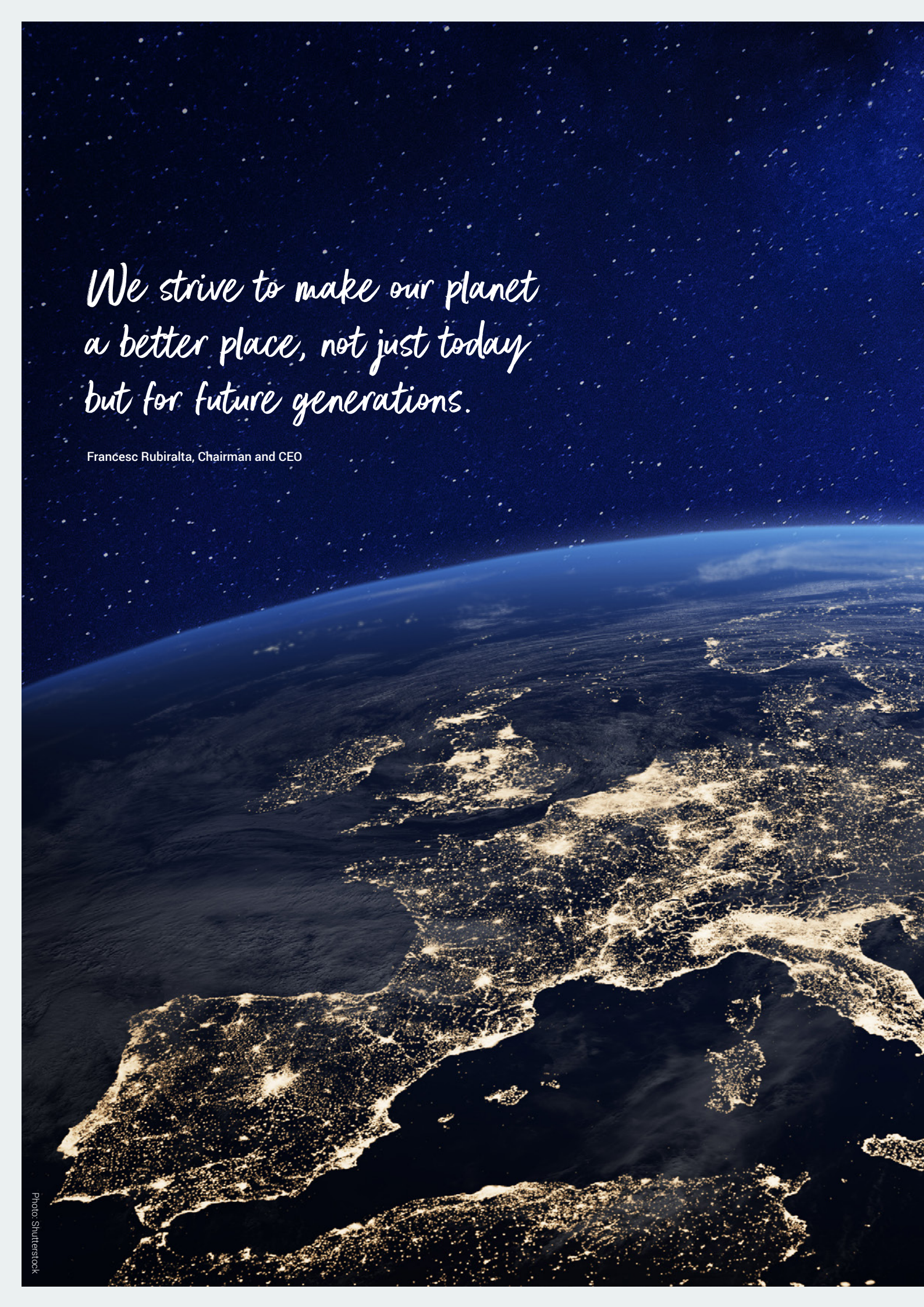




# Embracing a sustainable future

THE CELSA CIRCULAR STEEL PROGRAMME



*We strive to make our planet  
a better place, not just today  
but for future generations.*

Francesc Rubiralta, Chairman and CEO

# CELSA Circular Steel

Over recent years we have made significant progress towards our vision of making steel truly circular. Now, we are applying additional resources and focus with **CELSA Circular Steel**, a programme that will build on that progress by driving more value for our customers and partners, helping to meet their needs to increase sustainability and innovation.

CELSA Circular Steel brings together the activity and commitments across our entire Group that are accelerating the transition to fully circular steel. Much of that has deep roots in our history as a steel company that has upheld sustainable methods for more than 50 years. But this programme is not just about making CELSA more circular, it is about supporting and encouraging comprehensive and interconnected action across the entire steel value chain. This is not a project to deliver internal change, it is a long-term programme to achieve sector change.

