the raw materials used, energy consumed, waste and emissions of a product through each stage of its life to determine the environmental impacts it will have. The approach, which starts at the design and engineering stage and ends when the product reaches the end of its useful life, aims to minimise the environmental impact at each stage in order to improve the ecological profile of that product according to a life cycle assessment (LCA).

ABS has completed an LCA (Life Cycle Assessment) project to measure and validate the im-

pacts of its processes/products from the extraction of raw materials to the production of steel and all the way to the gates of the plant. While this is a complex project, ABS considers it necessary. It is essential that the steel production processes are analysed so that we can gain a clear picture of their main environmental impacts, and open the field to a range of possible solutions towards a circular economy model.



The results of the project made it possible to:

- identify areas for technical, management and logistical improvement;
- associate the relevant environmental loads to the specific phases being analysed;
- initiate the study of alternative technical solutions to help reduce the environmental impacts throughout the supply chain;
- lead a new design of products and processes seeking to minimize their impact on the environment.

(method used with Italy emission factor: for 2021 0.459 kgCO<sub>2</sub>/kWh; for 2022 0.457 kgCO<sub>2</sub>/kWh - source: AIB - European Residual Mixes, 2021; AIB - European Residual Mixes 2022). The location-based method is based on average emission factors related to power generation for well-defined geographical boundaries, including local, sub-national or national boundaries (method used, with Italy emission factor: for 2021 0.336 KgCO<sub>2</sub>/kWh; for 2022 0.315 KgCO<sub>2</sub>/kWh - source: Terna 2018; Terna 2019). Emissions of Scope 2 are expressed in tonnes of CO<sub>2</sub>; however, the percentage of methane and nitrous oxide has a negligible effect on total greenhouse gas emissions (CO<sub>2</sub> equivalent) as can be inferred from the technical literature of reference.



# ENVIRONMENT

## A FOREST IN THE STEELWORKS

Tens of thousands of plants bed out in the woods that metaphorically embrace the ABS plants in Cagnacco as in Croatia, forming a green lung. The wooded areas covering more than 13 hectares and the iconic ABS piezometric tower (to all intents and purposes a vertical forest) at the Cagnacco plant serve multiple purposes: on the one hand, they allow mitigation of existing structures and at the same time improve air quality due to the oxygen produced by the planted

plants, reduce environmental pollution and overall represent a CO<sub>2</sub> sink by contributing around 190t of CO<sub>2</sub> per year.

An increase in biodiversity has been observed in these areas and in the area surrounding the plants: the woods offer shelter to both wild mammals and bird species, which are increasingly choosing them as their home.



## THE PLASTIC THAT REDUCES CO<sub>2</sub>

Steel production is one of the most energy-intensive sectors and contributes about 7% of global climate-changing gas emissions, of which about 97% are CO<sub>2</sub> emissions.<sup>16</sup>

The sector is defined as “hard to abate” because in the different steel production processes the use of coal is crucial (steel production is by far the largest user of coal), and consequently because of the objective difficulty of decarbonising it. If we also consider the fact that steel is an indispensable material for modern society and that forecasts predict an increase of more than 30% in current production volumes between now and 2050, in order to achieve the Net-Zero target in 2050 enormous efforts will have to be made from both in terms of technology and process, focusing on innovation and research and development.

Aware of the fact that there is no single path to decarbonisation targets, ABS is building a composite strategy that addresses the problem using all possible approaches, integrating the improvement in efficiency of energy and methane gas consumption with process optimisations and innovative, less energy-intensive and therefore less-emitting equipment and plants. In addition to this, in the coming years, R&D&Innovation projects will make it possible to complement the above with results from CO<sub>2</sub> capture and reuse technologies, the use of alternative energy carriers such as hydrogen, and the extensive use of energy from renewable sources and new materials to

be used in the smelting process instead of coal. In this context, ABS started a pilot project in 2021 to replace the anthracite used in the production of foamed slag with an innovative polymeric material<sup>17</sup>. The product, first used in one of the two electric arc furnaces and with a maximum substitution ratio of 60% (as per the non-substantial amendment of the integrated environmental authorisation Decree No. 2613/AMB of 05/12/2021), is a secondary raw material from the recycling of post-consumption plastic packaging.

Due to its chemical composition, the product in question behaves as a reducing and/or foaming agent, but as it is composed of more than 30% biomass, as a replacement for traditional fossil sources, it is an excellent way to reduce the CO<sub>2</sub> emissions of the steel melting process, which would otherwise be difficult to achieve.

In fact, this material, as certified by ISPRA, has



16. Iron and Steel Technology Roadmap Towards more sustainable steelmaking – IEA Part of the Energy Technology Perspectives series

17. The product complies with the technical standard UNI 10667-17:2021 (R-PMIXSRA) and has ceased to be waste pursuant to Article 184-ter of Italian Legislative Decree No. 152/2006 as amended





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an emission factor about 35% lower than that of anthracite, which allows an equal decrease in CO<sub>2</sub> emissions for the same amount of material used.

The results of the pilot project were very positive, both in terms of production efficiency and in terms of emissions (of the parameters required in the aforementioned decree). Therefore, continued use of the material is expected in the coming financial year.

For ABS, using this material as a substitute for anthracite will mean making a very strong contri-

bution to environmental sustainability. Firstly, because its use will reduce the direct CO<sub>2</sub> emissions of the electric furnace by around 10%. Secondly, because the supply of virgin materials and the associated transport will be reduced. Finally, because using such a material will contribute doubly to the circularity of processes thanks to the use of recycled plastic material within a production process based on the use of another recycled material, i.e. ferrous scrap.

## AIR

ABS is aware that pollution harms our health and our environment and is one of the main causes of biodiversity loss and it also curtails the ability of ecosystems to provide functions such as CO<sub>2</sub> sequestration, absorption capacity and decontamination.

ABS's business produces both point emissions into the atmosphere, produced as a result of steel production and generated at chimneystacks, and diffuse emissions, associated with various preparatory and/or subsequent phases of production or even production that cannot be channelled into specific chimneystacks, such as, for example, the movement of scrap in the plant yards, operations connected to the stowage of products in external parks and their subsequent shipment, and the opening and closing phases of some reheating and/or heat treatment furnaces. There are about 50 authorised emission points at the ABS production sites of Cargnacco, some of which have dust abatement equipment such as bag filters or wet abatement systems as well as injection

systems for dioxin elimination products.

The emissions are analysed according to the technical specifications set out in the authorisations issued by the competent authorities, which also specifies the monitoring and maintenance activities for the emission abatement systems.

In order to ensure full compliance with industry environmental regulations, ABS at its Cargnacco site adopted as from 2018 a Continuous Emission Monitoring System (CMMS), which measures in real time the parameters of temperature, flow rate and quantity of dust in the chimneystack, comparing hourly and daily averages with the values set as maximum limits and defined in the environmental authorisation.

Atmospheric emissions are associated with dust, nitrogen oxides (NOx), carbon monoxide (CO), mercury (Hg), dioxin and furans. These substances are subject to compliance with the regulatory constraints of the Environmental Authorisation issued by



the competent authority to ABS production plants. Thanks to the abatement technologies and processes implemented at all production plants, the values measured are well below these limits.

Analysis of the data collected shows that there has been a general increase in emissions into the atmosphere linked to an increase in production in ABS Cargnacco. On the other hand, we must also take into account that in 2021 ABS Sisak had produced much less because of the compulsory stop due to the earthquake and subsequent maintenance work.

#### Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant emissions

|  | 2022     | 2021     |
|--|----------|----------|
| Suspended particulate matter (SPM) (t) | 24.82    | 8.67     |
| NOx Nitrogen oxide (t)                 | 403.83   | 396.28   |
| CO (t)                                 | 1,399.05 | 1,274.90 |
| Dioxin (gr)                            | 0.37     | 0.2      |

## WATER WITHDRAWALS AND DISCHARGES

In addition to energy, water also plays a key role in the production of special steels, as it is necessary to cool both the products and the production equipment.

ABS Cargnacco draws water from the public water system, for civil uses (canteen, toilets, locker rooms, etc.), and from a well (abstraction from groundwater by pump) that provides the water necessary for its

industrial uses. The water abstracted from the well is not used as it is, but is processed to make it suitable for industrial use. In ABS Sisak, the water is drawn from the Sava River, and from the water system, while in ACM, the water needs are completely ensured by groundwater extraction.

The impacts on the water resources are limited to the consumption of well water, with a total water withdrawal of just over 2 million cubic metres per year, of which more than 70% is borne by the Cargnacco production plant. Water is a precious resource and, in order to keep water consumption as low as possible, ABS adopted semi-closed cooling circuits to minimise water losses.

An important investment made at the Italian plant concerns the replacement of the evaporative towers that oversee the steel mill's water treatment plant with models that perform better in terms of both efficiency - thanks to lower electricity consumption - and noise impact reduction as they are of a silenced type. The decision to use evaporative towers to cool the temperature of the water allows it to be re-circulated a large number of times, considerably limiting the





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consumption of water abstracted from the well. Water withdrawal does not take place in water-stressed areas<sup>19</sup>: in fact, the Udine Cargnacco plant and the Croatian Sisak plant are medium-high (20% - 40%) and medium-low impact (10% - 20%), respectively<sup>20</sup>.

L'acqua viene utilizzata per il raffreddamento e nei processi di produzione dell'acciaio.

| Water withdrawal by withdrawal source (Megalitres ML) |              |              |
|---|--------------|--------------|
|   | 2022         | 2021         |
| GRI 303-1   | All areas    | All areas    |
| <b>Surface water</b>                                  |              |              |
| Fresh water ≤ 1000 mg/l total dissolved solids        | 355          | 263          |
| Other water > 1000 mg/l total dissolved solids        | -            | -            |
| <b>Total</b>  | <b>355</b>   | <b>263</b>   |
| <b>Groundwater</b>                                    |              |              |
| Fresh water ≤ 1000 mg/l total dissolved solids        | 1,533        | 1,388        |
| Other water > 1000 mg/l total dissolved solids        | -            | -            |
| <b>Total</b>  | <b>1,533</b> | <b>1,388</b> |
| <b>Third-party water</b>                              |              |              |
| Fresh water ≤ 1000 mg/l total dissolved solids        | 168          | 88           |
| Other water > 1000 mg/l total dissolved solids        | -            | -            |
| <b>Total</b>  | <b>168</b>   | <b>88</b>    |
| <b>Total water withdrawals</b>                        | <b>2,055</b> | <b>1,740</b> |

## THE WATER CYCLE:



19. The water stress measures the ratio of total water withdrawal to the available renewable resources of surface water and groundwater. Water withdrawal includes domestic, industrial, irrigation and livestock uses.  
 20. Source WATER RISK ATLAS – WRI (<https://www.wri.org/aqueduct>). The analysis used the results of the “Baseline Water Stress” column. Water-stressed areas are defined as those having a High and Extremely High risk.

**Water discharges by source, types and possible water stress**

|  | Areas not subject to water stress |
|--|-----------------------------------|
| <b>Fresh water [TDS] &lt;= 1000 mg/L</b>   | <b>693,346</b>                    |
| Surface water                              | 674,516                           |
| Third-party water resources (sewer system) | 18,830                            |

Concerning wastewater management in ABS Cargnacco, “black” water, i.e. the first rainwater runoff from roofs and yards and wastewater equivalent to domestic waste, is discharged into the municipal sewerage system as opposed to the “white” water, i.e. the second rainwater.

In the innovative QWR wire rod mill, rainwater will be reused within the production cycle by flowing into the water treatment plant. Industrial water from the cooling circuits and the drains is discharged into the water course. The ABS Sisak plant discharges most of its water directly into surface water.





# ENVIRONMENT

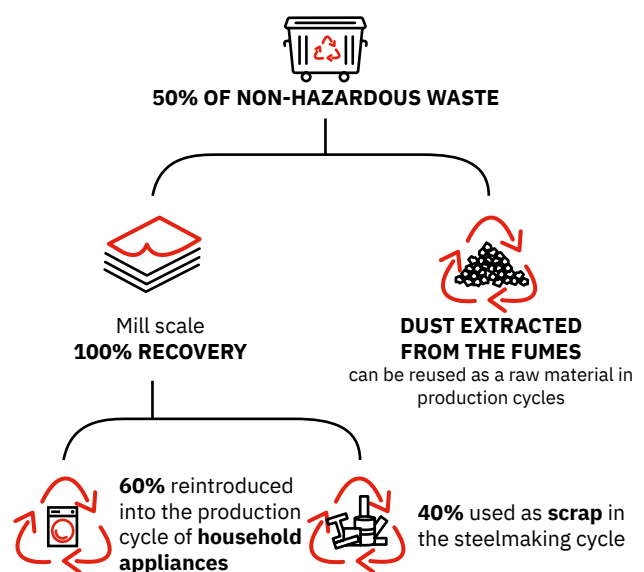
## WASTE AND CIRCULAR ECONOMY

All ABS companies have a waste management system that complies with current environmental regulations. Once the waste has been identified through the use of EWCs (European Waste Catalogue), it is delivered to the authorised entity to carry out the appropriate recovery or disposal activities, giving preference to reuse, recycling and waste recovery activities, rather than disposal through landfill, or incineration, with or without energy recovery.

All-in-all, just under 150,000 tonnes of waste were generated in 2022, of which about 75% is classified as non-hazardous waste.

The percentage of waste that is recovered, re-used or recycled is 52% of the total, while only the remaining 48% is mainly landfilled.

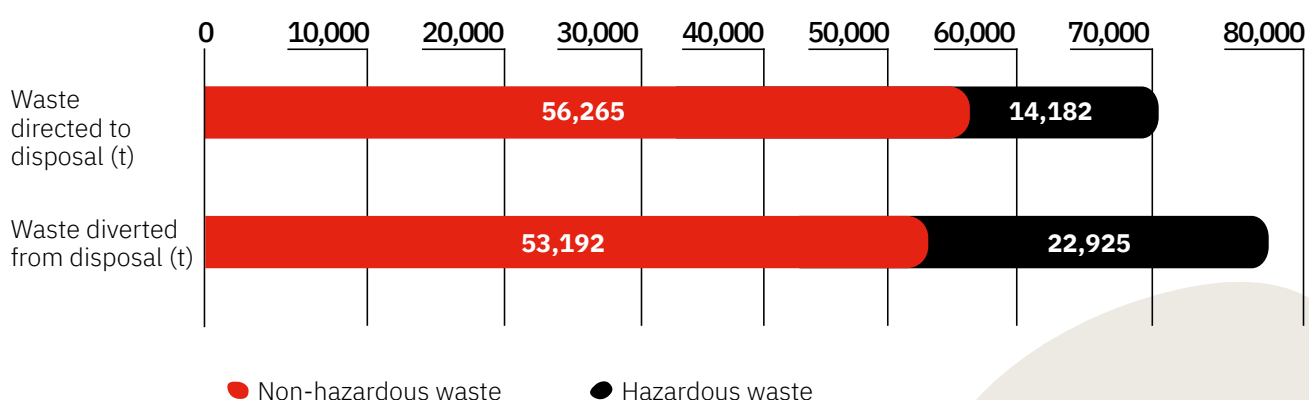
## WASTE RECOVERY AND REUSE



| Waste (t)   |          |               |
|---|----------|---------------|
|   | 2022     |               |
| GRI 306-4 Waste diverted from disposal                | On-site  | Off-site      |
| <b>Hazardous</b>                                      |          |               |
| Reuse   | -        | -             |
| Recycling   | -        | 22,907        |
| On-site storage                                       | -        | -             |
| Other recovery operations                             | -        | 18            |
| <b>Hazardous waste diverted from disposal (t)</b>     | <b>-</b> | <b>22,925</b> |
| <b>Non-hazardous</b>                                  |          |               |
| Reuse   | -        | -             |
| Recycling   | -        | 53,184        |
| On-site storage                                       | -        | -             |
| Other recovery operations                             | -        | 8             |
| <b>Non-hazardous waste diverted from disposal (t)</b> | <b>-</b> | <b>53,192</b> |
| <b>Waste diverted from disposal (t)</b>               | <b>-</b> | <b>76,117</b> |



| Waste (t)   |          |               |
|---|----------|---------------|
|   | 2022     |               |
| GRI 306-5 Waste directed to disposal                | On-site  | Off-site      |
| <b>Hazardous</b>                                    |          |               |
| Incinerator   | -        | 441           |
| Landfill  | -        | 12,551        |
| Other disposal operations                           | -        | 1,189         |
| <b>Hazardous waste directed to disposal (t)</b>     | <b>-</b> | <b>14,182</b> |
| <b>Non-hazardous</b>                                |          |               |
| Incinerator   | -        | 6             |
| Landfill  | -        | 56,146        |
| Other disposal operations                           | -        | 112           |
| <b>Non-hazardous waste directed to disposal (t)</b> | <b>-</b> | <b>56,265</b> |
| <b>Waste directed to disposal (t)</b>               | <b>-</b> | <b>70,447</b> |



