

GREEN WAY FOR AUTOMOTIVE INDUSTRY SUPPLY CHAIN



Every day we work and invest to protect an inestimable value: the natural heritage and environment that surrounds us. To do this we have adopted the GREEN STEEL philosophy, a way of thinking and a way of acting in every single step necessary to obtain our product.



The ORI Martin Group has invested more than 14 million euros in environment and safety in the last 5 years, paying the utmost attention to ensuring that the environmental impact of each phase of the production process is constantly decreasing.

A green footprint that characterises every single ORI Martin product.



# CIRCULAR ECONOMY

The use of EAF furnaces instead of Blast Furnaces, allows the use of ferrous scrap as a raw material, giving an infinite life cycle to steel products that will become scrap again and then again raw material.

**90%**  
NATURAL  
RESOURCE  
SAVING

**80%**  
OF CO<sub>2</sub>  
REDUCTION

**95%**  
METAL SCRAP  
RECYCLING



# I RECOVERY



The project is worth over 12 million euros and has been active since 2016, the first of its kind in Italy; it was implemented in collaboration with technical partners such as Tenova, Turboden and A2A. The I-Recovery system allows to convey the large amount of heat contained in the fumes of the electric arc furnace into a system that avoids its dispersion. In fact, the heat is recovered through the generation of steam, which is stored and used as dual purpose: it is either transformed into thermal energy to be fed into Brescia district heating network or into electricity through an organic fluid turbine (ORC). Thanks to this technology, I-Recovery supplies about 10MWt for heating in the winter period, equivalent to the annual needs of about 2,000 families. In summer, however, it produces clean electricity (about 1.8 MWe), equivalent to the needs of about 700 families



**12** MLN/€  
TOTAL  
INVESTMENT

**52** GWH  
ANNUAL HEAT  
RECOVERY  
CAPACITY

ANNUAL  
SAVING OF  
**10,000**  
TON CO<sub>2</sub>

# HEATLEAP PROJECT

The HEATLEAP PROJECT is realized in partnership with Turboden, the heat pump provider and in collaboration with other important companies such as A2A, the CSMT - Centro Servizi Multisetoriale Tecnologico, Rina consulting and Cogen Europe and financed by the European Commission on the LIFE 2020 call.

Out of a total cost of 6.5 million Euros, the HEATLEAP project received a grant of 2.5 million Euros from the European Commission on the LIFE 2020 call for proposals. The project has officially started on 1<sup>ST</sup> June 2020 and will last two and a half years.

The main objective of the project is to recover most of the thermal waste of steelmaking, which would otherwise be dispersed in the environment.

Thanks to a special, large heat pump with a size of up to 7 MWth, the heat is recovered at a low temperature (about 70°C) and then taken up to an adequate temperature (from 95°C up to 120°C) to then be put into the town district heating network.

ANNUAL  
SAVING OF  
**5,000** TON  
OF CO<sub>2</sub>

HEAT PUMP  
OF ABOUT  
**7** MWTH

IMPROVING  
ENERGY  
EFFICIENCY

# CONSTEEL TECHNOLOGY

ORI Martin uses the Consteel technology, which allows the continuous loading of the scrap into the electric arc furnace through a special mechanical conveyor that allows the preheating of the scrap with greater energy efficiency. Furthermore, this technology brings considerable advantages both for the lower consumption of electricity and for the problems related to the environmental impact (reduction of the plant's acoustic impact and secondary emissions due to the reduction of scrap loading with buckets) and for a better control of the radioactivity of the incoming scrap.