We want to lead by example. We have set out to make this the connective tissue that drives more valuable change in the most effective ways. CELSA Circular Steel can help us all to achieve full circularity faster, through the contribution that this programme makes to CELSA Group's ongoing commitment to circularity.



**Francesc Rubiralta**  
Chairman & CEO  
CELSA Group

## GOALS

# 2030

–50% CO<sub>2</sub> EQ. EMISSIONS\*

# 2050

NET POSITIVE\*\*

\* Scope 1 + 2 Emissions, baseline year 2021

\*\* Carbon Neutrality (scope 1 + 2 + 3), zero waste and zero accidents with a net positive impact on our planet

# Accelerating the circular journey together

**A sustainable future can only be achieved through bold ambition and collective endeavour.**

**Steel is crucial to our world and its future.** A thread that runs throughout society, present in our buildings, infrastructure and homes. The steel industry underpins many others, like construction and transportation, so the impact of steel is felt far beyond its primary sector.

57% of humanity's ecological footprint comes from carbon. By halving carbon from humanity's ecological footprint, we would reduce our consumption of the Earth's resources to 1:1, which would move the 'overshoot day' by nearly three months. Society is currently **consuming the resources of future generations**, and the pollution and waste the industry generates are accelerating environmental degradation and climate change. Corporations find themselves asking what changes they should be implementing, and what will have the most positive impact.

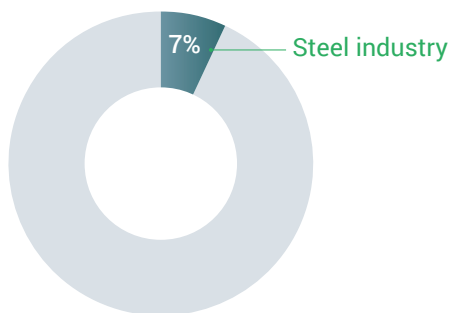
The planet's two most significant challenges – climate change and overconsumption of natural resources – are clear for all to see and come at a time when we need to rebuild economies, create jobs and improve quality of life. **Making sectors more circular is a central part of the solution** because of the potential to help reduce global warming and our use of the world's resources. In the steel industry, we must evolve over the remainder of this decade in line with the EU's climate targets and action plans, and to seek to limit global warming to 1.5 degrees Celsius.

There is so much at stake, and so much of the action required is rooted in what the steel industry does and how it is changing. The reality is that many industries will not succeed in becoming sustainable themselves without sustainable steel. CELSA wants to be a leader in this field and it is **a sustainable journey that we must accelerate together.**



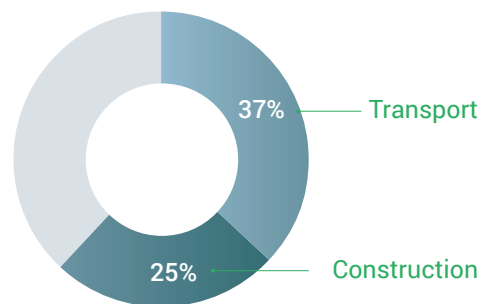
The steel industry causes around 5% of CO<sub>2</sub> emissions in the European Union and 7% globally.

Source: European Commission.



Transport has the highest reliance on fossil fuels of any sector and accounted for 37% of CO<sub>2</sub> emissions from end use sectors in 2021. The construction industry – which accounts for 50% of the world's steel consumption - creates around 25% of global emissions.

Source: European Commission / International Energy Agency



# We have already taken giant steps

## The circular journey is well underway, but more action is needed to close the loop.

We have already made significant progress on this journey. Since our creation more than 50 years ago, our primary business has been recycling steel, and we are now the largest industrial circular supply chain in Europe.

At the very heart of this is **CELSA Circular Steel**, our programme to make steel more sustainable, with a focus on circularity and emissions reduction. It is a programme that gives us ambitious goals, focusing on accelerating the drive to a net-positive future by closing the loop in everything we deliver. A strategic imperative that unites our Group at every level, the programme will remain 'wired in' to how we do business every day.

Above all, we want to **give infinite lives to finite resources**, and that is our purpose. We are a large international group, but we ensure that in driving net-positive outcomes, we think and act locally.

Circularity is in everyone's interests. This means not only our business and its stakeholders, but everyone that we supply, everyone that supplies us, and everyone that we impact. This engrained circular approach goes hand-in-hand with emissions reduction, as circular supply chains are the only way to decarbonise the steel industry long-term and sustainably.

It goes far beyond recycling. Our focus is on how the system operates as a whole, and how that impacts the world we will leave to those who come after us. We are investing and acting to make our sector more sustainable in order to safeguard the future of society and communities.