## WASTE PRODUCED BY DESTINATION



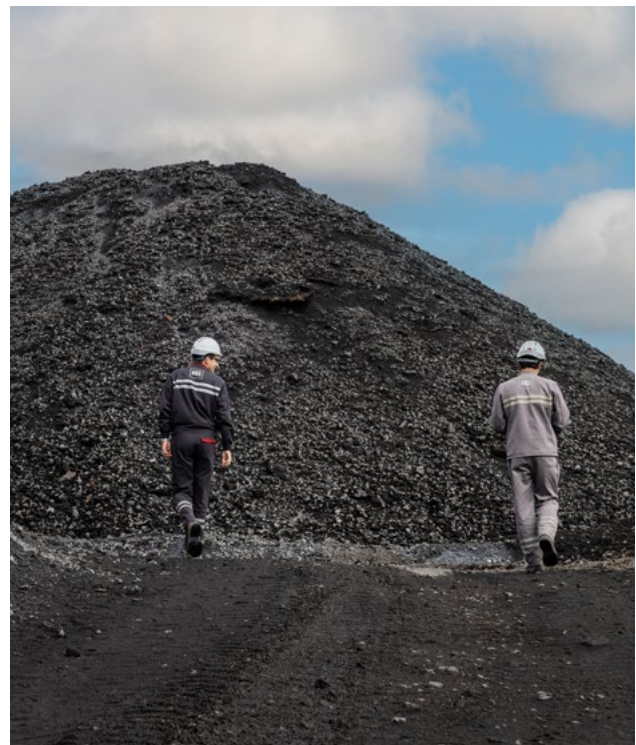
# ENVIRONMENT

Analysing the waste produced according to type, hazardousness and final destination, the following categories are identified:

| Year 2022            | Waste diverted from disposal (t) | Waste directed to disposal (t) |
|----------------------|----------------------------------|--------------------------------|
| <b>Non-hazardous</b> | <b>53,192</b>                    | <b>56,265</b>                  |
| Other waste          | 21,600                           | 45,993                         |
| Paper and cardboard  | 68                               |                                |
| Sludge               |                                  | 98                             |
| Metals               | 8,843                            |                                |
| Plastic              | 47                               | 2                              |
| Metal-content dust   | 171                              |                                |
| Refractory materials | 4,067                            | 10,170                         |
| Mill scales          | 18,397                           |                                |
| <b>Hazardous</b>     | <b>22,925</b>                    | <b>14,183</b>                  |
| Other waste          | 22,925                           | 11,640                         |
| Sludge               |                                  | 2,421                          |
| Metals               |                                  |                                |
| Refractory materials |                                  | 121                            |
| <b>Total</b>         | <b>76,117</b>                    | <b>70,447</b>                  |

ABS exists to recycle, not only because it uses metal scrap as a raw material, but also because of its by-products. Waste can be reintroduced in the market in large-scale virtuous circular economy processes also. The dust extracted from the fumes generated by the electric furnaces can be separated using commercially available technologies to recover the metals contained, including zinc, which can be reused as a raw material in production cycles.

Mill scale is 100% recovered: of this, about 60% is reintroduced into the production cycle of household appliances to make counterweights for washing machines; the remaining 40% is used as scrap in the steel cycles of other mills as well. The average quantity of scale recovered in the last financial year exceeded 18,000 tonnes, equivalent to the reuse in the manufacture of more than 400,000 washing machines. In 2021, the ABS Sisak plant started a circular economy project, which is currently being analysed,



to use processing slag no longer as waste but as a by-product.

The waste disposal does not take into account the processing of steel slag carried out internally at ABS, which is subsequently used for the production of Ecogravel, a CE-marked product for the construction market.

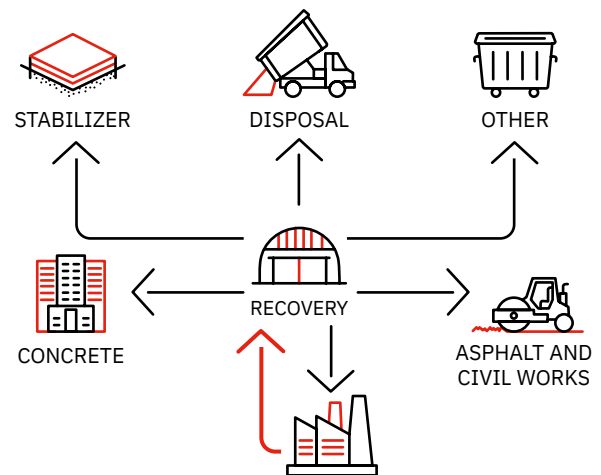
|                            | Year 2022      | Year 2021      |
|----------------------------|----------------|----------------|
| Ecogravel Black (t)        | 121,342        | 166,469        |
| Ecogravel White (t)        | 10,228         | 11,887         |
| <b>Total Ecogravel (t)</b> | <b>131,571</b> | <b>178,356</b> |

Ecogravel is a black or white industrial aggregate that has been produced by ABS SpA for over 15 years and is used in a variety of applications. Ecogravel Black is used as a substitute for natural aggregates in the production of concrete, asphalt and civil engineering works, while Ecogravel White is mainly used as a substitute for lime in soil stabilisation, especially in road foundations where the load-bearing properties of the soil on site must be improved.

ABS SpA produces Ecogravel Black by processing the slag from the electric arc furnace, while Ecogravel White is produced by processing the slag from the ladle furnaces. Global Blue, the department specifically created to process its steel waste, has been active and fully integrated into the company's production cycle since 2007. In addition to avoiding the landfilling of slag produced by ABS SpA, this activity is further virtuous because it allows the metal inside the slag to be recovered and made available again for the smelting process.

The production cycle is therefore optimised both for the production of steel and for the production of

## ECOGRAVEL: CYCLE AND USES



black and white steel slag, which can be considered a co-product of steel. As stated in its corporate purpose, ABS SpA is, in fact, a producer of steel and aggregates for asphalt and construction.

Ecogravel Black and White production figures for the last financial year were just over 130,000 tonnes, down from the previous year's production. The trend was mainly driven by the decrease in demand and it is expected that in the coming years production will return to the levels recorded in previous years.

Just in the past 6 years, more than 1000 km of roads have been built using Ecogravel in Friuli Venezia Giulia, Veneto and Slovenia.



# ENVIRONMENT

## NOISE & VIBRATION

Limiting the impact associated with noise and vibration is an extremely important activity identified by all ABS production plants in Italy and Croatia.

In particular, this activity is monitored at the Udine, Cagnacco plant, where the receptors that are monitored in terms of output and input values, day and night, are points coinciding with private houses located near the plant.

In order to comply with the limits defined in the acoustic zoning plan for the area, ABS uses sophisticated software to simulate the interaction of the various sound sources, which allows it to predict the “acoustic footprint” of the plant and to adopt the most appropriate containment measures each time new installations are added or existing ones are modified. In this regard, among other initiatives, mitigation barriers were constructed along the southern and western borders of the plant, reaching a length of over 2 km since 2013. The mitigation hills, made with the certified Ecogravel product mixed with vegetable soil and subsequently planted with trees. They reduce noise emissions by more than 2 dB and also provide a visual filter of the industrial core, for the benefit of the residents in the immediate vicinity of the steelworks.

**13.5% of the environmental investments** made by ABS Cagnacco in the last three years were dedicated to projects aimed at reducing and limiting the acoustic impact caused by production activities in the surrounding area, and meet the needs of the local community and residents.

The ABS Sisak plant has plenty of vegetation around the production premises to mitigate the impact of noise and vibration, and the area does not border



on residential areas. For these reasons, there are no particular critical issues for compliance with emission limits.



## LOGISTICS AND TRANSPORT

ABS plant logistics deals with the planning and management of the flow of raw materials and finished products inside and outside the plants, with the aim of constantly improving the service offered to customers and putting sustainability at the centre, offering an excellent, innovative service that maintains the focus on respect for the environment and the growth of people.

The Logistics Team is made up of a group with people from various departments, providing a broad view of the organisation's requirements.

The projects implemented in this area contribute to making the ABS Group companies more sustainable by aiming to reduce environmental impact through optimisation of flows and through diversification of the means of transport used, favouring less impactful methods in terms of both resource consumption and CO<sub>2</sub> emissions.

Our target is to reach **70% of the flows handled by rail within 2 years**, thus reducing the impact on the environment, improving safety conditions and with fewer trucks (about 2000 per month) on the roads.

In this regard, projects were set up in the last financial year to specifically analyse the diversification of shipments from trucks to trains. In terms of energy and emissions, rail transport is in fact among the most energy-efficient transport systems, which are associated with low levels of climate-altering gas emissions. In fact, analysing a journey of around 500 km, the impact generated by emissions from the train is 24% of the impact generated by emissions from a similar transport by truck.<sup>21</sup> A fully loaded train is in fact able to transport a load equivalent to 80 articulated trucks, reducing not only emissions, but also the need for drivers and avoiding queues on motorways (80 articulated trucks are equivalent to a queue of approx. 1.5 km) resulting in more reliable and safer shipments.

In 2022, almost all inter-company flows between our Cagnacco and Sisak plants were by train; in total, almost 149,000 tonnes of steel were transported, thus contributing to keeping around 6,000 trucks off the roads.

Also during the last year, **40% of incoming material and finished products** were transported by train. The markets



21. A calculation with EcoTransIT (one of the most widely used programmes in the shipping world to calculate emissions for each type of transport) shows that, for example, for a journey of around 500 km such as Udine - Turin, the CO<sub>2</sub> emissions produced by the train are 0.9 compared to 3.9 produced by the truck.



# ENVIRONMENT

managed this way are: Italy, Spain, Austria, Romania, Germany, England and Sweden.

To be able to sustain the flows and make them competitive as well as “sustainable”, it is important to keep the trains always loaded and to avoid empty kilometres being travelled; such a circulation would in fact produce extra costs and CO<sub>2</sub> increases. Based on these considerations, a number of tests were then carried out using railway wagons that could transport different classes of goods, in order to optimise incoming and outgoing flows.

To support the growth plan, we are carrying out the first part of investments, amounting to around 5 million euro, to expand the internal railway infrastructure and thus reduce handling by traditional means while also improving safety conditions.

ABS Sisak also developed a functional plan to optimise transport and logistics, which indirectly is also reflected in a reduction of climate-altering gas emissions. The most important activities include the increase of rail transport up to 90% for the delivery of the finished product, the choice of new logistics and transport methods using both river navigation via the Danube and maritime transport via the Black Sea, despite the current difficulties related to the Russian-Ukrainian conflict, efforts are made to give top priority to intermodal transport depending on the requirements of the end customer and the destination of the goods.

Over the past few months, the cost of sea freight has risen and the availability of containers and ship space has not only decreased, but in some cases is uncertain. In order to reduce waste, a cost-optimising system was developed to bring the use of containers

to maximum saturation. ABS's wide range of products is managed in advance, allowing the number of containers to be optimised, avoiding congestion both during loading and on the ship.

In 2021, we  
received about  
**15,700**  
**WAGONS OF**  
**SCRAP.**

Thanks to the project developed with Danieli Automation DIGI&MET and by means of state-of-the-art technology, such as the new rail portal for wagon management, the material is catalogued, mapped and entered in real time into the company's systems, guaranteeing precise process control in the loading phase of the basket destined for production.

Since 2015, within the Cargnacco plant, in order to make loading more efficient and to speed up and optimise material handling, a geolocalisation system has been introduced on forklifts and tractors with the aim of minimising movements and, as a direct consequence, consumption and emissions.

Other projects that ABS Sisak is developing include a new charging station for electric vehicles and the gradual replacement of the company car fleet with electrically powered vehicles.









# THE COMPANY

## PEOPLE

People are the cornerstone of ABS, as they are the custodians of the knowledge and know-how associated with the processing of special steels.

ABS has always been committed to maintaining a positive and lasting relationship with employees, investing in their well-being, continuous training, development and opportunities.

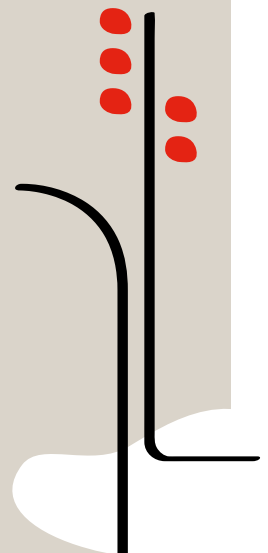
ABS engages with its people because it believes that each of them must have the opportunity to assert themselves and bring out the valuable talents within them, a distinctive and indelible trait that can generate continuous growth and innovation for the entire community.

The cornerstones of our “human capital” approach can be found in the Code of Ethics, an active personnel management tool, and a key element in encouraging team spirit and teamwork, in developing training paths to increase personnel skills and attract new talent, and in creating a clear, transparent and open internal communication channel for all ABS employees.

ABS is a culturally, geographically, historically and linguistically diverse integrated company. Diversity is considered to be an opportunity for sharing and growth, both of the people and of the company’s know-how.

Maintaining a stimulating and proactive organisational climate is an unwritten rule followed by all ABS personnel, thanks to the value attributed to teamwork also, which is subject to an annual review. This orientation is the cornerstone of the efficiency and quality of ABS, enhanced by the sharing of experience, knowledge and professionalism.

In ABS, the culture of enhancing the characteristics of the individual is fundamental so that everyone feels appreciated and well-integrated.




ience, knowledge and professionalism. This is why different team members are rotated to meet organisational requirements as they arise.

Diversity is protected and respected: in fact, any form of harassment related to personal diversity is explicitly prohibited.

All employees, but also suppliers and partners who subscribe to the ABS Code of Ethics, must personally contribute to promoting and maintaining a climate of mutual respect in the work environment, paying particular attention to respecting the sensitivities of others.

With a view to increasing knowledge and contributing to clear and transparent communication with employees, a column called ABS Share was created in the Cargnacco office, which provides for the weekly publication of posts concerning activities and projects and their sharing via the LinkedIn platform. Similarly, to promote the company’s values, ABS Cargnacco created a group of Brand Ambassadors, bearers of new ideas, who meet monthly to share activities, organised events and the company’s image.



A full-page background image showing two men in safety gear walking on a metal walkway on a rooftop. The man in the foreground is wearing a bright orange high-visibility jumpsuit with reflective silver stripes, a white hard hat, and safety glasses. The man behind him is wearing a dark blue jacket, dark trousers, and an orange hard hat. They are both looking towards the right. The walkway has metal railings and a grating floor. In the background, there are blue corrugated metal structures and a cloudy sky.