REDUCTION  
OF EAF DUST  
DISPERSION

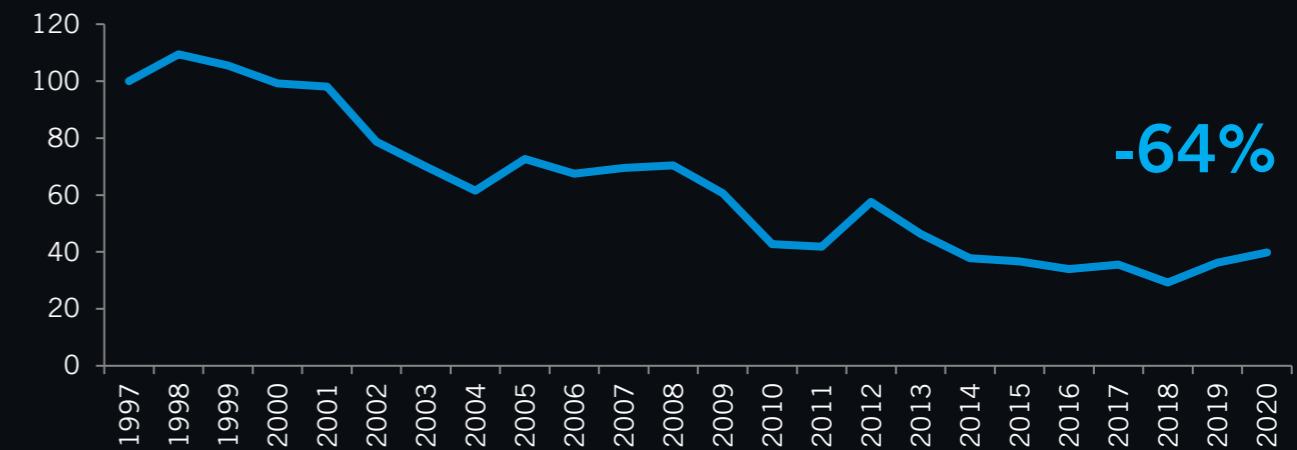
HEAT  
RECOVERING

ACOUSTIC  
IMPACT  
REDUCTION

# WATER RECYCLING

**-64%**  
FRESH WATER  
CONSUMPTION  
IN THE LAST  
20 YEARS

Water is amongst the most monitored resources by ORI Martin as a vital asset to be preserved. Large amounts of water are required to cool the furnaces in steelmaking. Water that comes into direct contact with steel during the cooling phase require a treatment to eliminate metal scale and oils. In such case, water is conveyed to special collection tanks to be sent to the purification plants (one for the steel shop and one for the rolling mill), equipped with settling tanks and sand filters. The continuous investments in water recycling allowed to reduce by more than 60% in 20 years the specific consumption of water per ton of hot rolled product.



Base year: 1997



# RENEWABLE ENERGY

ORI Martin supports the development of renewable energy in Italy.

In October 2019, in fact, The Company finalized a 5-year Power Purchase Agreement (PPA) with a Swiss energy trader (DXT Commodities) and a German investment fund (KGAL Investment Management).

That agreement foresees energy production through a 53 MW photovoltaic power station installed in Sardinia and launched in November 2020.

From that moment, 10% of the facility's energy needs will come from renewable sources, exploiting solar energy.

The plant will allow a significant reduction in CO<sub>2</sub> emissions into the atmosphere, equal to the effect that would be obtained by planting a forest of about 50,000 trees.

In 2018, approximately 1 MW of solar panels for the production of electricity were installed in the production sites of San Pietro Mosezzo (NO) and Cologne (BS), which will save 8,800 tons of CO<sub>2</sub> emissions over the coming 20 years.

**1** MLN €  
INVESTMENT  
IN 2018

**1** MW  
INSTALLED

**8,800** TON  
CO<sub>2</sub> SAVING  
OVER THE  
NEXT 20 YEARS

# EAF GAS TREATMENT

Brescia plant is part of the Emission Trading System (EU - ETS), an instrument set up by the European Union Directive 2003/87, aimed at monitoring and progressively reducing greenhouse gas emissions from the highest energy-intensive industrial sectors.