**As a family-owned company**, we are able to commit to long-term change with investment, strategic consistency and agility.

A family company from the outset, we operate with a spirit and mentality that differentiate our circularity drive from other public or private business groups.

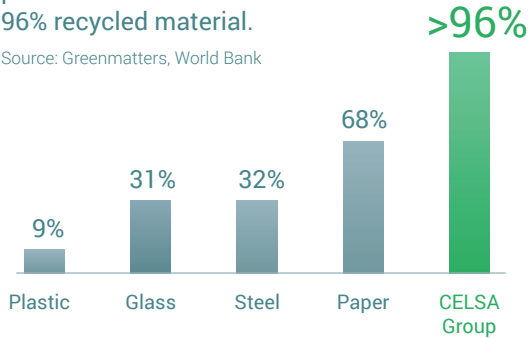


## CELSA Group – Key facts and figures

### A LEADER IN RECYCLING

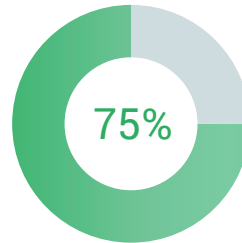
CELSA Group leads not just our steel competitors, but also producers across other materials. The steel CELSA Group produces contains more than 96% recycled material.

Source: Greenmatters, World Bank



### HIGH DEGREE OF TRACEABILITY

In relation to raw material (scrap) CELSA Group invests 75% of our total procurement budget with local suppliers, with a high degree of traceability.



### A PROVEN LOW-EMISSIONS COMPANY

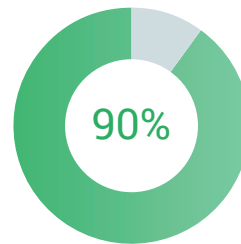
CELSA Group only uses electric arc furnaces and our emissions are six times lower than those of companies that use blast furnaces.

Source: Sustainable indicators of the world Steel Association



### A LEADER IN WASTE RECOVERY

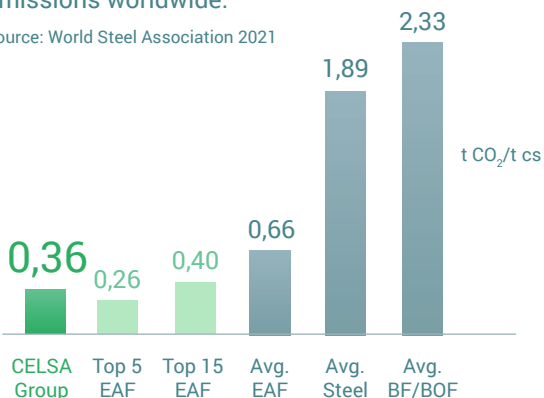
CELSA Group recovers more than 90% of the waste generated by our production processes to give it a second life.



### TOP 15%

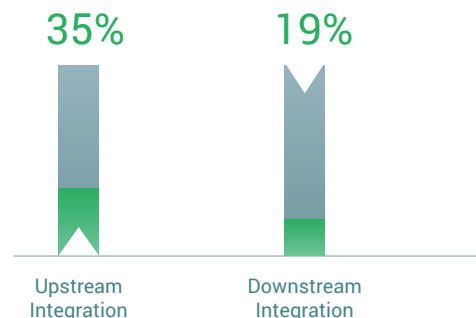
CELSA Group is ranked within the top 15% high-performing companies reducing their CO<sub>2</sub> emissions worldwide.

Source: World Steel Association 2021



### VERTICAL INTEGRATION

Upstream of our manufacturing process we secure strategic advantage in traceability. Downstream, our services bring us closer to our customers, adding value to the supply chain.