**ABS is a culturally,  
geographically, historically  
and linguistically diverse  
integrated company.**



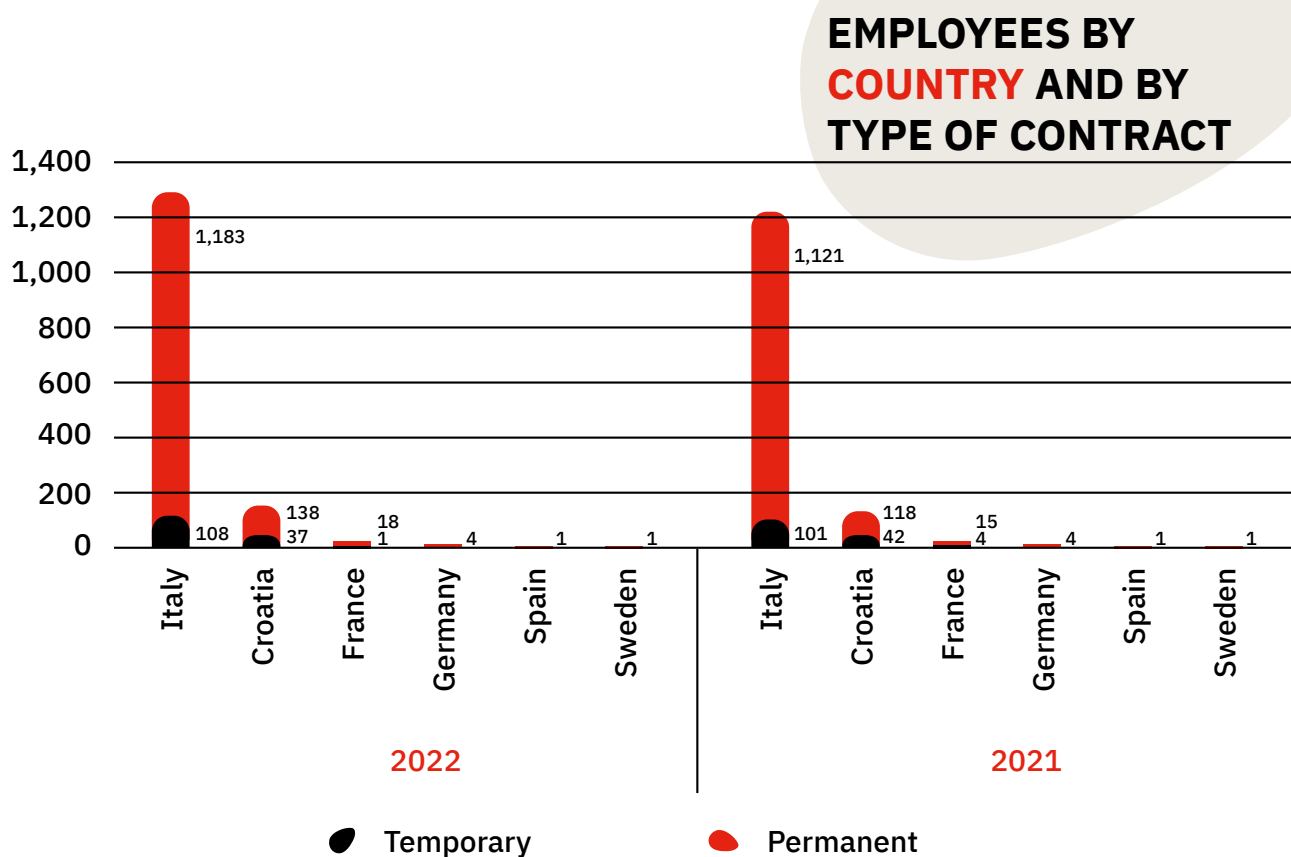
# THE COMPANY

In December 2020, the Sisak area was significantly affected by a strong earthquake of magnitude 6.4, which struck the area south-east of Zagreb. The earthquake caused severe infrastructural damage, rendering some employee houses unsafe for normal use. ABS Sisak, in order to support its employees and their families, covered the costs of alternative accommodation to enable the renovation of earthquake-damaged houses.

At ABS, we continuously work to improve the knowledge, skills and expertise of our people through internal and external training courses and personal development plans. In Croatia, Sisak being the largest steel plant in the country, lower wages were revised with the intention of retaining resources and know-how.

A total of 1,491 employees work in ABS, of whom 108 belong to the female gender and 1,383 to the male gender. ABS has a strong focus on gender diversity, although it is aware that the steel sector is generally more attractive to men, who predominate both in the company's production workforce and among white collars.

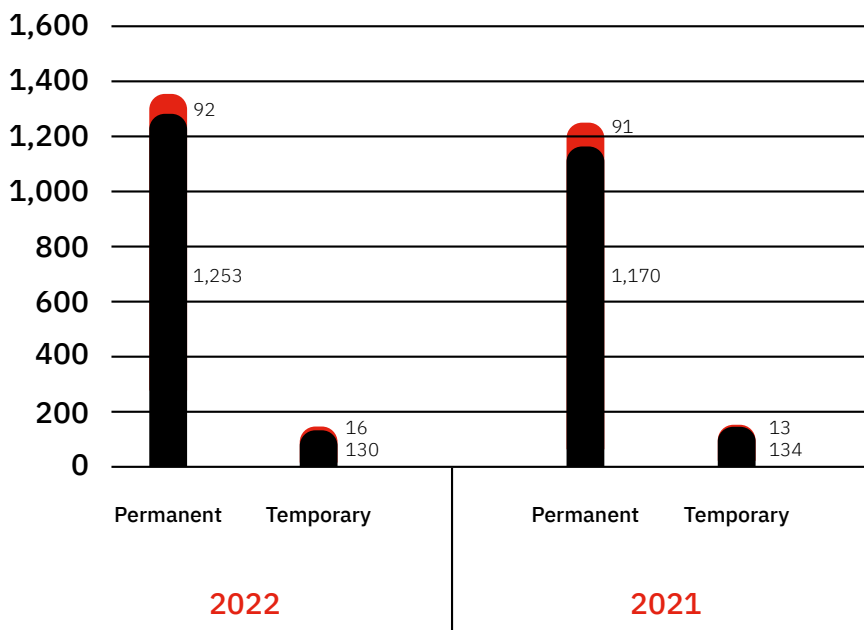
At the Cargnacco plant there is a total of 1,291 employees, then we have the Croatian site, 175, the French site, 19, the German site, 4, and the Spanish and Swedish sites where there is only one employee.



The personnel figures are in line with the previous year's figures; 90% of the employees are employed on permanent contracts. When analysing the per-

centage of employees employed full-time, this value in the last 2 years is close to 100%.

| Employees by gender and by type of contract |              |            |              |
|---|--------------|------------|--------------|
|   | Male         | Female     | Total        |
| <b>2022</b>                                 | <b>1,383</b> | <b>108</b> | <b>1,491</b> |
| Permanent                                   | 1,253        | 92         | 1,345        |
| Temporary                                   | 130          | 16         | 146          |
| <b>2021</b>                                 | <b>1,304</b> | <b>104</b> | <b>1,408</b> |
| Permanent                                   | 1,170        | 91         | 1,261        |
| Temporary                                   | 134          | 13         | 147          |



**TOTAL NUMBER  
OF EMPLOYEES  
BY GENDER  
AND TYPE OF  
CONTRACT**

Female  
Male





# THE COMPANY

| Employees by gender and type of employment |              |            |              |
|--|--------------|------------|--------------|
|  | Male         | Female     | Total        |
| <b>2022</b>                                | <b>1,383</b> | <b>108</b> | <b>1,491</b> |
| Full time                                  | 1,382        | 107        | 1,489        |
| Part Time                                  | 1            | 1          | 2            |
| <b>2021</b>                                | <b>1,304</b> | <b>104</b> | <b>1,408</b> |
| Full time                                  | 1,303        | 103        | 1,406        |
| Part Time                                  | 1            | 1          | 2            |

An analysis of ABS employee data shows 223 new hires, an increase of 5% compared to the previous year's hires.

In contrast, 144 people left ABS, either due to age limits or to explore new job opportunities, with a total turnover rate of 10%.

| Employees hired (No.) |            |           | New hires (%) |               |
|-----------------------|------------|-----------|---------------|---------------|
|                       | Male       | Female    | Male          | Female        |
| <b>2022</b>           | <b>203</b> | <b>20</b> | <b>14.68%</b> | <b>18.52%</b> |
| < 30 y.o.             | 94         | 9         | 41%           | 50%           |
| 30 - 50 y.o.          | 101        | 11        | 15%           | 16%           |
| > 50 y.o.             | 8          |           | 2%            |               |
| <b>2021</b>           | <b>191</b> | <b>21</b> | <b>14.65%</b> | <b>20.19%</b> |
| < 30 y.o.             | 110        | 7         | 54%           | 41%           |
| 30 - 50 y.o.          | 69         | 10        | 10%           | 14%           |
| > 50 y.o.             | 12         | 4         | 3%            | 22%           |

| Employees turnover (No.) |            |           | Turnover (%) |               |
|--------------------------|------------|-----------|--------------|---------------|
|                          | Male       | Female    | Male         | Female        |
| <b>2022</b>              | <b>128</b> | <b>16</b> | <b>9%</b>    | <b>15%</b>    |
| < 30 y.o.                | 33         | 2         | 15%          | 11%           |
| 30 - 50 y.o.             | 54         | 12        | 8%           | 17%           |
| > 50 y.o.                | 41         | 2         | 9%           | 10%           |
| <b>2021</b>              | <b>101</b> | <b>12</b> | <b>7.75%</b> | <b>11.54%</b> |
| < 30 y.o.                | 26         | 1         | 13%          | 6%            |
| 30 - 50 y.o.             | 43         | 9         | 6%           | 13%           |
| > 50 y.o.                | 32         | 2         | 8%           | 11%           |

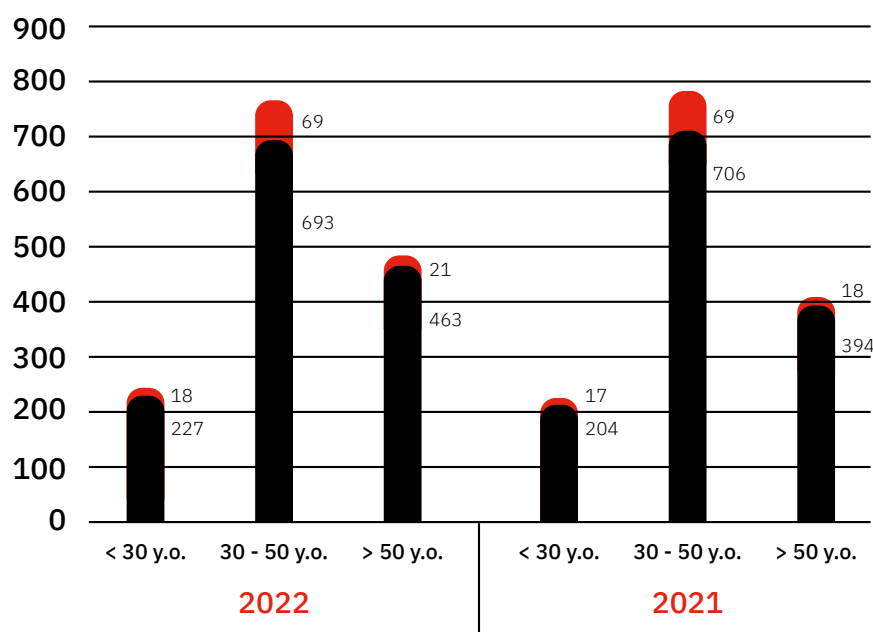
ABS tends to build long-term relationships with its personnel based on trust, growth in skills and recognition of professionalism; this is evident from the

fact that almost two-thirds of the company population, 63%, has been working for over 6 years.



ABS is not only expanding, but also young – 68% of the employees are under 50 and about 71% of com-

pany population have at least a secondary school education.



## EMPLOYEES BY GENDER AND AGE

Female  
Male

|                                   | 2022               |                 |                     | 2021               |                 |                     |
|-----------------------------------|--------------------|-----------------|---------------------|--------------------|-----------------|---------------------|
|                                   | Males              | Females         | Total               | Males              | Females         | Total               |
| Trainees                          | 2 (0%)             | -               | <b>2 (0%)</b>       | 1 (0%)             | 1 (0%)          | <b>2 (0%)</b>       |
| Blue collars                      | 1,084 (73%)        | 25 (2%)         | <b>1,109 (74%)</b>  | 1,028 (73%)        | 22 (2%)         | <b>1,050 (75%)</b>  |
| White collars and Middle Managers | 283 (19%)          | 80 (5%)         | <b>363 (24%)</b>    | 263 (19%)          | 79 (5%)         | <b>342 (24%)</b>    |
| Top management                    | 14 (1%)            | 3 (0%)          | <b>17 (1%)</b>      | 12 (1%)            | 3 (0%)          | <b>14 (1%)</b>      |
| <b>Total</b>                      | <b>1,383 (93%)</b> | <b>108 (7%)</b> | <b>1,491 (100%)</b> | <b>1,304 (93%)</b> | <b>104 (7%)</b> | <b>1,408 (100%)</b> |

|                                   | 2022               |                  |                   |                     | 2021               |                  |                   |                     |
|-----------------------------------|--------------------|------------------|-------------------|---------------------|--------------------|------------------|-------------------|---------------------|
|                                   | Under 30 years old | 30 - 50 y.o.     | Over 50 years old | Total               | Under 30 years old | 30 - 50 y.o.     | Over 50 years old | Total               |
| Trainees                          | 2 (0%)             | -                | -                 | <b>2 (0%)</b>       | 2 (0%)             | -                | -                 | <b>2 (0%)</b>       |
| Blue collars                      | 207 (14%)          | 521 (35%)        | 381 (26%)         | <b>1,109 (74%)</b>  | 191 (14%)          | 531 (38%)        | 328 (23%)         | <b>1,050 (75%)</b>  |
| White collars and Middle Managers | 36 (2%)            | 232 (16%)        | 95 (6%)           | <b>363 (24%)</b>    | 28 (2%)            | 235 (17%)        | 79 (5%)           | <b>342 (24%)</b>    |
| Top management                    | -                  | 9 (1%)           | 8 (1%)            | <b>17 (1%)</b>      | -                  | 9 (1%)           | 5 (0%)            | <b>14 (1%)</b>      |
| <b>Total</b>                      | <b>245 (16%)</b>   | <b>762 (51%)</b> | <b>484 (32%)</b>  | <b>1,491 (100%)</b> | <b>221 (16%)</b>   | <b>775 (56%)</b> | <b>412 (28%)</b>  | <b>1,408 (100%)</b> |



# THE COMPANY

A total of 46 people, 36 men and 10 women, have taken parental leave during the last year. The job retention rate is 100% 12 months after applying for leave, while the rate of return to work is just under 100%, as one person is still taking leave.

Following confirmation of employment, the employee is provided with specific training on the job they will be doing and on the correct use of PPEs, as well as general training on different management systems adopted by the organisation (safety management system, environmental management system, quality management system and energy management system). Additional specific training can be provided for the professional development of the employee based on feedback from their function manager.

Throughout their working life in the company, employees are encouraged to take part in technical and professional development training. The affiliates of the *Steelmaking Division* are convinced that the growth of the company goes hand in hand with the growth of the skills and knowledge of the people who work in it.

ABS Sisak, for example, is the only steel plant in Croatia: this is why there is constant work to improve the knowledge, skills and expertise of employees through internal and external training courses, as well as through personnel development plans.

Despite a momentary stop to all training activities following the Covid-19 health emergency, all mandatory, legally required training activities and all non-mandatory training activities were resumed during the past two years, provided for by internal development plans and resulting from training needs.

Overall, more than 20,500 hours of training were provided in over 450 courses last year. Although the overall figure identifies a slight decrease compared to 2021, the average number of training hours provided per employee is 14.

| Hours of training per function    |  |  |   |
|-----------------------------------|--|--|---|
|                                   | Average number of hours of training (male) <sup>22</sup> | Average number of hours of training (female) | Average number of hours of training (total) |
| <b>2022</b>                       | <b>14.1</b>  | <b>12.4</b>                                  | <b>14.0</b>                                 |
| Blue collars                      | 13.2   | 5.7  | 13.1  |
| White collars and Middle Managers | 17.3   | 14.4   | 16.7  |
| Top management                    | 17.2   | 14.3   | 16.7  |
| <b>2021</b>                       | <b>16.9</b>  | <b>19.3</b>                                  | <b>17.1</b>                                 |
| Blue collars                      | 15.3   | 15.0   | 15.3  |
| White collars and Middle Managers | 23.7   | 20.7   | 23.0  |
| Top management                    | 4.7  | 7.5  | 5.1   |

22. Training hours by gender and employee category were estimated on the basis of employees as at June 30, 2022, and total training hours provided by type (technical, language, managerial and safety).

| 2022                         |               |              |
|------------------------------|---------------|--------------|
|                              | Males         | Females      |
| Hours of technical training  | 7,144         | 431          |
| Hours of language training   | 415           | 10           |
| Hours of management training | 744           | 210          |
| Hours of safety training     | 11,183        | 684          |
| <b>Total training hours</b>  | <b>19,486</b> | <b>1,335</b> |

In ABS, employee performance assessment is carried out annually with various meetings between managers and their subordinates. The managers are supported in the objective assessment of human resources with regard to specific KPIs, behaviour and technical aptitudes through the use of an enabling platform built on the basis of the corporate value system and the job characteristics of each individual employee.