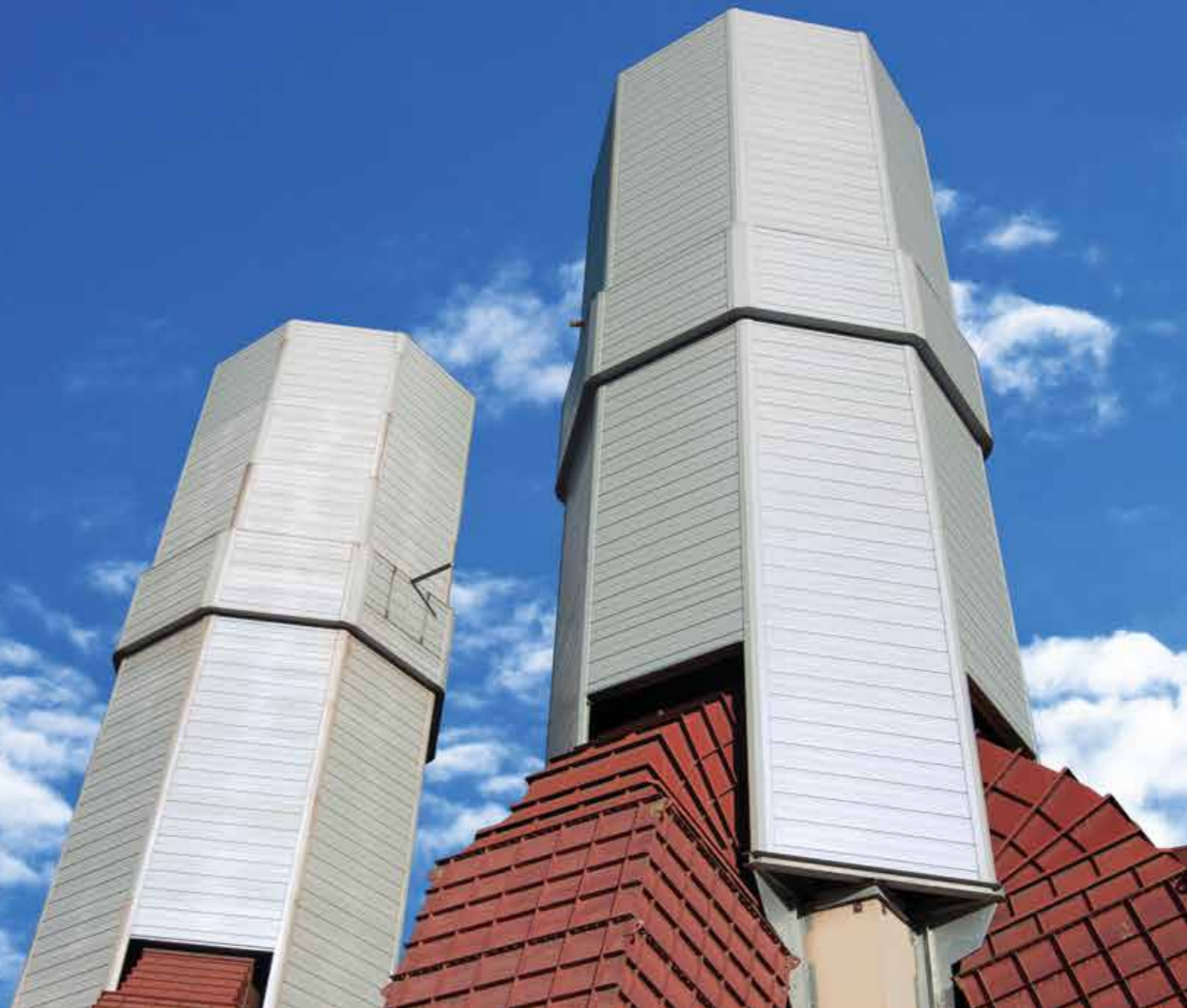
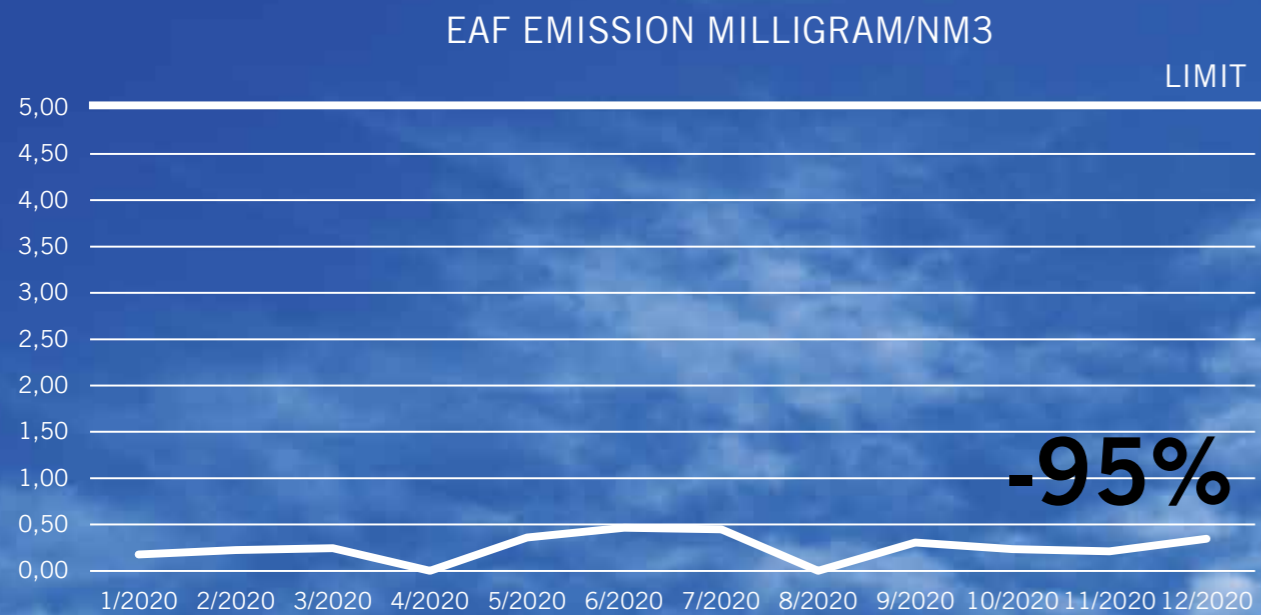
The ETS system, designed to tackle climate change, rests its foundations on a mechanism called “cap and trade”. This mechanism caps the presence of a maximum limit of tons of CO<sub>2</sub> that industrial plants subject to this system can emit. Based on the actual quantity emitted and declared annually, the subjects receive or purchase emission quotas that can be exchanged through a sale on the global CO<sub>2</sub> market.