## CELSA GROUP – EUROPE'S LARGEST INDUSTRIAL CIRCULAR SUPPLY CHAIN



**6**  
Business groups



**120**  
Work sites



**7**  
Steel mills



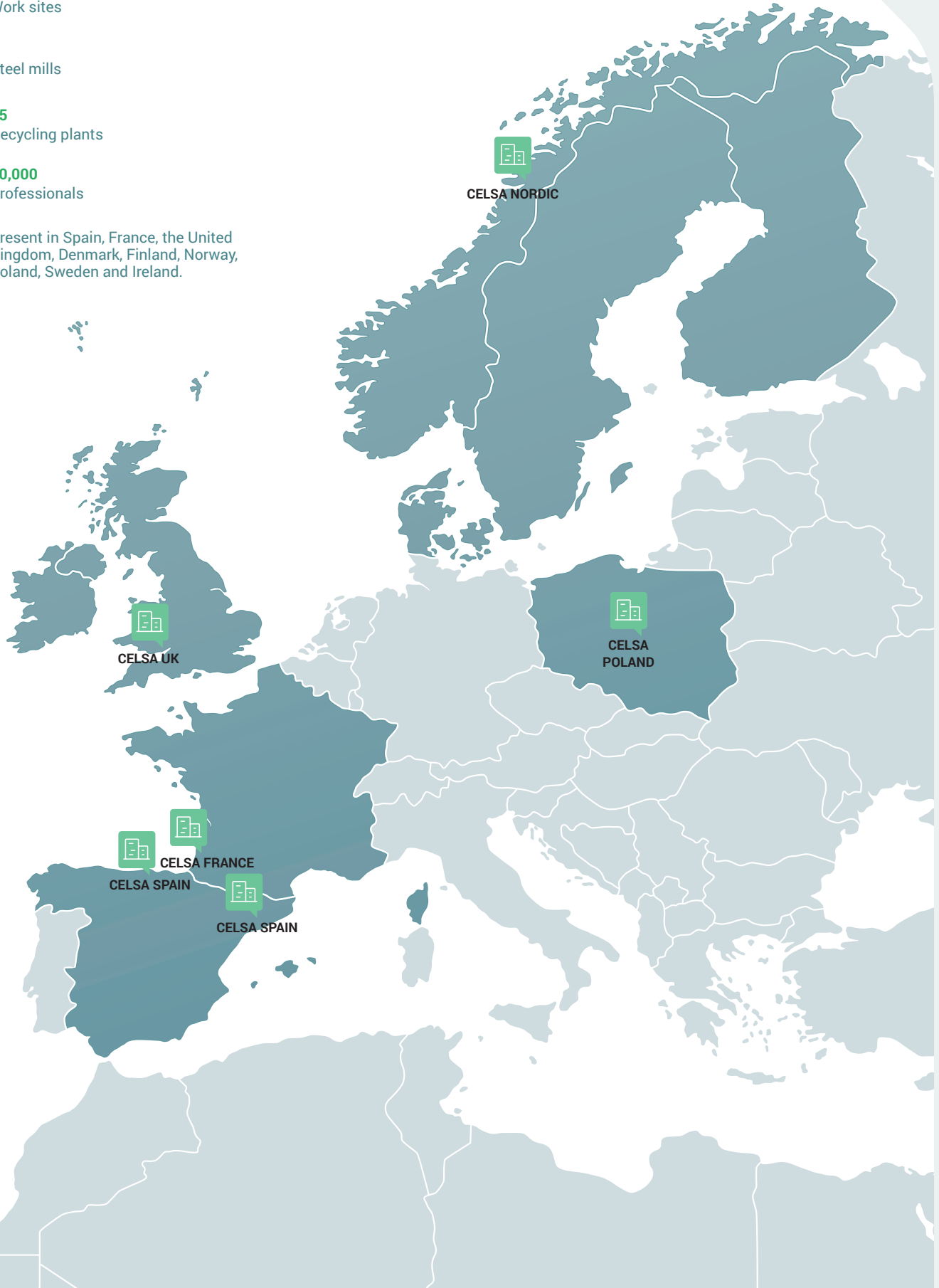
**45**  
Recycling plants



**10,000**  
Professionals



Present in Spain, France, the United Kingdom, Denmark, Finland, Norway, Poland, Sweden and Ireland.



# Inspiration and lasting change

**We have made significant progress. As we look ahead, we know there remains much to achieve, and that we must aim high.**

**Our goal is clear:** by 2030, we aim to reduce CO<sub>2</sub> equivalent Scopes 1 and 2 emissions by 50%. We also intend to recover 98% of our waste by 2030 and have the ambition to become net-positive by 2050.

These are not lofty goals without substance – CELSA Group is acting now for the future, and we will measure our progress closely. On emissions, our action is evident across:

- **Scope 1:** CELSA Group’s most significant challenge – the continued use of fossil fuels – is also the most significant **opportunity for advancement and impact**. Innovation is helping us move the needle in reducing these emissions, for example by accelerating a green hydrogen value chain to replace fossil fuels in the production of rebar and wire rod.

- **Scope 2:** we are working to reduce electricity consumption by **improving energy efficiency and optimisation**, particularly that used for Electric Arc Furnaces. And we are also ensuring that our electricity increasingly comes from renewable sources.
- **Scope 3:** we will continue to **implement sustainable procurement practices**, which encourage collaboration with our supply chain, and in doing so reduce the embodied carbon of the goods and services we purchase.

Collaboration is at the heart of our work to achieve these goals. The entire steel ecosystem must understand the action required to reduce societal and environmental impact.