Achieving positive results is everyone's merit; with this idea, ABS recognises annually certain rewards determined based on economic parameters that allow the performance of each individual department to be evaluated from different aspects.

ABS Cargnacco offers a number of initiatives to its employees to ensure high standards of corporate welfare.

One of the most valuable initiatives dating back more than 10 years is the "Fondo Tranquillo", the Quiet Fund, used for solidarity and support in the event of bereavements. The fund is financed by contributions by the company and participating employees. Since 2016, employees can also donate hours of leave, which can then be used voluntarily by other employees who no longer have statutory leave available to assist seriously ill relatives.

Although not every year, ABS Cargnacco has provided numerous scholarships to cover, in full or in part, educational costs for the children of ABS employees enrolled in secondary schools and university. Employees with young children can take advantage of

the nursery, kindergarten and primary school available at the Danieli Group. The Group also sponsors the "Sporting Club", where employees can practice sports such as tennis, football, running, cycling, volleyball and basketball.

To strengthen a team spirit and encourage healthy lifestyles, ABS Cargnacco has organised over the years introductory running courses, held in the park, and martial arts courses. This year, in cooperation with Danieli Sporting Club, the intra-group 2022 Corporate Football Tournament was organised in which two representative teams from ABS participated.

In order to cope with the health emergency related to Covid-19 in ABS Cargnacco, a collaboration with the Red Cross has been in place since 2020, which has provided an antigenic swab point for periodic screening; moreover, an agreement was made with Friuli Coram giving employees and their families the opportunity to undergo molecular swabs at a 30% discount. Finally, with the cooperation of Confindu-





# THE COMPANY

stria, the SarsCov2 vaccination was made available on a voluntary basis to the personnel at the Udine Vaccination Hub.

ABS Sisak has provided and is currently still providing all the necessary means and equipment to prevent the spread of Covid-19 by adopting protocols relating to ensuring social distancing and avoiding gatherings in changing rooms, canteens, offices and at meetings, as well as educating employees on the correct use of masks and the cleaning and disinfection of premises where most people circulate.

ABS is a woman-friendly steelworks and would like to celebrate those whose passion and expertise help to achieve important goals every day. This is why it has chosen to allocate the parking spaces near the main entrance to female employees, for easier and faster access to the buildings and the plant. In addition, a number of reserved parking spaces have been set up for mothers-to-be inside the plant.

To make it easier for employees to receive orders placed online, a self-service pick-up point with lockers has been set up in the ABS Cargnacco office building, where employees can have their purchases delivered, to be collected at their convenience.

ABS also provides its employees, who work in the Cargnacco office, with the Edenred portal, where employees can request refunds for health and school expenses or claim shopping vouchers for discounts at participating businesses, or the Corporate Benefits app that offers discounts and online services at a favourable price.



In May 2022, ACM participated in the challenge “Au boulot j’y vais à vélo!” that promotes the use of bicycles, public transport and smart working in order to avoid CO<sub>2</sub> emissions by minimising the use of cars with a single driver. With a total of 2104 km saved, ACM employees managed to avoid the emission of 515 kg CO<sub>2eq</sub> into the atmosphere.<sup>23</sup>

23. The competition platform calculated according to the kilometres entered and the type of means of transport.



## HEALTH AND SAFETY

ABS regards the issue of protecting people's health as fundamental.

Zero accidents is a top priority in all ABS production plants because of a fully operational and integrated process for managing health and safety aspects. Both the Cargnacco and Sisak plants are certified according to ISO 45001.

Thanks to the presence of a management system, all health and safety risks to which workers are or may potentially be exposed are carefully assessed and regularly updated. All the Group's PPEs (personal protective equipment) are subject to continuous inspections, maintenance and updates.

To ensure that its employees wear suitable PPE that complies with regulatory requirements, a service for washing, sanitising, checking the conditions, and repairing company uniforms has been in operation at the Cargnacco plant since 2016, while a similar project is currently being developed in Croatia.

Accidents, near misses and injuries are reported promptly to the Health and Safety Department, where available, also using the company intranet. The department provides an immediate analysis of the case, suggests corrective and preventive actions, archives documentation, develops and produces reports that will help manage risks more effectively and prevent future occurrences.

"Zero Accidents" is therefore not just a slogan but a real goal that ABS pursues through investment, training, by spreading a safety culture, and through awareness and good practice.



Aware of the fact that in order to achieve this challenging goal, it is necessary to act on behaviour, the **ABS = Accountable Behaviours for Safety** project was resumed. The project aims to provide specific training to operational staff and shift leaders, with the aim of raising their awareness concerning the importance of adopting codified and safe behaviour, as well as emphasising the personal responsibilities related to the failure to comply with shared safety rules.

A total of 10 semi-automatic defibrillators (AEDs) were installed at the Cargnacco and Sisak plants. The idea behind the "ABS Cardio-protected Company" project is that cardiac arrest can happen to anyone, and it occurs more frequently in those places where many people pass through or stay. From this point of view, the Group's plants ensure the constant presence, 24 hours a day, of people trained in the correct use of defibrillators, should the need arise.



# THE COMPANY

**“Zero Alcohol”** is an initiative implemented by the company whereby plant employees and external contractors must never have, while working within ABS premises, any alcohol or drugs in their blood at all. All workers who find themselves in a difficult situation may access recovery programmes at specialised facilities, if they want to, in full respect of their privacy, with the guarantee that they will retain their job.

Every year, as the winter season approaches, the company offers all its employees the opportunity to receive a free flu vaccine, administered directly at the internal medical centre, during working hours, under the supervision of the company doctor.

With more than 2,600,000 hours worked in the last year, there were 32 accidents among employees. On the other hand, there were five injuries to external workers, including one serious injury, which resulted in a prognosis of more than 180 days. It should be noted that this injury with serious consequences occurred to a contractor who was not an employee of ABS, but whose workplace is under the control of the organisation, and was due to a fracture.

| Work-related injuries GRI 403-9 <sup>24</sup>  |                  |                  |
|--|------------------|------------------|
|  | 2022             | 2021             |
| Total injuries while travelling to/from work (if transport is organised by the entity) | -                | -                |
| Total work-related injuries  | 32               | 19               |
| Total high-consequence work-related injuries (absence >180 days)                       | -                | -                |
| Total fatalities as a result of work-related injuries                                  | -                | -                |
| <b>Total recordable work-related injuries</b>  | <b>32</b>        | <b>19</b>        |
| Total hours worked by employees (number)   | <b>2,686,853</b> | <b>2,360,274</b> |
| Rate of recordable work-related injuries   | 11.91            | 8.05             |
| Rate of high-consequence work-related injuries   | -                | -                |
| Rate of fatalities as a result of work-related injuries                                | -                | -                |

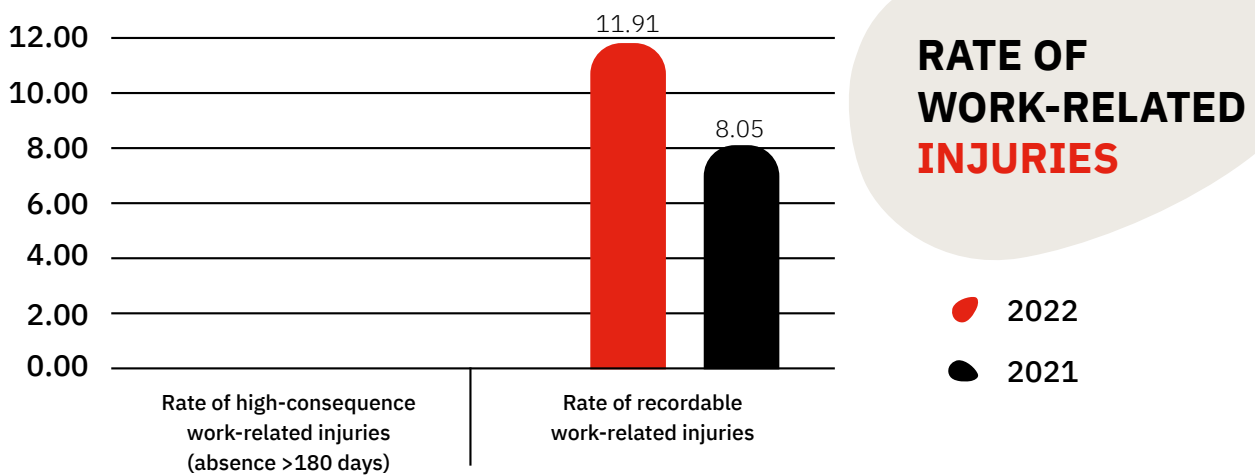
| Injuries of external workers GRI 403-9   |          | 2022     |
|--|----------|----------|
| Total injuries while travelling to/from work (if transport is organised by the entity) | -        | -        |
| Total work-related injuries  | 4        | 4        |
| Total high-consequence work-related injuries (absence >180 days)                       | 1        | 1        |
| Total fatalities as a result of work-related injuries                                  | -        | -        |
| <b>Total recordable work-related injuries</b>  | <b>5</b> | <b>5</b> |

| Type of work-related injuries GRI 403-9                    |           |           |
|--|-----------|-----------|
|  | 2022      | 2021      |
| Bruises and lacerations                                    | 17        | 13        |
| Sprains and fractures                                      | 9         | 4         |
| Muscle tears and joint pain                                | 1         | 1         |
| Others (loss of consciousness, burns, inhalation of fumes) | 5         | 1         |
| <b>Total type of work-related injuries</b>                 | <b>32</b> | <b>19</b> |

| Type of injuries of external workers GRI 403-9             |          | 2022     |
|--|----------|----------|
| Bruises and lacerations                                    | 3        | 3        |
| Sprains and fractures                                      | 1        | 1        |
| Muscle tears and joint pain                                | 1        | 1        |
| Others (loss of consciousness, burns, inhalation of fumes) | -        | -        |
| <b>Total type of injuries of external workers</b>          | <b>5</b> | <b>5</b> |

24. The data includes internal employees of the Steelmaking Division and external workers who are not employees but whose work and/or workplace is under the control of ABS where it is possible to monitor at the main production sites. The Rate of work-related injuries represents the ratio between the total number of injuries and the total number of hours worked in the same period, multiplied by 1,000,000; injuries while travelling to/from work are included only when transport was organised by the organisation. The Rate of high-consequence work-related injuries represents the ratio between the total number of injuries that have caused more than 180 days of absence and the total number of hours worked in the same period, multiplied by 1,000,000. [continue on page 85]

The rate of recordable work-related injuries of employees in 2022 is 11.91, slightly up from the previous year.



Since 2020, the Cargnac-co plant has had a **Fire Prevention Certificate**, which certifies compliance with the requirements of fire prevention and fire safety regulations, placing ABS at the top of steelmakers in Italy in terms of safety.

The Rate of fatalities as a result of work-related injury represents the ratio between the total number of fatalities and the total number of hours worked in the same period, multiplied by 1,000,000.

In the table on injuries of external workers, the rates of work-related injuries, of high-consequence work-related injuries and of fatalities as a result of work-related injury are not calculated because the data on hours worked by this category of workers is not available, as ABS has no direct control over the data provided by the employers of these workers.



# THE COMPANY

## COMMUNITY



The local community is and will always be one of the focal points of ABS's work. This translates not only into concrete actions aimed at eliminating, reducing and/or mitigating environmental impacts, or at ensuring a good work-life balance for its employees, but also into concrete support for many projects aimed at improving the quality of life within the local community. In particular, we support youth sports, cultural, social, medical and environmental projects, assessing their impact on the community.

ABS Sisak has been supporting the activities of several civil associations for years, including **SOS Djecije Selo**, which takes care of abandoned and orphaned children; the civil association **Zibel**, which organises and hosts various sporting events, promoting a he-

althy lifestyle and general care for the environment, as well as physical and psychological support for families in difficulty, children and adults; and the civil association of war veterans, founded by former employees. Moreover, a disbursement was made to finance the renovation of two kindergartens damaged by the 2021 earthquake.

A few years ago, ABS donated a pond to the city of Sisak, which is located within the park near the plant, contributing to the provision of infrastructure, labour and water supply. In spring 2022, the ABS Sisak maintenance team carried out the necessary works to restore the pond, which had also been damaged by the earthquake, to full functionality.



Finally, as far as sports sponsorships are concerned, these are addressed to the Athletic Club of Sisak.

Since the second quarter of 2021, ABS Cagnacco has started a collaboration project with the Associazione Banco Alimentare FVG ONLUS, aimed at reducing food waste. With this initiative, all surplus food from the internal canteen is collected by the company running the canteen and delivered to a charity, the Associazione Famiglie Numerose (Large Families Association), providing new value to perfectly good food.

During the last year, donations were made mainly to cultural associations and non-profit organisations, including the Cultural society of the Alpini Group of Buttrio. Support was also provided to the Cecilia Danieli Schools and Kindergartens and, in addition, a donation was also given to Educare per Crescere, a social development charity, towards the planting of trees in the Bicinico playground.

Speaking of trees, the ABS woodland which covers over 13 hectares and has over 10,000 plants, has been for years a green lung available to the whole community. Sports sponsorships are mainly focused on the local area and range from basketball to volleyball, cycling and football.

This confirms ABS's closeness to the local community and its commitment to work on the diffusion of nutritional and consumption models that are sustainable for health and the environment<sup>25</sup>.



25. According to WRAP (The Waste and Resources Action Programme) every tonne of food wasted is responsible for 4.5 tonnes of CO<sub>2</sub>.



# THE COMPANY

## COLLABORATIONS AND ASSOCIATIONS

ABS maintains strong institutional relations within the steel industry at large, and is an active member of industry associations such as Worldsteel, Eurofer, Unisider, Siderweb, and Federacciai.

ABS ACM is a benefactor of **A3TS**, Association de Traitement Thermique et de Traitement de Surface, of FVA (Forschungsvereinigung Antriebstechnik e.V.) following and participating on a case-by-case basis in research and development projects promoted by the German gear manufacturing industry and the

local group of companies of the Metz economic and academic campus “club Metz Technopole”.

ACM has developed active collaborations with several working groups over the years, including the dilatometry working group with the aim of sharing best practices and standardising techniques using the dilatometer; with the UltraSound (US) working group, which brings together users of ultrasonic immersion test tanks who try to standardise the techniques used for the meso-cleaning of steel; and with CETIM (Centre Technique des Industries Mécaniques) with the aim of collaborating with French forging companies to better predict the distortion of forged and heat-treated parts in order to reduce rejects due to high distortion.

ACM has collaborated since its creation with **ENSAM** (French Engineering School of Arts & Crafts) through doctoral theses.

Over time, ABS Sisak established important relationships with the College for Metallurgy in Sisak and the Technical Institute with whom it is carrying out several projects with the common goal of contributing to the sustainable development of the sector, identifying the creation of skilled labour and the design of innovative solutions for the steel industry as key factors.

ABS Sisak plays an active role in the recently established Metallurgical Council formed by the Croatian Chamber of Commerce in order to undertake shared and sustainable industrial development.

ABS Cagnacco collaborates with high schools with the aim of creating opportunities for students to get closer to the world of work. In particular, during the



last year, ABS organised a series of workshops in collaboration with the students of the fifth year of the mechatronics course at the Istituto Salesiano G. Bearzi in Udine, aimed at giving today's students a concrete demonstration of the profession they will be able to carry out tomorrow thanks to the possibility of becoming part of the **ABS team**. The series of workshops held by our maintenance technicians allowed us to deepen the theoretical aspects learnt in the course of our studies through practical activities aimed at demonstrating methodologies, tools, applications and real-life interventions in the field of mechanics and maintenance.