**7** MLN€  
INVESTMENTS  
ON NEW  
FILTER  
SYSTEM

**2** MLN€  
SPENT EVERY  
YEAR FOR EAF  
EXHAUST GAS  
CLEANING

**100%**  
RECYCLING  
OF EAF DUST

**<1** MG/NM<sup>3</sup>  
EMISSION OF  
PARTICULATES



# NOISE REDUCTION

ORI Martin pays great attention to the acoustic impact caused in the surrounding area by the activities of the plant and the movement of heavy vehicles.

For several years, the Company has been intervening in the most critical areas of the plant by installing soundproof walls and doors with the aim of containing the noise produced by the systems.

These interventions provided compliance with the noise pollution limits set by the Municipality.

**1.5** MLN€  
INVESTMENT  
OVER LAST  
3 YEARS

STEEL AND  
STONE WOOL  
INSULATION,  
OVER **10** CM  
THICKNESS  
PANEL

**20,000**  
SQM OF  
SURFACE



# O<sub>2</sub>XYGEN PIPELINE

In 2018 Air Liquide installed a new 5 km long oxygen pipeline that allows the direct supply of oxygen to the ORI Martin site, replacing the use of tankers for the supply of liquid gas.

**1,250**  
JOURNEYS/  
YEAR OF  
ARTICULATED  
LORRIES

**160**  
KG/YEAR  
PARTICULATE  
EMISSIONS  
FROM ROAD  
TRANSPORT

**2,100**  
KG/YEAR  
NITROGEN  
OXIDES  
FROM ROAD  
TRANSPORT

**270**  
TON/YEAR CO<sub>2</sub>  
FROM ROAD  
TRANSPORT

**4,000** TON/YEAR  
CO<sub>2</sub> DUE TO THE LACK  
OF NECESSITY  
FOR LIQUEFACTION

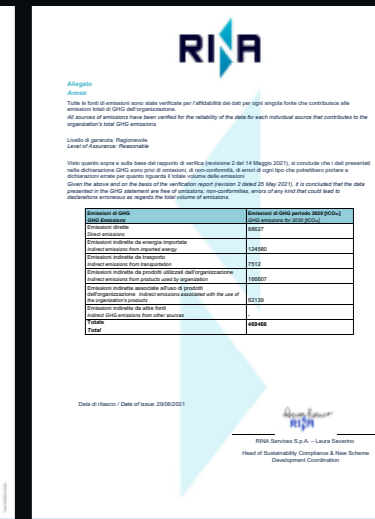


# CERTIFICATIONS

Inspired by the principles of ISO 14064-1:2018 standards and through third-party certification, every year the Company reports greenhouse gas emissions expressed in CO<sub>2</sub> equivalents, classified by product type.

Items certified:

- Billets
- Hot rolled /annealed Wire rod
- Hot rolled / annealed / Q&T Bars



# ORI MARTIN GROUP



Steel mill and rolling mill for coils and bars

Via C. Canovetti, 13 - 25128 Brescia - Italy  
Tel. +39 030 39991 - Fax +39 030 2000924  
info@orimartin.it

Round, flats and square bars, billets for forging

Via Domenico Ghidoni, 169 - 25035 Ospitaletto (BS) - Italy  
Tel. +39 030 6841411 - Fax +39 030 643385  
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ori.martin.france@wanadoo.fr



Cold finishing of bars and coils

Via Kennedy, 64 - 25033 Cologne (BS) - Italy  
Tel. +39 0307058311 - Fax +39 0307050490  
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Cold finishing of bars and coils

Via Verdi, 26 - 28060 S. Pietro Mosezzo (NO) - Italy  
Tel. +39 0321530611 - Fax +39 0321530627  
info@novacciai.it



**MECCANICA TRAFILATI**  
MARTIN

Deep hole drilling for bars

Via Kennedy, 54/56 - 25033 Cologne (BS) - Italy  
Tel. +39 030 2531240 - Fax +39 030 2538091  
info@orimartin.it



**SIDERURGICA LATINA**  
MARTIN

Drawing and stranding of medium-high carbon wires for mechanical springs, PC wire and PC strand

Via Oger Martin, 21 - 03024 Ceprano (BS) - Italy  
Tel. +39 0775 91991 - Fax +39 0775 9199222  
info@slmspa.com



**TENSION TECHNOLOGY**  
MARTIN

Design and construction of post tensioning system

Via A. da Giussano, 9 - 20011 Corbetta (MI) - Italy  
Tel. +39 02 97277811 - Fax +39 02 97277523  
info@ttmsrl.it



**SAPES**  
DRIVING COMPONENTS

Cold forging and hot forging of driving components for the automotive, the construction machinery and the agricultural vehicles

Via E. Miglio, 11 - 38089 - Storo (TN) - Italy  
Tel.: +39 0465 686100 - Fax +39 0465 686474  
sapes@sapes.eu



**TRAFILERIA LARIANA**  
Drawing Steels

Cold drawn wires in coils and bars

Via Giuseppe Parini, 1T - 23890 Barzago (LC) - Italy  
Tel. +39 031 850438 - Fax +39 031 852479  
info@trafilerialariana.com



**AUTOTRASPORTI**  
BETTELLI RUGGERO

Transport of hot rolled steel and scrap in Italy

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Information and pictures of this book are not binding and may be subject to changes.



**O.R.I. Martin**

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