## → 2030 PATHWAY

SCOPE 1&2	CO2 /tn	kg CO <sub>2</sub> /tn
2021 Data	1,9	313
2030 Objective	0,9	157
<b>Reduction</b>	<b>50%</b>	



# Closing the loop together

**CELSA Circular Steel draws together the elements of the value chain where action can have the greatest impact in the drive for circularity.**

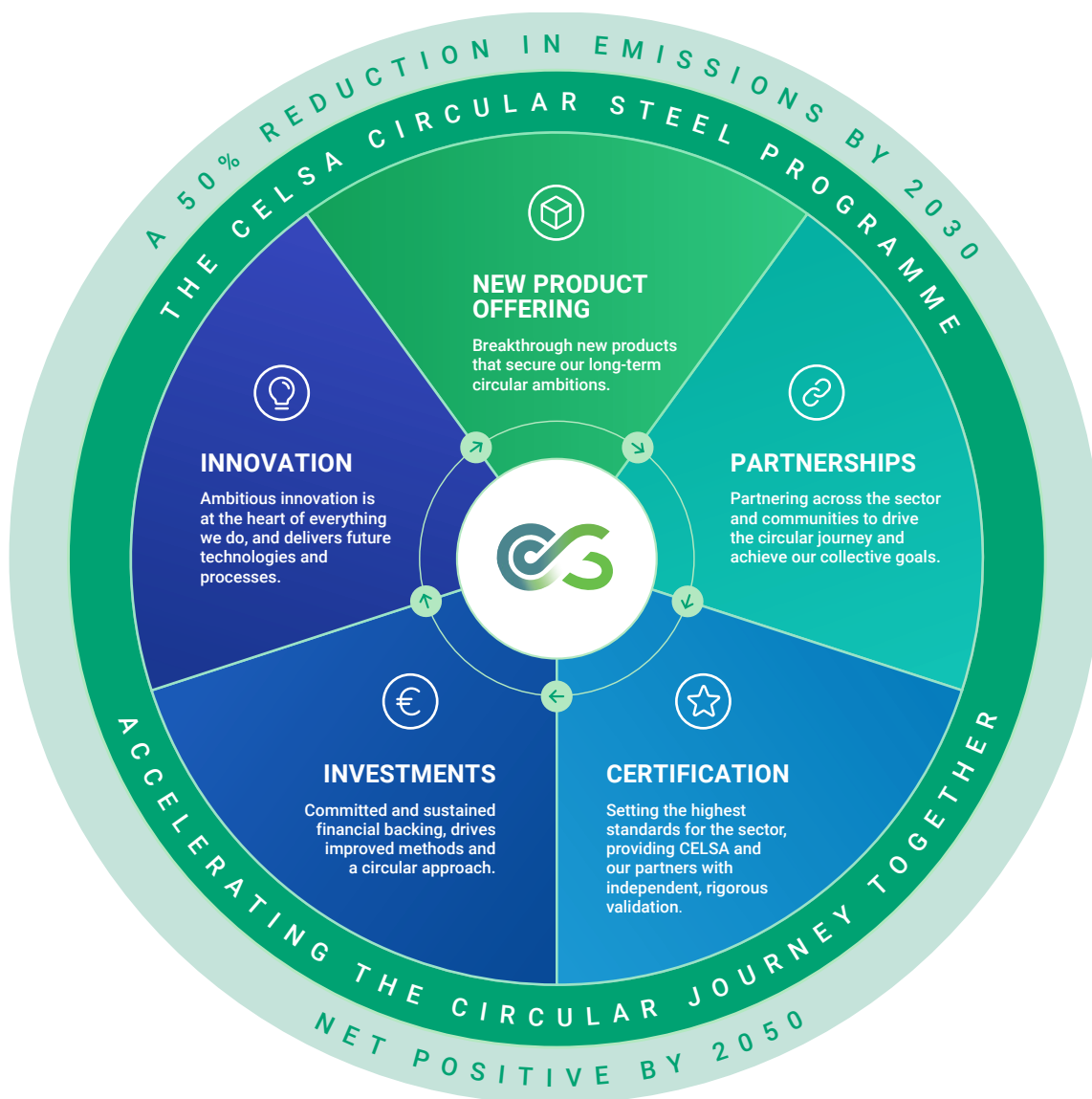
We have taken the lead on making steel circular. Now we are ready to accelerate our transformation to achieve a net-positive future by 2050, to give more back to society than we take.

As we do that, we will help others to come on the same journey. We will provide both a clear focus on change and ensure that each part of our ecosystem

acts within the bigger picture of that transformation, with practical measurement of our progress. And to accelerate that, we have prioritised five pillars that will shape a more circular future.

### The programme 'nuts and bolts'

We are optimising everything already underway across our Group to support our circular and sustainability objectives. CELSA Group can drive progress in alignment with our commercial priorities – particularly our sustainability strategy – to close the loop effectively.