Moreover, ABS Cargnacco organised a valuable opportunity for its technicians and the students of the ITS Alto Adriatico Foundation in Pordenone to share knowledge, skills and ideas with the students on an **innovative augmented reality project** that allows bars to be tested by means of environmentally friendly

controls, called "mobile testing".

Once again this year, ABS Cargnacco activated the **ProjectNext** developed in close synergy with the local schools. The first edition of this project was in 2017: it includes face-to-face lessons and interactive activities, as well as internships aimed at bringing new graduates closer to the world of work. The one-year programme includes theoretical and practical (on-the-job) training activities, enabling the creation of high specialised profiles.

Collaborations and research projects with local universities are also very active; innovation, sustainability and human capital were the main topics of the meeting organised by ABS with the **Associazione Laureati Ingegneria Gestionale** (Association of Management Engineering Graduates) - ALIg and the participants of the **Executive MBA at the University of Udine**.







# THE COMPANY



The **research project** developed in collaboration with the University of Udine envisages the study of the role played by emerging technologies, Internet of Things, Cloud Computing, Blockchain and the new production paradigms, Industry 4.0, Intelligent Industry, in achieving environmental sustainability goals. The research will focus on the relationship between enabling technologies, operation organisation and management and new business models. In detail, during the three-year project development period, the (inter)organisational practices associated with new green technologies will be analysed, an analysis of enabling factors, barriers, and implementation paths will be carried out, and finally, theoretical models and industry-oriented application tools will be developed.

During the last year, a collaboration was also set up with the University of Padua to finance a **PhD course**. The subject matter of the PhD is set in a circular economy perspective applied to the steel industry, seeking to optimise methods and approaches for the reuse (upcycling) of electric arc furnace slag (black slag) as a potential material for the elimination of water contaminants and as a filler for insulating polymeric materials.



## ENGINE

### HORIZON EUROPE - ZERO-DEFECT MANUFACTURING FOR GREEN TRANSITION IN EUROPE

The goal of the ENGINE project is to reduce the environmental impact and improve the competitiveness of metal product manufacturers by developing a new design and production system that integrates life cycle analysis and business decisions, reduces defects, waste and product time to market.

The project will develop a metal product design and manufacturing system applied to the marine engine supply chain with the characteristics of being “first-time-right and zero-defect”. Specifically, ENGINE aims to:

- Create a new system for the design and production of metal products
- Develop:
  - computational modelling tools for product and process design;
  - non-destructive diagnostic tools for production monitoring;
  - solutions for seamless integration of the entire supply chain;
- Search methods for “first-time-right and zero-defect” production
- Consider LCA and LCC analysis in design and business decisions
- Present a strategy for employee competence development
- Turn innovations into promising business cases

The main impact that the ENGINE project aims to achieve is to increase the competitiveness and reduce the environmental impact of

European-manufactured metal products by creating an innovative, digital, low-emission, zero-defect and zero-waste method of production.

The project will be based on a holistic approach in which production process simulation, artificial intelligence applied to real-time process monitoring, defect recognition and industrial data management will generate an integrated digital value chain.

ABS will collaborate with companies and research centres from 8 European countries: the ENGINE consortium consists of an interdisciplinary and interindustrial group of professionals from research organisations, technology providers, manufacturing companies, standardisation specialists and experts for the development, communication, dissemination and exploitation of expertise. The ENGINE project started on June 1, 2022, and will run for 36 months.





# SUPPLY CHAIN

Every day, over 400 people from external companies enter the ABS plants to support production activities, and these numbers increase to more than 1,100 during maintenance shutdowns.

These numbers explain ABS developing a structured process for monitoring its product and service suppliers, which includes regular audits of suppliers.

Suppliers and providers are selected through a clear and structured assessment process, designed to identify the best product or service, with the most favourable economic conditions, produced or delivered following ethical principles, respecting human rights and fair working conditions, reducing environmental impacts, following good and proper health and safety principles, paying attention to energy issues.

ABS does not have an actual Code of Conduct for suppliers, but requires suppliers to sign its own Code of Ethics and embrace the principles and values expressed in it. The document specifically mentions the supplier selection process, which is carried out according to principles of fairness, cost-effectiveness, quality and transparency. The assessments carried out on the supply chain allowed ABS to prepare a tool for analysing and evaluating suppliers called Vendor Rating.

Specifically, during its assessment, ABS Purchasing Department checks that the candidate has implemented formalized policies regarding environmental and social issues, anti-corruption, non-discrimination, freedom of association, and do not use forced, compulsory and/or child labour.

With regard to environmental issues, in addition to compliance with current regulations and the presen-

ce of the appropriate authorisations, suppliers are required to provide information on the presence or absence of certifications and environmental management systems, any disputes/sanctions they have incurred, and to identify the environmental benefits of projects developed in the last three years on the topics of water conservation, the circular economy and emission reduction.

Each single supplier of ABS is evaluated based on these aspects, and, if the assessment reveals non-conformities, the supplier is requested to rectify them in order to remain on the approved suppliers' list. Over the past two years, only one supplier was asked to improve one or more significant environmental aspects.

New suppliers assessed for social and environmental aspects were, for the ABS Cargnacco site, 74% of the total of new suppliers in the 2021/2022 fi-





**ABS contributes to the economic development of the region and local communities by favouring local suppliers wherever possible.**



# SUPPLY CHAIN

nancial year, while they accounted for 54% in the 2020/2021 financial year.

In order to improve our impact in terms of sustainability, a project was started during the last financial year to structure an increasingly sustainable supply chain. At ABS, we believe we can positively influence our value chain throughout the life cycle of our products, and the sustainability of the supply chain is increasingly important to maintain our brand reputation, ensuring business continuity and managing operating costs.

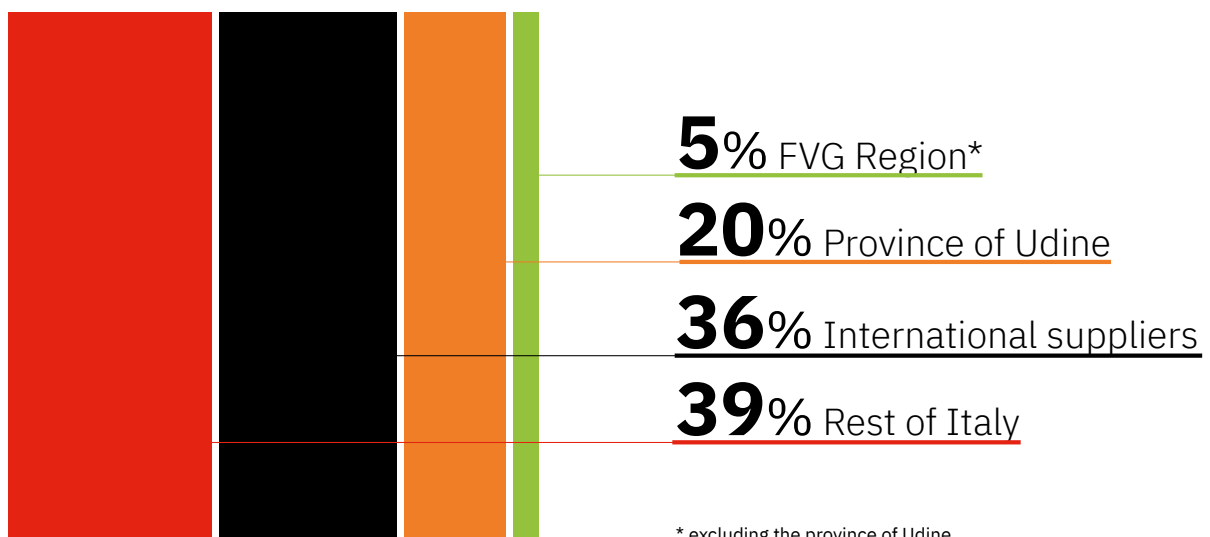
For this reason, it was decided to start with an in-depth study of the information already held by the relevant department, with the ultimate goal of being able to create a system to assess and monitor the social and environmental impact of our main suppliers. The project will develop over the next financial year to identify KPIs in line with our sustainability strategy that will complement the supplier assessment metrics already systematised.

During the year, the project of evaluating suppliers according to Safety criteria continued, classifying them according to the occupational health and sa-

fety performance related to their activities in ABS. The goals are to bring ABS partners into line and support them in adopting safe practices, organisation and behaviour, similar to what we do in our own Company.

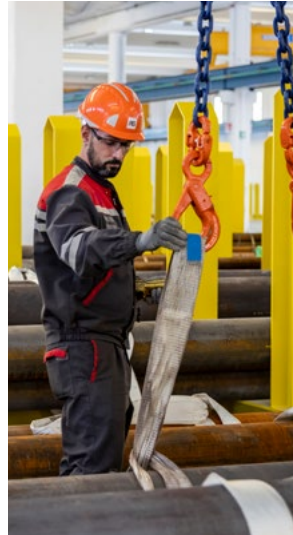
ABS invests in a local supply chain; during the last year, the procurement of products and services from local suppliers in the province of Udine alone amounted to 20% of the overall procurement budget. On average, more than half of the purchases made by the Italian branch come from suppliers located in Italy, while this percentage rises to 70% for the Croatian branch.

ABS contributes to the economic development of the region and local communities by favouring local suppliers wherever possible. In fact, about 25% of our total purchases<sup>26</sup> are channelled through regional partners, of which more than 20% to local partners. ABS is a key community member to move forward in the direction of sustainable economic and industrial development of the region.



26. The data refers only to the parent company, ABS Cargnacco. Note that among the suppliers, the figures for ABS Sisak have been excluded because they are intercompany items.





All metals subject to Conflict Minerals Regulations used in the production process are managed in accordance with ABS's mineral procurement policy in compliance with the IPC-1755 Standard.

ABS is also required to collect and assess information on the properties of chemicals and on the hazards arising from them according to the REACH regulation, in order to improve the protection of human health and the environment. Moreover, in 2021, a spe-

cific training activity was started with regard to the EU Directive restricting the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU, ROHS), with regard to due diligence for EU importers of minerals from conflict-affected and high-risk areas (Regulation (EU) 2017/821 (D)), and with regard to the US Conflict Minerals Regulations (US Dodd-Frank Act - Section 1502).

## ACM. INDEPENDENCE GUARANTEED EVEN IN THE SUPPLY CHAIN

The desire to enhance ACM's independence and credibility also has implications in the autonomy with which it defines its supply chain. The management method adopted is based on a 7-criteria supplier evaluation and each order/delivery is also evaluated on the same criteria. Once a year, the results of these evaluations are analysed and, if necessary, corrective actions are decided and implemented. Moreover, ACM whenever possible develops a local supply chain, increasing the positive economic impact on the local area.

- **Technical support**
- **Price**
- **Delivery time**
- **Ecological responsibility**
- **Training and technical support**
- **Quality**
- **After-sales services**



# SUSTAINABILITY TARGETS

## FOCUS VISION DIGITAL GREEN

“We strive to be the partner of choice, while we work to secure valuable solutions using state-of-the-art processes and technologies for a sustainable progress”,

is the VISION that ABS pursues in its daily activities. To achieve this goal, the sustainable development strategy thus becomes an integral part of the corporate strategy and a competitive lever for ABS business development. Structured along its three fundamental axes and built on the material topics perceived as relevant by the company and stakeholders, it integrates and defines its industrial strategy accordingly.

Based on these considerations, ABS built its development plan on four pillars:

- ENVIRONMENT: reduction of environmental impact, development of the circular economy, valorisation of scrap (including low-quality scrap) and residual metals, reduction of road transport.
- PEOPLE: streamlining and digitalisation of processes by increasing the skills of resources and maximising safety.
- VOLUME: increasing volumes with the aim of reducing the impact of fixed costs by increasing competitiveness.
- VALUE: focus on product verticalisation and increase in value.

The strategic plan, called *VISION DIGITAL GREEN*, envisages the implementation in ABS Cagnacco of an investment plan with interventions amounting to over 650 million euro in the five-year period from 2022/23 to 2026/27.

Development interventions that can be grouped into the following macro-categories:

- Digital Green Plant
- Production line capacity development
- Verticalisation and downstream
- Sustainability and the circular economy
- Logistics and site expansion

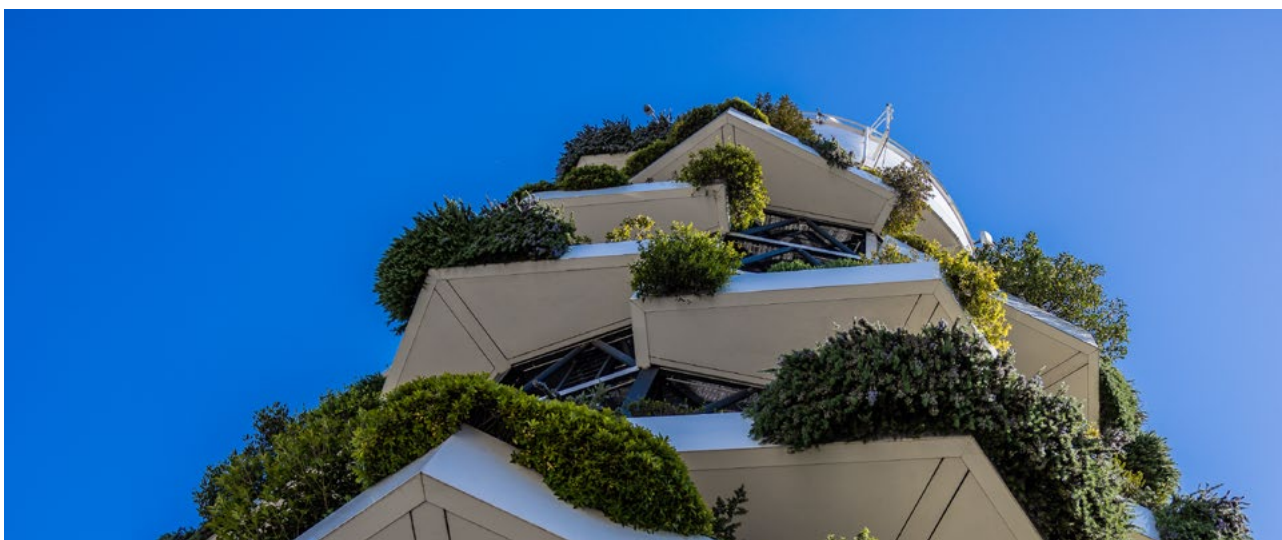
will allow ABS to increase its presence in its markets from a shipment volume of approximately 1,300,00 tonnes per year to 2,150,000 tonnes per year.

The most significant interventions are:

- commissioning of the new *grinding ball production plant, which has very low emissions as it is equipped with an induction reheating furnace*;
- installation of the innovative Digital Green Plant, which, thanks to the integration of the group's most advanced and innovative technologies, will ensure increased liquid steel capacity, lower environmental impact and more efficient transformation;
- revamping of the “Luna” line with the *Luna 650ktpy* project that will eliminate bottlenecks in the bar control and conditioning lines, increasing plant production;
- opening of new Bar *Distribution Centres* (ABS Service) in the vicinity of target markets;
- expansion of the internal logistics network with the creation of a *rail loop* serving the areas of raw material reception and product shipment;

Specifically, the following projects can be mentioned from the “*Sustainability and Circular Economy*” category:

- CO<sub>2</sub> and heat (otherwise lost) capture and recovery plant for the production of non-hazardous chemical compounds.



- New ferrous scrap preparation area that envisages:
  - installation of scrap size reduction equipment, which will allow a decrease in electricity consumption related to the electric furnace melting process and SCOPE2 emissions by approximately 5%
  - recovery and increase in value of non-ferrous metals (Cu, Al, Brass)
  - cleaning from aggregates
- Upgrading of the steelworks slag treatment area (Global Blue):
  - New production plants for certified Ecogavel Black and Ecogavel White products (substitutes for quarry aggregates)
  - Installation of ladle slag agglomeration systems for recovery in an electric furnace in place of CaO, resulting in lower CO<sub>2</sub> emissions related to lime production (SCOPE3 or upstream emissions)
- New recovery and enhancement area for materials otherwise destined for waste.
- Installation of photovoltaic panels totalling about 20MW.
- Installation of heat recovery systems from the cooling systems of electric furnaces with the aim of reusing it, thus reducing the energy impact of ABS and the CO<sub>2</sub> emissions related to the generation of this energy.

Vision Digital Green is an important step on the path of continuous search for opportunities to improve our own processes, but first and foremost to reduce our own environmental impact by working together with our people, our region and our customers.



# SUSTAINABILITY TARGETS

## ● 2022-23 TARGET

### CERTIFICATIONS

**ISO 27001:** Through independent and qualified third-party auditing, ABS aims to demonstrate that information security is managed in line with international best practice and business goals.

**ISO 45001 in ACM:** On the wake of the two production plants, ACM also intends to strengthen its management and organisational approach aimed at adopting a business culture that focuses on occupational health and safety. This not only as regulatory compliance, but as an essential part of work processes and as an opportunity for overall improvement and growth in business performance.

### ENERGY EFFICIENCY AND EMISSION REDUCTION

**New Danieli Digital Melter (DDM) furnace in ABS Sisak:** with the aim of making ABS Sisak steel production less impactful in terms of environment and energy, an innovative melting furnace that implements the latest technologies in terms of energy consumption, climate-changing gas emissions, safety and respect for the environment will be installed. The DDM will take advantage of the Q-ONE system already in place at the site and will also allow for increased production and improved product competitiveness and quality.

**Energy from renewable sources:** with the aim of increasing more and more the use of energy produced from renewable sources and decreasing its indirect emissions of climate-changing gases, ABS SpA will begin the project of installing photovoltaic panels on the roofs of the Cargnacco plant. During the financial year, panels will be installed to produce about **5.3 MW**.

### PRODUCTS WITH LOW ENVIRONMENTAL IMPACT

**Plant for the production of grinding balls:** as part of

its strategy of verticalisation and sustainability of its products, ABS will produce the first finished product in its history, namely steel balls for mining mills. “From scrap to balls” is the concept behind this product: as they are produced by electric arc furnace and through induction furnaces, ABS will produce balls with a lower carbon footprint, consequently contributing to lowering the carbon footprint of the mining industry.

### SAFETY – ZERO ACCIDENTS

**DUVRI (Documento unico per la valutazione dei rischi da interferenze, Single document for the assessment of interference risks) digitalisation and training course:** initially at the Cargnacco site, the digital DUVRI will be implemented; it will enable the digital management of all steps related to the coordination of contract works. Moreover, the company’s e-learning platform will be launched and the video course for external personnel will be realised with recording of attendance, learning verification and outcome in digital form.

## ● 2-5 YEAR TARGET

### CERTIFICATIONS

**ISO 22301:** see in this regard the paragraph “Business Continuity”.

**ISO 14067:** the LCA study (see in this regard the focus An ever lighter steel on the environment - The LCA Project) carried out by ABS becomes the starting point for activities related to future process certification for the quantification of greenhouse gas emissions according to the requirements of the standard.

**EMAS:** as part of its sustainability strategy, ABS intends to comply with the EU EMAS regulation in order to certify the ongoing assessment and reduction of environmental impacts and the continuous improvement of environmental perfor-



mance and to make this information publicly available through the environmental statement.

## ENERGY EFFICIENCY AND EMISSION REDUCTION

**Digital Green Steel:** see in this regard previous focus.

**Energy from renewable sources:** as part of its strategy for the production of energy from renewable sources, ABS intends to extend the area covered by photovoltaic panels to produce an additional 10 MW.

**Implementation of technologies to reduce gas consumption:** ABS will continue its plan of action to reduce methane gas consumption, with the aim of reducing it by a total of 10%.

**Increase in rail transport:** see in this regard Logistics and Transport. ABS intends to reduce emissions of all kinds developed by incoming and outgoing material transports as well as those generated by in-house transport. For this reason, the Cagnacco plant will be equipped with an internal railway network that will enable the site's old and new plants to be connected in a way that has less impact on emissions into the atmosphere.

**Implementation of sound-absorbing barriers:** ABS, in order to reduce its impact on the territory, will continue with the installation of sound-absorbing barriers on the ABS SpA site in order to limit the noise and vibrations generated by rail transfers.

## CIRCULAR ECONOMY

**Maximising internal reuse of waste:** as part of its Vision Digital Green Plant programme, ABS will maximise the recovery and reuse of those resources now considered waste. The programme will also plan to increase the amount of products made from steel slag in order to increase their applications and enhancement, to make better use of lower quality scrap and its waste.

## SAFETY – ZERO ACCIDENTS

**Digitalisation of procedures and information:** initially at the Cagnacco site, the Safety procedural system and information on Occupational Health and Safety of activities carried out in confined spaces and at heights will be digitalised. The latter part will be enabled by the development of webAPPs capable of reading QRcodes containing the applicable information and documentation.

## 2030 TARGET

Toward Net Zero (**Reducing emissions**)

Scenarios limiting global warming to 1.5°C achieve Net-zero CO<sub>2</sub> Emissions around 2050. There are many transition trajectories towards achieving a reduction in emissions that lead towards that goal. In this perspective, ABS has set the ambitious target of reducing its SCOPO1 and SCOPO2 emissions by 30% by 2030<sup>27</sup>, the first step in the strategy that will take ABS towards Net-Zero by 2050. This target is in line with the group's decarbonisation strategy, whose objectives have been validated by the Science-Based Target Initiative (SBTi).

27. compared to SCOPO1 and SCOPO2 emissions in 2017



# GRI CONTENT INDEX

This material refers to the following GRI disclosures:

## GRI KPI CONTENT INDEX

| GRI ID                        | DISCLOSURE                                 | YEAR | REFERENCE                      | Pag          | Legis. Decree<br>254/2016 | NOTES |
|-------------------------------|--|------|--------------------------------|--------------|---------------------------|-------|
| 102                           | General disclosure                         | 2016 |                                |              |                           |       |
| <b>ORGANIZATIONAL PROFILE</b> |  |      |                                |              |                           |       |
| 102-1                         | Name of the organization                   | 2016 | About us                       | 10           | -                         |       |
| 102-2                         | Activities, brands, products, and services | 2016 | Products                       | 14 - 16      | -                         |       |
| 102-3                         | Location of headquarters                   | 2016 | About us                       | 10           | -                         |       |
| 102-4                         | Location of operations                     | 2016 | About us                       | 10 - 12      | -                         |       |
| 102-5                         | Ownership and legal form                   | 2016 | About us                       | 10           | -                         |       |
| 102-6                         | Market Served                              | 2016 | Products - Markets             | 14 - 18      | -                         |       |
| 102-8                         | Information on employees and other workers | 2016 | People - GRI Table of Contents | 76 - 77, 100 | -                         |       |

**Total number of employees by employment contract (permanent and temporary), by gender and by region.**

| GRI 102-8      | 2022         |            |              | 2021         |            |              |
|----------------|--------------|------------|--------------|--------------|------------|--------------|
|                | Males        | Females    | Total        | Males        | Females    | Total        |
| <b>Italy</b>   | <b>1,220</b> | <b>71</b>  | <b>1,291</b> | <b>1,149</b> | <b>73</b>  | <b>1,222</b> |
| Temporary      | 102          | 6          | 108          | 93           | 8          | 101          |
| Permanent      | 1,118        | 65         | 1,183        | 1,056        | 65         | 1,121        |
| <b>Germany</b> | <b>4</b>     | <b>-</b>   | <b>4</b>     | <b>4</b>     | <b>-</b>   | <b>4</b>     |
| Temporary      | -            | -          | -            | -            | -          | -            |
| Permanent      | 4            | -          | 4            | 4            | -          | 4            |
| <b>France</b>  | <b>14</b>    | <b>5</b>   | <b>19</b>    | <b>14</b>    | <b>6</b>   | <b>20</b>    |
| Temporary      | -            | 1          | 1            | 3            | 1          | 4            |
| Permanent      | 14           | 4          | 18           | 11           | 5          | 16           |
| <b>Spain</b>   | <b>-</b>     | <b>1</b>   | <b>1</b>     | <b>-</b>     | <b>1</b>   | <b>1</b>     |
| Temporary      | -            | -          | -            | -            | -          | -            |
| Permanent      | -            | 1          | 1            | -            | 1          | 1            |
| <b>Sweden</b>  | <b>1</b>     | <b>-</b>   | <b>1</b>     | <b>1</b>     | <b>-</b>   | <b>1</b>     |
| Temporary      | -            | -          | -            | -            | -          | -            |
| Permanent      | 1            | -          | 1            | 1            | -          | 1            |
| <b>Croatia</b> | <b>144</b>   | <b>31</b>  | <b>175</b>   | <b>136</b>   | <b>24</b>  | <b>160</b>   |
| Temporary      | 28           | 9          | 37           | 38           | 4          | 42           |
| Permanent      | 116          | 22         | 138          | 98           | 20         | 118          |
| <b>TOTAL</b>   | <b>1,383</b> | <b>108</b> | <b>1,491</b> | <b>1,304</b> | <b>104</b> | <b>1,408</b> |

| GRI ID                        | DISCLOSURE   | YEAR | REFERENCE   | Pag            | Legis. Decree<br>254/2016 | NOTES   |
|-------------------------------|--|------|---|----------------|---------------------------|---|
| 102-9                         | Supply chain   | 2016 | Supply Chain  | 92 - 95        | -                         |   |
| 102-10                        | Significant changes to the organization and its supply chain | 2016 | GRI content index   | 101            | -                         | There are no significant changes in the corporate boundary  |
| 102-11                        | Precautionary Principle or approach                          | 2016 | Our sustainability strategy, Our approach to risk               | 23, 26         | -                         | For further information on the risks related to Climate Change as well as the Group policy adopted, please refer to the Danieli Group Annual Report (section "Management of business risks"). |
| 102-12                        | External initiatives   | 2016 | Respect for human rights, Stakeholder, Material topics and SDGs | 40, 43 - 45    | -                         |   |
| 102-13                        | Membership of associations                                   | 2016 | Collaborations and associations                                 | 88 - 91        | -                         |   |
| <b>STRATEGY</b>               |  |      |   |                |                           |   |
| 102-14                        | Statement from senior decision maker                         | 2016 | Letters to the stakeholders                                     | 03 - 04        | -                         |   |
| <b>ETHICS AND INTEGRITY</b>   |  |      |   |                |                           |   |
| 102-16                        | Values, principles, standards, and norms of behavior         | 2016 | About us, Ethics  | 8, 24, 40 - 42 | -                         |   |
| <b>GOVERNANCE</b>             |  |      |   |                |                           |   |
| 102-18                        | Governance structure   | 2016 | Governance  | 37 - 38        | -                         |   |
| <b>STAKEHOLDER ENGAGEMENT</b> |  |      |   |                |                           |   |
| 102-40                        | List of stakeholder groups                                   | 2016 | Stakeholder, Material topics and SDGs                           | 43             | -                         |   |
| 102-41                        | Collective bargaining agreements                             | 2016 | Respect for human rights  | 40 - 42        | -                         |   |
| 102-42                        | Identifying and selecting stakeholders                       | 2016 | Stakeholder, Material topics and SDGs                           | 43             | -                         |   |
| 102-43                        | Approach to stakeholder engagement                           | 2016 | Stakeholder, Material topics and SDGs                           | 43             | -                         |   |
| 102-44                        | Key topics and concerns raised                               | 2016 | Stakeholder, Material topics and SDGs                           | 43             | -                         |   |
| <b>REPORTING PRACTICE</b>     |  |      |   |                |                           |   |
| 102-47                        | List of material topics                                      | 2016 | Stakeholder, Material topics and SDGs                           | 43 - 45        | -                         |   |
| 102-48                        | Restatements of informations                                 | 2016 | Methodological note   | 109 - 110      | -                         |   |
| 102-49                        | Changes in reporting   | 2016 | Methodological note   | 109 - 110      | -                         |   |
| 102-50                        | Reporting period   | 2016 | Methodological note   | 109 - 110      | -                         |   |
| 102-51                        | Date of most recent report                                   | 2016 | About us  | 08             | -                         |   |
| 102-52                        | Reporting cycle  | 2016 | Methodological note   | 109 - 110      | -                         |   |
| 102-53                        | Contact point for questions regarding the report             | 2016 | Methodological note   | 109 - 110      | -                         |   |
| 102-54                        | Claims of reporting in accordance with the GRI Standards     | 2016 | Methodological note   | 109 - 110      | -                         |   |
| 102-55                        | GRI content index  | 2016 | GRI content index   | 100 - 107      | -                         |   |



# GRI CONTENT INDEX

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|--------------------------------|---|-------------|---|----------------|---------------------------|-------|
| 102-56                         | External assurance  | 2016        | Report of the independent auditors        | 111 - 114      | -                         |       |
| <b>TOPIC SPECIFIC STANDARD</b> |   |             |   |                |                           |       |
| <b>200</b>                     | <b>ECONOMIC SERIES</b>  |             |   |                |                           |       |
| <b>201</b>                     | <b>Economic Performance</b>   | <b>2016</b> | <b>Generated and Distributed Value</b>    | <b>46</b>      | <b>-</b>                  |       |
| 103-1 a.                       | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)          | 108            | -                         |       |
| 103-2                          | The management approach and its components                                      | 2016        | Generated and Distributed Value           | 46             | -                         |       |
| 103-3                          | Evaluation of the management approach   | 2016        | Generated and Distributed Value           | 46             | -                         |       |
| 201-1                          | Direct economic value generated and distributed                                 | 2016        | Generated and Distributed Value           | 46             | -                         |       |
| <b>204</b>                     | <b>Procurement Practices</b>  | <b>2016</b> | <b>Supply Chain</b>                       | <b>92 - 95</b> | <b>-</b>                  |       |
| 103-1 a.                       | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)          | 108            | -                         |       |
| 103-2                          | The management approach and its components                                      | 2016        | Supply Chain                              | 92 - 95        | -                         |       |
| 103-3                          | Evaluation of the management approach   | 2016        | Supply Chain                              | 92 - 95        | -                         |       |
| 204-1                          | Proportion of spending on local suppliers                                       | 2016        | Supply Chain                              | 94             | -                         |       |
| <b>205</b>                     | <b>Anti-corruption</b>  | <b>2016</b> | <b>Ethics</b>                             | <b>40 - 42</b> | <b>-</b>                  |       |
| 103-1 a.                       | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)          | 108            | -                         |       |
| 103-2                          | The management approach and its components                                      | 2016        | Ethics                                    | 40 - 42        | -                         |       |
| 103-3                          | Evaluation of the management approach   | 2016        | Ethics                                    | 40 - 42        | -                         |       |
| 205-3                          | Confirmed incidents of corruption and actions taken                             | 2016        | Violations                                | 42             | -                         |       |
| <b>206</b>                     | <b>Anti-competitive Behavior</b>  | <b>2016</b> | <b>Etica</b>                              | <b>40 - 42</b> | <b>-</b>                  |       |
| 103-1 a.                       | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)          | 108            | -                         |       |
| 103-2                          | The management approach and its components                                      | 2016        | Ethics                                    | 40 - 42        | -                         |       |
| 103-3                          | Evaluation of the management approach   | 2016        | Ethics                                    | 40 - 42        | -                         |       |
| 206-1                          | Legal actions for anti-competitive behavior, anti-trust, and monopoly practices | 2016        | Violations                                | 42             | -                         |       |
| <b>300</b>                     | <b>ENVIRONMENTAL SERIES</b>   |             |   |                |                           |       |
| <b>301</b>                     | <b>Materials</b>  | <b>2016</b> | <b>Raw materials and circular economy</b> | <b>50 - 52</b> | <b>-</b>                  |       |
| 103-1 a.                       | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)          | 108            | -                         |       |