# New Product Offering

To achieve the ultimate purpose of CELSA Group – becoming a net positive company – the CELSA Circular Steel programme includes a specific product offer, which is characterised by a clear prioritisation of measures.

First, measures that enable CO<sub>2</sub> emissions to be reduced or avoided – primarily through energy efficiency measures within the production processes.

Second, measures to gradually switch the energy supply in all links of the value chain to renewable energy.

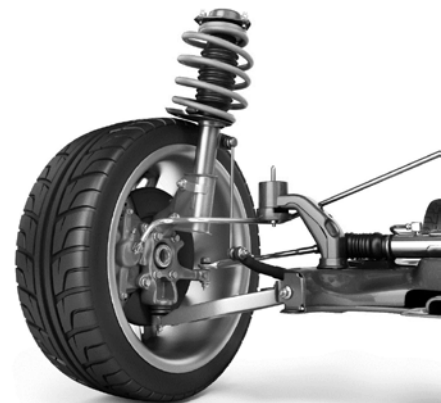
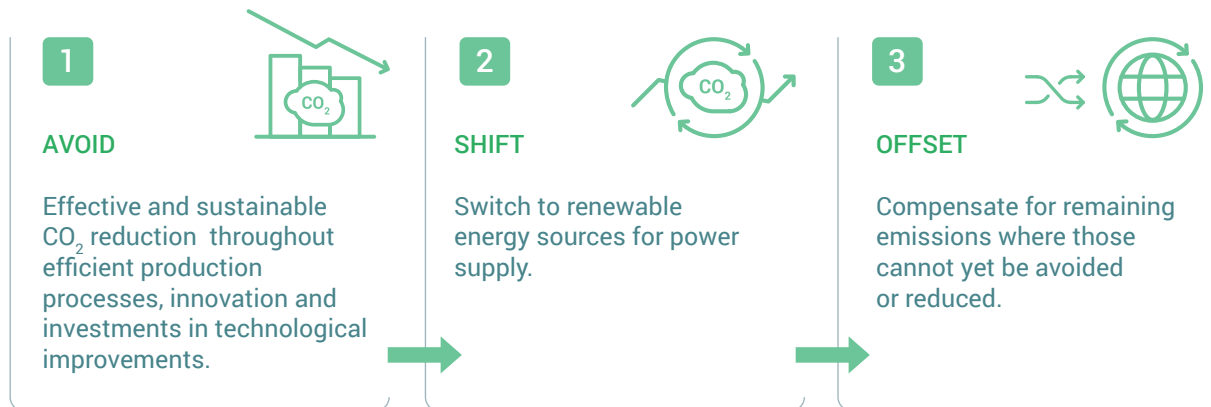
And third, offering the possibility to offset those residual unavoidable CO<sub>2</sub> emissions through climate protection projects that meet the highest international standards.

Whilst CELSA Group has offered low-emissions and circular steel for more than 50 years, we continue to reach major milestones in carbon reductions. We complement our hierarchy of measures with a product offer focused on both upstream integration and Electric Arc Furnace (EAF) technology:

**Upstream integration** Upstream integration is a differentiator for CELSA Group, with benefits from the control and direct management of a significant amount - more than 2.5 million tons/year - of the raw material used in production processes (scrap). This clearly allows CELSA Group to have a competitive advantage in the market.

**EAF technology** EAF technology is the most efficient and lowest emissions technology for producing steel, as it draws on significantly fewer natural resources and therefore has a lower carbon footprint. EAF technology is at the heart of 'CELSA Circular Steel'.

## CELSA Circular Steel programme prioritisation



## CELSA Circular – a programme offering three differentiated products embedded in three strategic priorities.

The CELSA Circular Steel product offer is based on the three pillars, strengthening CELSA Group's unique selling proposition and values:



Customised increased recycled material content into our steel production process up to 100%:

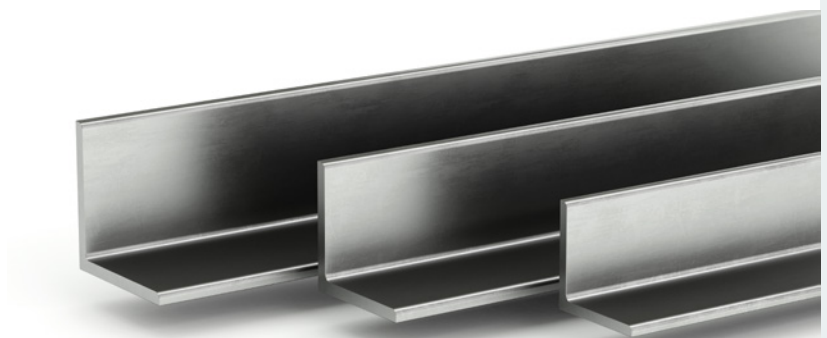
- By taking advantage of our upstream-integrated business (selected raw materials, scrap management, local sourcing, etc.)
- By gaining full transparency/ information of our whole supply chain, offering our customers to set more ambitious targets and challenges in terms of circularity (e.g. close loop processes).