| GRI ID     | DISCLOSURE  | YEAR        | REFERENCE                               | Pag                     | Legis. Decree<br>254/2016 | NOTES  |
|------------|---|-------------|---|-------------------------|---------------------------|--|
| 103-2      | The management approach and its components                                      | 2016        | Raw materials and circular economy      | 50 - 52                 | -                         |  |
| 103-3      | Evaluation of the management approach   | 2016        | Raw materials and circular economy      | 50 - 52                 | -                         |  |
| 301-1      | Materials used by weight or volume  | 2016        | Raw materials and circular economy      | 50 - 51                 | -                         |  |
| <b>302</b> | <b>Energy</b>   | <b>2016</b> | <b>Energy</b>                           | <b>53 - 56</b>          | <b>-</b>                  |  |
| 103-1      | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)        | 108                     | -                         |  |
| 103-2      | The management approach and its components                                      | 2016        | Energy                                  | 53 - 56                 | -                         |  |
| 103-3      | Evaluation of the management approach   | 2016        | Energy                                  | 53 - 56                 | -                         |  |
| 302-1      | Energy consumption within the organization                                      | 2016        | Energy                                  | 56                      | -                         |  |
| <b>303</b> | <b>Water and Effluents</b>  | <b>2018</b> | <b>Water withdrawals and discharges</b> | <b>63 - 65</b>          | <b>-</b>                  |  |
| 103-1 a.   | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)        | 108                     | -                         |  |
| 103-2      | The management approach and its components                                      | 2016        | Water withdrawals and discharges        | 63 - 65                 | -                         |  |
| 103-3      | Evaluation of the management approach   | 2016        | Water withdrawals and discharges        | 63 - 65                 | -                         |  |
| 303-1      | Interactions with water as a shared resource                                    | 2018        | Water withdrawals and discharges        | 63 - 65                 | -                         |  |
| 303-2      | Management of water discharge-related impacts                                   | 2018        | Water withdrawals and discharges        | 63 - 65                 | -                         | The water discharges refer only to the ABS S.p.A. offices and ABS Sisak d.o.o. |
| 303-3      | Water withdrawal  | 2018        | Water withdrawals and discharges        | 64                      | -                         |  |
| <b>305</b> | <b>Emissions</b>  | <b>2016</b> | <b>Climate - Air</b>                    | <b>57 - 58, 62 - 63</b> | <b>-</b>                  |  |
| 103-1 a.   | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)        | 108                     | -                         |  |
| 103-2      | The management approach and its components                                      | 2016        | Climate - Air                           | 57 - 58, 62 - 63        | -                         |  |
| 103-3      | Evaluation of the management approach   | 2016        | Climate - Air                           | 57 - 58, 62 - 63        | -                         |  |
| 305-1      | GHG direct emission Scope 1   | 2016        | Climate                                 | 57 - 58                 | -                         |  |
| 305-2      | Energy indirect (Scope 2) GHG emissions   | 2016        | Climate                                 | 57 - 58                 | -                         |  |
| 305-7      | Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions | 2016        | Air                                     | 63                      | -                         |  |
| <b>306</b> | <b>Waste</b>  | <b>2020</b> | <b>Waste and circular economy</b>       | <b>66 - 69</b>          | <b>-</b>                  |  |
| 103-1 a.   | Explanation of the material topic and its Boundary                              | 2016        | Correspondence table (NFS - GRI)        | 108                     | -                         |  |
| 103-2      | The management approach and its components                                      | 2016        | Waste and circular economy              | 66 - 69                 | -                         |  |
| 103-3      | Evaluation of the management approach   | 2016        | Waste and circular economy              | 66 - 69                 | -                         |  |



# GRI CONTENT INDEX

| GRI ID     | DISCLOSURE  | YEAR        | REFERENCE                        | Pag            | Legis. Decree<br>254/2016 | NOTES |
|------------|---|-------------|----------------------------------|----------------|---------------------------|-------|
| 306-1      | Waste generation and significant waste-related impacts        | 2020        | Waste and circular economy       | 66 - 69        | -                         |       |
| 306-2      | Management of significant waste-related impacts               | 2020        | Waste and circular economy       | 66 - 69        | -                         |       |
| 306-3      | Waste generated   | 2020        | Waste and circular economy       | 68             | -                         |       |
| 306-4      | Waste diverted from disposal                                  | 2020        | Waste and circular economy       | 66 - 67        | -                         |       |
| 306-5      | Waste directed to disposal                                    | 2020        | Waste and circular economy       | 66 - 67        | -                         |       |
| <b>308</b> | <b>Supplier Environmental Assessment</b>                      | <b>2016</b> | <b>Supply Chain</b>              | <b>92 - 95</b> | <b>-</b>                  |       |
| 103-1 a.   | Explanation of the material topic and its Boundary            | 2016        | Correspondence table (NFS - GRI) | 108            | -                         |       |
| 103-2      | The management approach and its components                    | 2016        | Supply Chain                     | 92 - 95        | -                         |       |
| 103-3      | Evaluation of the management approach                         | 2016        | Supply Chain                     | 92 - 95        | -                         |       |
| 308-1      | New suppliers that were screened using environmental criteria | 2016        | Supply Chain                     | 92, 94         | -                         |       |
| <b>400</b> | <b>SOCIAL SERIES</b>  |             |                                  |                |                           |       |
| <b>401</b> | <b>Employment</b>   | <b>2016</b> | <b>People</b>                    | <b>74 - 82</b> | <b>-</b>                  |       |
| 103-1 a.   | Explanation of the material topic and its Boundary            | 2016        | Correspondence table (NFS - GRI) | 108            | -                         |       |
| 103-2      | The management approach and its components                    | 2016        | People                           | 74 - 82        | -                         |       |
| 103-3      | Evaluation of the management approach                         | 2016        | People                           | 74 - 82        | -                         |       |
| 401-1      | New employee hires and employee turnover                      | 2016        | People - GRI Table of Contents   | 78, 104 - 106  | -                         |       |
| 401-3 a, e | Parental leave  | 2016        | People                           | 80             | -                         |       |

**Total number and rate of new employees hires during the reporting period, by age group, gender and region.**

| GRI 401-1      | 2022       |               |           |               |            | 2021       |               |           |               |            |
|----------------|------------|---------------|-----------|---------------|------------|------------|---------------|-----------|---------------|------------|
|                | Males      | %             | Females   | %             | Total      | Males      | %             | Females   | %             | Total      |
| <b>Italy</b>   | <b>162</b> | <b>13.28%</b> | <b>10</b> | <b>14.08%</b> | <b>172</b> | <b>132</b> | <b>11.49%</b> | <b>16</b> | <b>21.92%</b> | <b>148</b> |
| < 30 y.o.      | 78         | 41%           | 3         | 33%           | 81         | 84         | 51%           | 6         | 46%           | 90         |
| 30 - 50 y.o.   | 81         | 13%           | 7         | 13%           | 88         | 44         | 7%            | 8         | 15%           | 52         |
| > 50 y.o.      | 3          | 1%            | -         | -             | 3          | 4          | 1%            | 2         | 29%           | 6          |
| <b>Germany</b> | <b>1</b>   | <b>25%</b>    | <b>-</b>  | <b>-</b>      | <b>1</b>   | <b>1</b>   | <b>25%</b>    | <b>-</b>  | <b>-</b>      | <b>1</b>   |
| < 30 y.o.      | -          | -             | -         | -             | -          | -          | -             | -         | -             | -          |
| 30 - 50 y.o.   | 1          | 50%           | -         | -             | 1          | 1          | 50%           | -         | -             | 1          |
| > 50 y.o.      | -          | -             | -         | -             | -          | -          | -             | -         | -             | -          |

| GRI 401-1      | 2022       |               |           |                |            | 2021       |               |           |               |            |
|----------------|------------|---------------|-----------|----------------|------------|------------|---------------|-----------|---------------|------------|
|                | Males      | %             | Females   | %              | Total      | Males      | %             | Females   | %             | Total      |
| <b>France</b>  | <b>1</b>   | <b>7.14%</b>  | <b>1</b>  | <b>20%</b>     | <b>2</b>   | <b>1</b>   | <b>7.14%</b>  | <b>-</b>  | <b>-</b>      | <b>1</b>   |
| < 30 y.o.      | 1          | 33%           | 1         | 100%           | 2          | -          | -             | -         | -             | -          |
| 30 - 50 y.o.   | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| > 50 y.o.      | -          | -             | -         | -              | -          | 1          | 50%           | -         | -             | -          |
| <b>Spain</b>   | <b>-</b>   | <b>-</b>      | <b>-</b>  | <b>-</b>       | <b>-</b>   | <b>-</b>   | <b>-</b>      | <b>-</b>  | <b>-</b>      | <b>-</b>   |
| < 30 y.o.      | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| 30 - 50 y.o.   | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| > 50 y.o.      | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| <b>Sweden</b>  | <b>-</b>   | <b>-</b>      | <b>-</b>  | <b>-</b>       | <b>-</b>   | <b>-</b>   | <b>-</b>      | <b>-</b>  | <b>-</b>      | <b>-</b>   |
| < 30 y.o.      | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| 30 - 50 y.o.   | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| > 50 y.o.      | -          | -             | -         | -              | -          | -          | -             | -         | -             | -          |
| <b>Croatia</b> | <b>39</b>  | <b>27.08%</b> | <b>9</b>  | <b>29.03 %</b> | <b>48</b>  | <b>57</b>  | <b>41.91%</b> | <b>5</b>  | <b>20.83%</b> | <b>62</b>  |
| < 30 y.o.      | 15         | 43%           | 5         | 63%            | 20         | 26         | 70%           | 1         | 33%           | 27         |
| 30 - 50 y.o.   | 19         | 26%           | 4         | 36%            | 23         | 24         | 38%           | 2         | 18%           | 26         |
| > 50 y.o.      | 5          | 14%           | -         | -              | 5          | 7          | 19%           | 2         | 20%           | 9          |
| <b>TOTAL</b>   | <b>203</b> | <b>14.68%</b> | <b>20</b> | <b>18.52%</b>  | <b>223</b> | <b>191</b> | <b>14.65%</b> | <b>21</b> | <b>20.19%</b> | <b>212</b> |

**Total number and rate of employees turnover during the reporting period, by age group, gender and region.**

| GRI 401-1          | 2022      |               |           |               |            | 2021      |               |          |               |           |
|--------------------|-----------|---------------|-----------|---------------|------------|-----------|---------------|----------|---------------|-----------|
|                    | Males     | %             | Females   | %             | Total      | Males     | %             | Females  | %             | Total     |
| <b>Italy</b>       | <b>94</b> | <b>7.70%</b>  | <b>13</b> | <b>18.31%</b> | <b>107</b> | <b>80</b> | <b>6.96%</b>  | <b>9</b> | <b>12.33%</b> | <b>86</b> |
| < 30 y.o.          | 22        | 12%           | 2         | 22%           | 24         | 14        | 9%            | 1        | 8%            | 15        |
| 30 - 50 y.o.       | 41        | 7%            | 9         | 16%           | 50         | 36        | 6%            | 7        | 13%           | 43        |
| > 50 y.o.          | 31        | 7%            | 2         | 29%           | 33         | 30        | 8%            | 1        | 14%           | 31        |
| <b>Germany</b>     | <b>1</b>  | <b>25%</b>    | <b>-</b>  | <b>-</b>      | <b>1</b>   | <b>1</b>  | <b>25%</b>    | <b>-</b> | <b>-</b>      | <b>1</b>  |
| < 30 y.o.          | -         | -             | -         | -             | -          | -         | -             | -        | -             | -         |
| 30 - 50 y.o.       | 1         | 50%           | -         | -             | 1          | 1         | 50%           | -        | -             | 1         |
| > 50 y.o.          | -         | -             | -         | -             | -          | -         | -             | -        | -             | -         |
| <b>France</b>      | <b>2</b>  | <b>14.29%</b> | <b>1</b>  | <b>20%</b>    | <b>3</b>   | <b>4</b>  | <b>28.57%</b> | <b>-</b> | <b>-</b>      | <b>4</b>  |
| < 30 y.o.          | 1         | 33%           | -         | -             | 1          | 3         | 100%          | -        | -             | 3         |
| 30 - 50 y.o.       | -         | -             | 1         | 50%           | 1          | 1         | 11%           | -        | -             | 1         |
| > 50 y.o.          | 1         | 100%          | -         | -             | 1          | -         | -             | -        | -             | -         |
| <b>Spain</b>       | <b>-</b>  | <b>-</b>      | <b>-</b>  | <b>-</b>      | <b>-</b>   | <b>-</b>  | <b>-</b>      | <b>1</b> | <b>100%</b>   | <b>1</b>  |
| < 30 y.o.          | -         | -             | -         | -             | -          | -         | -             | -        | -             | -         |
| 30 - 50 y.o.       | -         | -             | -         | -             | -          | -         | -             | -        | -             | -         |
| > 50 y.o.          | -         | -             | -         | -             | -          | -         | -             | 1        | 100%          | 1         |
| <b>Scandinavia</b> | <b>-</b>  | <b>-</b>      | <b>-</b>  | <b>-</b>      | <b>-</b>   | <b>-</b>  | <b>-</b>      | <b>-</b> | <b>-</b>      | <b>-</b>  |
| < 30 y.o.          | -         | -             | -         | -             | -          | -         | -             | -        | -             | -         |



# GRI CONTENT INDEX

| GRI 401-1      | 2022       |               |           |               |            | 2021       |               |           |               |            |
|----------------|------------|---------------|-----------|---------------|------------|------------|---------------|-----------|---------------|------------|
|                | Males      | %             | Females   | %             | Total      | Males      | %             | Females   | %             | Total      |
| 30 - 50 y.o.   | -          | -             | -         | -             | -          | -          | -             | -         | -             | -          |
| > 50 y.o.      | -          | -             | -         | -             | -          | -          | -             | -         | -             | -          |
| <b>Croatia</b> | <b>31</b>  | <b>21.53%</b> | <b>2</b>  | <b>6.45 %</b> | <b>33</b>  | <b>16</b>  | <b>11.76%</b> | <b>2</b>  | <b>8.33%</b>  | <b>18</b>  |
| < 30 y.o.      | 10         | 29%           | -         | -             | 10         | 9          | 24%           | -         | -             | 9          |
| 30 - 50 y.o.   | 12         | 17%           | 2         | 18%           | 14         | 5          | 8%            | 2         | 18%           | 7          |
| > 50 y.o.      | 9          | 24%           | -         | -             | 9          | 2          | 6%            | -         | -             | 2          |
| <b>TOTAL</b>   | <b>128</b> | <b>9%</b>     | <b>16</b> | <b>15%</b>    | <b>144</b> | <b>101</b> | <b>7.75%</b>  | <b>12</b> | <b>11.54%</b> | <b>113</b> |

| GRI ID     | DISCLOSURE  | YEAR        | REFERENCE                        | Pag            | Legis. Decree<br>254/2016 | NOTES  |
|------------|---|-------------|----------------------------------|----------------|---------------------------|--|
| <b>403</b> | <b>Occupational Health and Safety</b>   | <b>2018</b> | <b>Health and safety</b>         | <b>83 - 85</b> | <b>-</b>                  |  |
| 103-1 a.   | Explanation of the material topic and its Boundary  | 2016        | Correspondence table (NFS - GRI) | 108            | -                         |  |
| 103-2      | The management approach and its components  | 2016        | Health and safety                | 83 - 85        | -                         |  |
| 103-3      | Evaluation of the management approach   | 2016        | Health and safety                | 83 - 85        | -                         |  |
| 403-1      | Occupational health and safety management system  | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-2      | Hazard identification, risk assessment, and incident investigation  | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-3      | Occupational health services  | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-4      | Worker participation, consultation, and communication on occupational health and safety                       | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-5      | Worker training on occupational health and safety   | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-6      | Promotion of worker health  | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-7      | Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-8      | Workers covered by an occupational health and safety management system  | 2018        | Health and safety                | 83 - 85        | -                         |  |
| 403-9      | Work-related injuries   | 2018        | Health and safety                | 84 - 85        | -                         | The data include internal employees of ABS and external workers who are not ABS employees but whose work and/or workplace is under the control of the organization and where it is possible to carry out monitoring. |
| <b>404</b> | <b>Training and Education</b>   | <b>2016</b> | <b>People</b>                    | <b>74 - 82</b> | <b>-</b>                  |  |
| 103-1 a.   | Explanation of the material topic and its Boundary  | 2016        | Correspondence table (NFS - GRI) | 108            | -                         |  |
| 103-2      | The management approach and its components  | 2016        | People                           | 74 - 82        | -                         |  |