Steel production processes with renewable electricity throughout certified guarantees of origin (clean energy = CO<sub>2</sub> footprint up to 65% lower).



Carbon neutral steel complements the CELSA Circular Steel product offer by offsetting those unavoidable remaining emissions that CELSA Group is – as of today – not able to avoid and/or reduce.



# Partnerships

The greatest **challenge** of our time affects us and future generations. It is not only about reducing emissions – we believe that only by **being circular** can we fight climate change and tackle the depletion of natural resources.

CELSA Group is one of Europe's largest steel producers and we strategically use our position to **influence** and inspire suppliers, customers, and other stakeholders. However, we can't inspire without the **participation** of others, alongside active **engagement**.

We want our customers and partners to be co-creators. We don't seek just passive members of an audience, but for active **messengers** for the product and the brand, so that they can spread our collective message.

We want stakeholders to be a part of something: **to belong, to influence, to engage**. It's not enough that they feel good about our purpose – we want it to be their purpose too, to embrace it, because purpose needs to be shared.

And it is right here, in the will to have a shared purpose, where this pillar is born.

When we talk about **partnerships**, we mean a **cooperation agreement** under which two or more parties comply to unite their efforts or their resources to achieve this **shared purpose**.

Partnerships with **suppliers** will allow both parties to: launch strategies to fight climate change and the depletion of natural resources, ensure that we have traceability throughout our supply chain, and belong to the largest circular supply chain in Europe.

Conversely, coming into a partnership with CELSA Group, will enable **customers** to have **availability** of low carbon footprint products with full transparency and traceability, mitigating their scope 3 emissions.

Our partners can also **co-create** new products and features – allowing them to set more **ambitious** targets in terms of circularity – and to **provide** low carbon, circular and neutral solutions to their customers.

To create results, we must work together across industries, countries and areas of interest. Global challenges require collaboration on a global level in a cross-sectorial way. With customers, for example, we jointly develop new grades with higher scrap content to lower our carbon footprint.

With our suppliers, we have developed a traceability and transparency circular project through advanced technologies (blockchain), with emissions, recyclability, quality and process data and certificates shared across the value chain.

CELSA Group is also one of the founders of the Global Steel Climate Council (GSCC). GSCC is an international coalition of steel producers and stakeholders committed to limiting global warming to 1.5 degrees Celsius by the year 2050 - its primary focus is to reduce emissions and establish high standards for the sector.

# Certifications

This pillar reinforces our active commitment to circularity and sustainability, and **provides the highest degree of traceability** to all stakeholders in our supply chain giving them certainty that the products and services they are sourcing from CELSA Group are contributing to a closed loop, circular supply chain.

**Traceability** and **transparency** go hand-in-hand, and at CELSA Group we **understand the value that is generated** in doing so, from improved business quality control to increased sustainability. Whilst this makes business sense, we understand that our customers also benefit from increased visibility of their supply chain and traceability allows them to do just that: track every aspect of manufacturing and distribution of products, from 'cradle to grave'.

We have been **working with customers to provide bespoke solutions** that address the challenge of traceability within their supply chain. Across CELSA Group, we have introduced traceability labels. The label assures customers that the products we supply are 100% recyclable and produced with 100% recovered steel scrap, reducing their environmental footprints.

Upstream of our manufacturing process, the recovery and treatment of scrap provides CELSA Group with a strategic advantage when it comes to traceability. Not only are we able to get to the source of our primary raw material, scrap, but in doing so,

we **improve the quality of material recycled** in our process. The benefits are two-fold: we are able to provide assurance to suppliers of scrap that the material they deliver to us will be processed and recycled in our Electric Arc Furnaces and for our customers, tailor steel products for them depending on scrap types (pre versus post-consumer scrap). One clear example is FERIMET, Spain's leading recycler of iron scrap, which developed a third-party verified certificate based on three key circularity indicators: **recyclability, traceability and proximity** of the scrap to site.

Value has already been created for our stakeholders through our internal third-party certifications. And we are working in parallel to achieve external certifications that **ensure compliance with globally-recognised requirements**, providing traceability throughout our supply chain. We are working with certification schemes such as ISCC Plus, a sustainability certification programme for circular, recycled raw materials, focused on the traceability of raw materials in the supply chain.

We will be working closely with our innovation team to develop and implement the use of block chain technologies' to create digital product passports. This will allow us to gather information about a product across its supply chain, improving our supply chains understanding of the products and its environmental impact.



## TRACEABILITY CERTIFICATE

At CELSA Nordics, this label is an ISO-14020 certification of our circular steel, for use by our customers and partners.

Over the next year we will ensure all our manufacturing facilities can offer traceability labels for their circular steel, to their customers and other stakeholders.

# € Investments

CELSA Group's approach to sustained investment, strengthened by being a **family-owned business** that can maintain long-term commitments, is to target innovation in production and processes while supporting the wider ecosystem internally and externally.

We want the amount we invest to have **lasting benefit on multiple levels**, diversifying our business activity, and generating sustainable growth and value for all.

Our investments are targeted at both the actions we can take to reduce our emissions and at long term improvements that will see an increase in circularity across our sector.

For Scope 1 emissions, the main area of focus is to reduce our **consumption of natural gas**. This will be achieved through increased use of oxyfuel combustion across our production process. Our investments will also include the future use of hydrogen along with other low carbon technologies. The premise of exploring other low carbon technologies beyond hydrogen is to future-proof the business against the existing short-term challenges that hydrogen presents. Our transition away from natural gas must be

cost-competitive, so we see our long term future being a mix of **green hydrogen, biofuels and the use of induction-based furnaces**.

For Scope 2, **lowering our electricity consumption** and using **more renewable sources** is our primary focus. CELSA Group will invest in different areas, including equipment to improve the quality of the raw material, optimisation of EAF set-up and process, and improved efficiency of the grid and a range of data analytics to optimise use of furnaces.

Our actions across Scope 3 prioritise procurement practices and processes, which will not only **decrease emissions** but **improve our relationships** with suppliers across our supply chain.

To further drive circular value chains we will invest in increasing our collection capacity through new scrap yards with a larger processing and waste segregation capacity. This will increase our ability to produce new products that can be used as raw material in other processes, such as plastics and other metals. In parallel, multiple smaller investments will be introduced in data, sensor applications, and automation in order to improve material traceability across the value chain.



CELSA Group will invest to support efficiency of the grid and a range of data analytics to optimise the use of furnaces.



To further drive circular value chains we will invest in increasing our collection capacity through new scrap yards with a larger processing and waste segregation capacity.

# Innovation

CELSA Group innovation is driven by our sustainability strategy, with circularity, digitalisation and collaboration at its core.

As we lead the move to the blend of humans and advanced technology that will define industry **5.0**, and so give added impetus to sustainability and people, our innovation will not just focus on what we produce but on **the kind of world we want to build and the legacy we want to leave behind.**

Focusing on our most significant challenges and opportunities, **we innovate to reduce reliance on fossil fuels and primary raw materials, whilst developing – and sharing – market leading technologies to reduce emissions and increase the circularity of our value chains.**

We are committed to continual engagement in several major European projects that are revolutionising industry. The EU is investing in innovation to support the green transition, especially in our sector. Through the **Clean Steel Partnership** for instance, the European Commission is unlocking €1.4 billion of public funding by 2027 for decarbonising steel. Beyond specific projects, CELSA Group plays an active role in many international industry networks, boosting innovation for sustainability through partnerships including the Association for Sustainable Process Industry (A.SPIRE),

the European Clean Hydrogen Partnership and the European Raw Materials Alliance.

Our innovation efforts are critical to address multifaceted challenges the industry is facing, ranging from global geopolitical issues to the accessibility of crucial raw materials such as scrap. By adopting a flexible and zero emission production approach and utilising applying a set of resource recovery and digitalisation tools, CELSA Group is well-positioned to achieve its sustainability and circularity objectives **in the face of any future uncertainty.** Moreover, through this commitment, CELSA Group supports others in reducing their environmental footprint and promoting a responsible use of raw materials.

We are also seeking to explore **disruptive collaboration approaches** to strengthen industry in its fight against climate change. Our efforts to innovate have brought together different industries, universities and research institutions to unlock the full potential of artificial intelligence in fostering learning on process optimisation and resource efficiency, thus aligning growth with the EU's Green Deal objectives.

We will continue working in the field of circular solutions to involve as many stakeholders as possible in our projects. Our responsibility pushes us to do so, and **together we will succeed.** It is a journey we will be on together, hopefully for a very long time.

## HYDROGEN

Our HyInHeat and TWINGHY projects seek to to accelerate the transition to green hydrogen as a fuel for high temperature heating processes supported using digital twins as a cutting edge simulation and optimisation tool.



## CIRCULARITY

Projects such as Hymet, Probono and Cement 2 Zero are developing new technologies to increase the reuse of by-products from steel production. In parallel, projects such as Plooto help to create collaborative cross-sector initiatives by increasing traceability and transparency along value chains.