| GRI ID            | DISCLOSURE   | YEAR        | REFERENCE                        | Pag                     | Legis. Decree<br>254/2016 | NOTES |
|-------------------|--|-------------|----------------------------------|-------------------------|---------------------------|-------|
| 103-3             | Evaluation of the management approach  | 2016        | People                           | 74 - 82                 | -                         |       |
| 404-1             | Average hours of training per year per employee  | 2016        | People                           | 80 - 81                 | -                         |       |
| <b>405</b>        | <b>Diversity and Equal Opportunity</b>   | <b>2016</b> | <b>People - Governance</b>       | <b>37 - 38, 74 - 82</b> | <b>-</b>                  |       |
| 103-1 a.          | Explanation of the material topic and its Boundary   | 2016        | Correspondence table (NFS - GRI) | 108                     | -                         |       |
| 103-2             | The management approach and its components   | 2016        | Governance - People              | 37 - 38, 74 - 82        | -                         |       |
| 103-3             | Evaluation of the management approach  | 2016        | Governance - People              | 37 - 38, 74 - 82        | -                         |       |
| 405-1             | Diversity of governance bodies and employees   | 2016        | Governance - People              | 37, 79                  | -                         |       |
| <b>406</b>        | <b>Non-discrimination</b>  | <b>2016</b> | <b>Ethics</b>                    | <b>40 - 42</b>          | <b>-</b>                  |       |
| 103-1 a.          | Explanation of the material topic and its Boundary   | 2016        | Correspondence table (NFS - GRI) | 108                     | -                         |       |
| 103-2             | The management approach and its components   | 2016        | Ethics                           | 40 - 42                 | -                         |       |
| 103-3             | Evaluation of the management approach  | 2016        | Ethics                           | 40 - 42                 | -                         |       |
| 406-1             | Incidents of discrimination and corrective actions taken   | 2016        | Violations                       | 42                      | -                         |       |
| <b>414</b>        | <b>Supplier Social Assessment</b>  | <b>2016</b> | <b>Supply Chain</b>              | <b>92 - 95</b>          | <b>-</b>                  |       |
| 103-1             | Explanation of the material topic and its Boundary   | 2016        | Correspondence table (NFS - GRI) | 108                     | -                         |       |
| 103-2             | The management approach and its components   | 2016        | Supply Chain                     | 92 - 95                 | -                         |       |
| 103-3             | Evaluation of the management approach  | 2016        | Supply Chain                     | 92 - 95                 | -                         |       |
| 414-1             | New suppliers that were screened using social criteria   | 2016        | Supply Chain                     | 92, 94                  | -                         |       |
| <b>419</b>        | <b>Socioeconomic Compliance</b>  | <b>2016</b> | <b>Ethics</b>                    | <b>40 - 42</b>          | <b>-</b>                  |       |
| 103-1 a.          | Explanation of the material topic and its Boundary   | 2016        | Correspondence table (NFS - GRI) | 108                     | -                         |       |
| 103-2             | The management approach and its components   | 2016        | Ethics                           | 40 - 42                 | -                         |       |
| 103-3             | Evaluation of the management approach  | 2016        | Ethics                           | 40 - 42                 | -                         |       |
| 419-1             | Non-compliance with laws and regulations in the social and economic area   | 2016        | Violations                       | 42                      | -                         |       |
| <b>CUSTOM KPI</b> |  |             |                                  |                         |                           |       |
|                   | <b>Certification's scheme</b>  |             | <b>ABS Certifications</b>        | <b>28</b>               | <b>-</b>                  |       |
|                   | Noise: percentage of investments in the last three years for activities seeking to contain noise impacts and/or vibrations |             | Noise & vibration                | 70                      | -                         |       |



# CORRESPONDENCE TABLE (NFS - GRI)

| MATERIAL TOPIC  | GRI STANDARD   | LEGIS. DECREE<br>254/2016                                   | BOUNDARIES | Paragraphs covering<br>the topic in the report                   |
|---|--|---|------------|--|
| Energy and GHG (greenhouse gas) emissions   | 302 - Energy<br>305 - Emissions  | Environmental aspects                                       | ABS        | Energy   |
| Other emissions into the atmosphere   | 305 - Emissions  | Environmental aspects                                       | ABS        | Air  |
| Ethical management of the business  | 205 - Anti-corruption<br>206 - Anti-competitive Behavior<br>419 - Non-compliance with laws and regulations in the social and economic area | Fighting corruption   | ABS        | Ethics   |
| Chemical & toxic compounds  | 305 - Emissions  | Environmental aspects                                       | ABS        | Air  |
| Development of practices to ensure full compliance with health and safety at work   | 403 - Occupational Health and Safety   | Personnel aspects   | ABS        | Health and safety  |
| Logistics and transport   | NA   |   | ABS        | Logistics and transport  |
| Management of water resources: withdrawals and discharges   | 303 - Water and Effluents  | Environmental aspects                                       | ABS        | Water withdrawals and discharges                                 |
| Circular economy actions and policies aimed at reducing the impact of the acquisition of raw materials and develop a virtuous waste management model, adopting, where possible, recovery and recycling policies instead of disposal | 301 - Materials<br>306 - Waste   | Environmental aspects                                       | ABS        | Raw materials and circular economy<br>Waste and circular economy |
| Noise & vibration   | NA   | Environmental aspects                                       | ABS        | Noise & vibration  |
| Commitment of the management towards the adoption of sustainability policies  | NA   | Environmental aspects;<br>Social aspects; Personnel aspects | ABS        | Our sustainability strategy<br>Governance                        |
| Sustainability-oriented supply chain management   | 204 - Procurement Practices<br>308 - Supplier Environmental Assessment<br>414 - Supplier Social Assessment                                 | Environmental aspects;<br>Social aspects                    | ABS SpA    | Supply Chain   |
| Actions towards staff regarding remuneration policies, development of growth paths for skills and respect for human rights  | 404 - Training & Education<br>405 - Diversity and Equal Opportunity<br>406 - Non-discrimination  | Personnel aspects   | ABS        | People   |

# METHODOLOGICAL NOTE



This document represents the Voluntary Non-Financial Statement (hereinafter also “NFS” or “Sustainability Report” or “Non-Financial Statement”) of Acciaierie Bertoli Safau S.p.A. (hereinafter also “ABS SpA”, and, with its subsidiaries, “ABS”), drawn up in accordance with Article 3 and 4 of Italian Legislative Decree 254/2016, containing information relating to environmental, social, personnel topics, respect for human rights and the fight against corruption, in a transparent and complete way.

ABS has chosen to voluntarily comply, where possible, with the provisions of Legislative Decree no. 254 of December 30, 2016, concerning the communication of non-financial information, in implementation of European Directive 2014/95/EU.

The Sustainability Report of ABS S.p.A. is published annually and was approved by the Board of Directors on October 11, 2022. This document has been prepared by reporting a selection of the GRI Sustainability Reporting Standards, published in 2016 by the GRI (Global Reporting Initiative).

The Sustainability report by ABS has been prepared with a strategic approach in view of the creation of sustainable value for stakeholders.

As the first consolidated approach to reporting non-financial information on the scope of the Group, the reporting process will be subject to a process of continuous improvement over the next few years.

The process of identifying the most important issues, on which to focus efforts and resources, started in 2016 and updated over the following years, led to the definition of material topics, understood

as “topics that can generate significant economic, social and environmental impacts” on ABS activities. In particular, the definition of content is based on the principle of materiality, stakeholder inclusiveness, sustainability context and completeness of the data and information provided.

The data and information in this document refer to the financial year 2022 (from July 1, 2021 to June 30, 2022). Where possible, the information in the NFS has been provided with a comparison to the 2021 financial year in order to ensure the principle of comparability between the data presented.

The boundary of the economic, financial and social data and information in this document is the same as in the Consolidated Financial Statements of ABS S.p.A. For environmental indicators, in addition to referring to the two production companies, ABS S.p.A. in Cargnacco and ABS Sisak d.o.o. in Croatia, the company ACM - ABS Centre Métallurgique Sarl in Metz, France, was included, while the commercial offices of the companies ABS Deutschland GmbH (Germany) - ABS Scandinavia AB (Sweden) - Acciaierie Bertoli Safau Iberica S.L. (Spain), and the Brindico office of ABS Service, which is part of ABS SpA, were excluded, as they have impacts that can be considered insignificant.

In order to provide a correct representation of performance and to ensure the reliability of the data, the use of estimates was limited as much as possible. The estimates, if any, are appropriately reported. A correspondence table “GRI Content Index” identifies each indicator used taken from the GRI Sustainability Reporting Standards and provides a clear view of the information and sustainability content following



# METHODOLOGICAL NOTE

the standard. With reference to the GRI 303 - Water and effluents and GRI 403 - Occupational health and safety topics, the versions updated to 2018 have been used; with reference to the GRI 306 - Waste topic, the version updated to 2020 has been used.

This document has been submitted for conformity assessment (“limited assurance engagement” according to the criteria indicated by the ISAE 3000 standard, revised) by Deloitte & Touche S.p.A., which certifies in a separate report the conformity of the in-

formation provided pursuant to Article 3, paragraph 10, of Legislative Decree 254/2016. 254/2016.

The audit was carried out in accordance with the procedures set out in the “Independent auditor’s report”, included in this document.

For information on the contents of this report, please write to **[sustainability@absacciai.com](mailto:sustainability@absacciai.com)**.



# INDEPENDENT AUDITOR'S REPORT



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## INDEPENDENT AUDITOR'S REPORT ON THE CONSOLIDATED NON-FINANCIAL STATEMENT PURSUANT TO ARTICLE 3, PARAGRAPH 10 OF LEGISLATIVE DECREE No. 254 OF DECEMBER 30, 2016 AND ART. 5 OF CONSOB REGULATION N. 20267/2018

To the Board of Directors of  
**Acciaierie Bertoli Safau S.p.A.**

Pursuant to article 3, paragraph 10, of the Legislative Decree no. 254 of December 30, 2016 (hereinafter "Decree") and to article 5 of the CONSOB Regulation n. 20267/2018, we have carried out a *limited assurance engagement* on the Consolidated Non-Financial Statement of Acciaierie Bertoli Safau S.p.A. and its subsidiaries (hereinafter "ABS Group" or "Group") as of June 30, 2022 prepared, on a voluntary basis, in accordance with art. 4 of the Decree, and approved by the Board of Directors on October 11, 2022 (hereinafter "NFS").

### Responsibility of the Directors and the Board of Statutory Auditors for the NFS

The Directors of Acciaierie Bertoli Safau S.p.A. (hereinafter "Company") are responsible for the preparation on a voluntary basis of the NFS in accordance with art. 7 of the Decree, and in accordance with the provision of articles 3 and 4 of the Decree and the "Global Reporting Initiative Sustainability Reporting Standards" established by GRI – *Global Reporting Initiative* (hereinafter, "GRI Standards"), which they have identified as reporting framework.

The Directors are also responsible, within the terms established by law, for such internal control as they determine is necessary to enable the preparation of a NFS that is free from material misstatement, whether due to fraud or error.

The Directors are moreover responsible for defining the content of the NFS, within the topics specified in article 3, paragraph 1, of the Decree, taking into account the activities and characteristics of the Group, and to the extent necessary in order to ensure the understanding of the Group's activities, its trends, performance and the related impacts.

Finally, the Directors are responsible for defining the business management model and the organization of the Group's activities as well as, with reference to the topics detected and reported in the NFS, for the policies pursued by the Group and for identifying and managing the risks generated or undertaken by the Group.

The Board of Statutory Auditors is responsible for overseeing, within the terms established by law, the compliance with the provisions set out in the Decree.

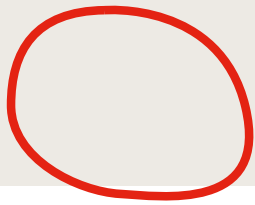
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# INDEPENDENT AUDITOR'S REPORT



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## Auditor's Independence and quality control

We have complied with the independence and other ethical requirements of the *Code of Ethics for Professional Accountants* issued by the *International Ethics Standards Board for Accountants*, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Our audit firm applies *International Standard on Quality Control 1 (ISQC Italia 1)* and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## Auditor's responsibility

Our responsibility is to express our conclusion based on the procedures performed about the compliance of the NFS with the Decree and the GRI Standards. We conducted our work in accordance with the criteria established in the *"International Standard on Assurance Engagements ISAE 3000 (Revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information"* (hereinafter *"ISAE 3000 Revised"*), issued by the *International Auditing and Assurance Standards Board (IAASB)* for *limited assurance* engagements. Such standard requires that we plan and perform the engagement to obtain limited assurance whether the NFS is free from material misstatements. Therefore, the procedures performed in a limited assurance engagement are less than those performed in a *reasonable assurance engagement* in accordance with ISAE 3000 Revised, and, therefore, do not enable us to obtain assurance that we would become aware of all significant matters and events that might be identified in a reasonable assurance engagement.

The procedures performed on the NFS are based on our professional judgement and included inquiries, primarily with Company personnel responsible for the preparation of information included in the NFS, analysis of documents, recalculations and other procedures aimed to obtain evidence as deemed appropriate.

Specifically, we carried out the following procedures:

1. analysis of relevant topics with reference to the ABS Group's activities and characteristics disclosed in the NFS, in order to assess the reasonableness of the selection process in place in light of the provisions of art.3 of the Decree and taking into account the adopted reporting standard;
2. analysis and assessment of the identification criteria of the consolidation area, in order to assess its compliance with the Decree;
3. comparison between the financial data and information included in the NFS with those included in the consolidated financial statements of the ABS Group;

4. understanding of the following matters:

- business management model of the Group's activities, with reference to the management of the topics specified by article 3 of the Decree;
- policies adopted by the entity in connection with the topics specified by article 3 of the Decree, achieved results and related fundamental performance indicators;
- main risks, generated and/or undertaken, in connection with the topics specified by article 3 of the Decree.

Moreover, with reference to these matters, we carried out a comparison with the information contained in the NFS and the verifications described in the subsequent point 5, letter a) of this report;

5. understanding of the processes underlying the origination, recording and management of qualitative and quantitative material information included in the NFS.

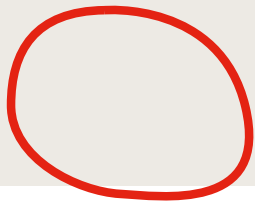
In particular, we carried out interviews and discussions with the management of Acciaierie Bertoli Safau S.p.A. and the employees of the subsidiary ABS Sisak d.o.o. and performed limited documentary verifications, in order to gather information about the processes and procedures which support the collection, aggregation, elaboration and transmittal of non-financial data and information to the department responsible for the preparation of the NFS.

In addition, for material information, taking into consideration the Group's activities and characteristics:

- at the Group's level:
  - a) with regards to qualitative information included in the NFS, and specifically with reference to the business management model, policies applied and main risks, we carried out interviews and gathered supporting documentation in order to verify its consistency with the available evidence;
  - b) with regards to quantitative information, we carried out both analytical procedures and limited verifications in order to ensure, on a sample basis, the correct aggregation of data.
- For Acciaierie Bertoli Safau S.p.A. and ABS Sisak d.o.o., which we selected based on their activities, their contribution to the performance indicators at the consolidated level and their location, we carried out site visits, during which we have met their management and have gathered supporting documentation with reference to the correct application of procedures and calculation methods used for the indicators.

### Conclusion

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of the ABS Group as of June 30, 2022 is not prepared, in all material aspects, in accordance with article 3 and 4 of the Decree and the GRI Standards, with reference to the selection of GRI Standards.



# INDEPENDENT AUDITOR'S REPORT

**Deloitte.**

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## **Other matters**

The data for the year ended June 30, 2021 presented for comparative purposes in the NFS have not been subject to a limited or to a reasonable assurance engagement.

DELOITTE & TOUCHE S.p.A.

Signed By  
**Barbara Moscardi**  
Partner

Udine, Italy  
October 21, 2022

*This report has been translated into the English language solely for the convenience of international readers.*



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