

omer

RAILWAY INTERIORS



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We operate internationally in the design and manufacture of innovative rail components with high engineering content conceived to be fitted on high-speed, regional and metropolitan trains

OMER AT A GLANCE



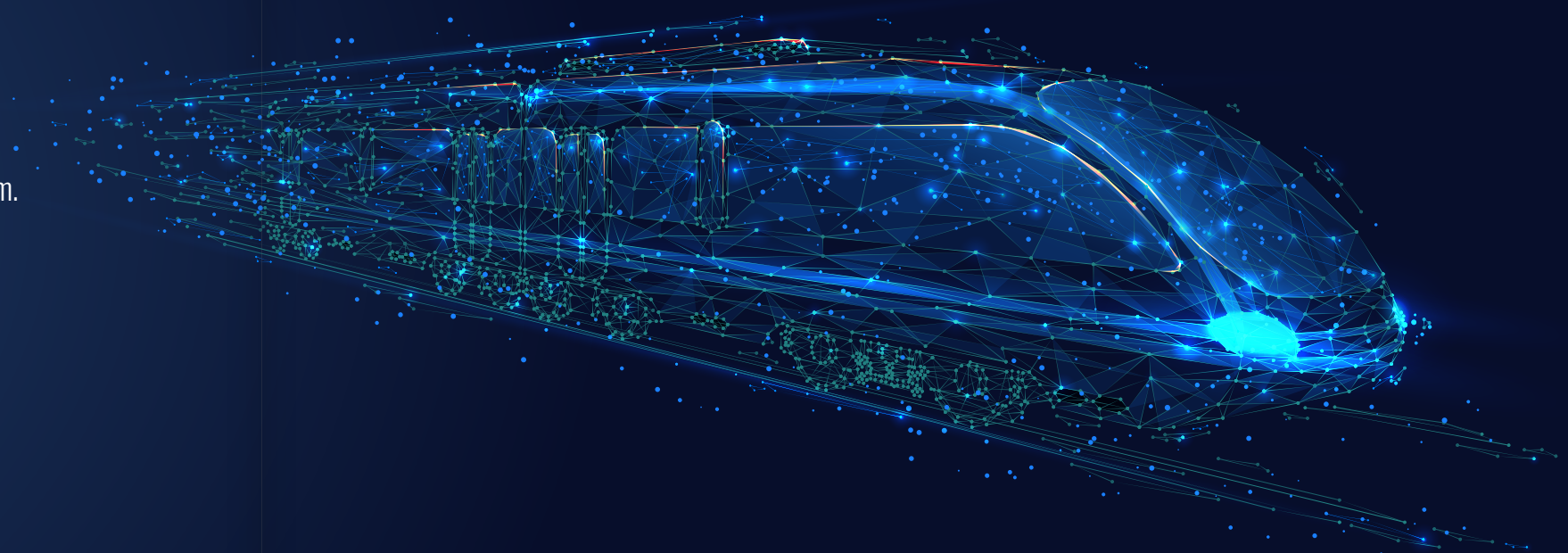
Active since 1993 in rolling stock material manufacturing, we are now present with **3 independent production sites** (2 in Italy and 1 in the USA), fully integrated and digitized, for a total of **7 production facilities** and over **82K SqM** of total area.

We act as a partner of rolling stock manufacturers, engaged in the construction of complete railway vehicles required by railway transport operators.

The Group counts on about **350 dedicated staff**, leaded by a highly experienced management team.

Our products are **Interiors, Doors, Cabins for Toilet Modules** and **Fairings**, intended for high-speed, regional and underground trains.

The Group's commitment is also clear under an ESG profile: the prevalent use of aluminum inside the trains is, in fact, oriented towards high recyclability of materials, energy costs reduction and respect for the environment.



INTERIORS



DOORS



TOILETS



FAIRINGS

WE ARE PROUD TO WORK FOR



ALSTOM

HITACHI
Inspire the Next

 **KNORR-BREMSE**

SIEMENS

STADLER

 **TRENITALIA**





CERTIFICATIONS



International Railway Industry Standard

IRIS Rev.03 – ISO/TS 22163:2017

ISO 9001:2015

ISO 14001:2015

EN 15085:2007 Part 2 – Level CL1

ISO 3834-2:2005

DIN 6701







DESIGN & ENGINEERING



We have a strong vocation to production, therefore the activity developed by the Design and Engineering Department, made up of **30 engineers**, aims to identify technical solutions that minimize the production costs of the final product and also aim to achieve the best cost/benefit compromise, in full compliance with the requirements of the Customer and of the regulations in force.

Each proposed technical solution can be supported by the creation of prototypes of individual components and mockups for verification with the case structure and the systems installed on it.

3D MODELING

FEM ANALYSIS

PRODUCT INDUSTRIALIZATION

CAD / CAM PROCESS MANAGEMENT

TOOL DESIGN AND MANUFACTURING

TEST TYPING



3D Modeling

We consider 3D modeling the crucial point of the entire design-production system and uses it in all the phases of the project to:

check the geometries of the developed parts

make sure it interfaces with other vehicle systems or subsystems

extract information necessary for FEM checks

reduce prototyping and packaging management times

Solid Edge™ and **CATIA V5™** are the main software used for three-dimensional modeling and for the aforementioned activities



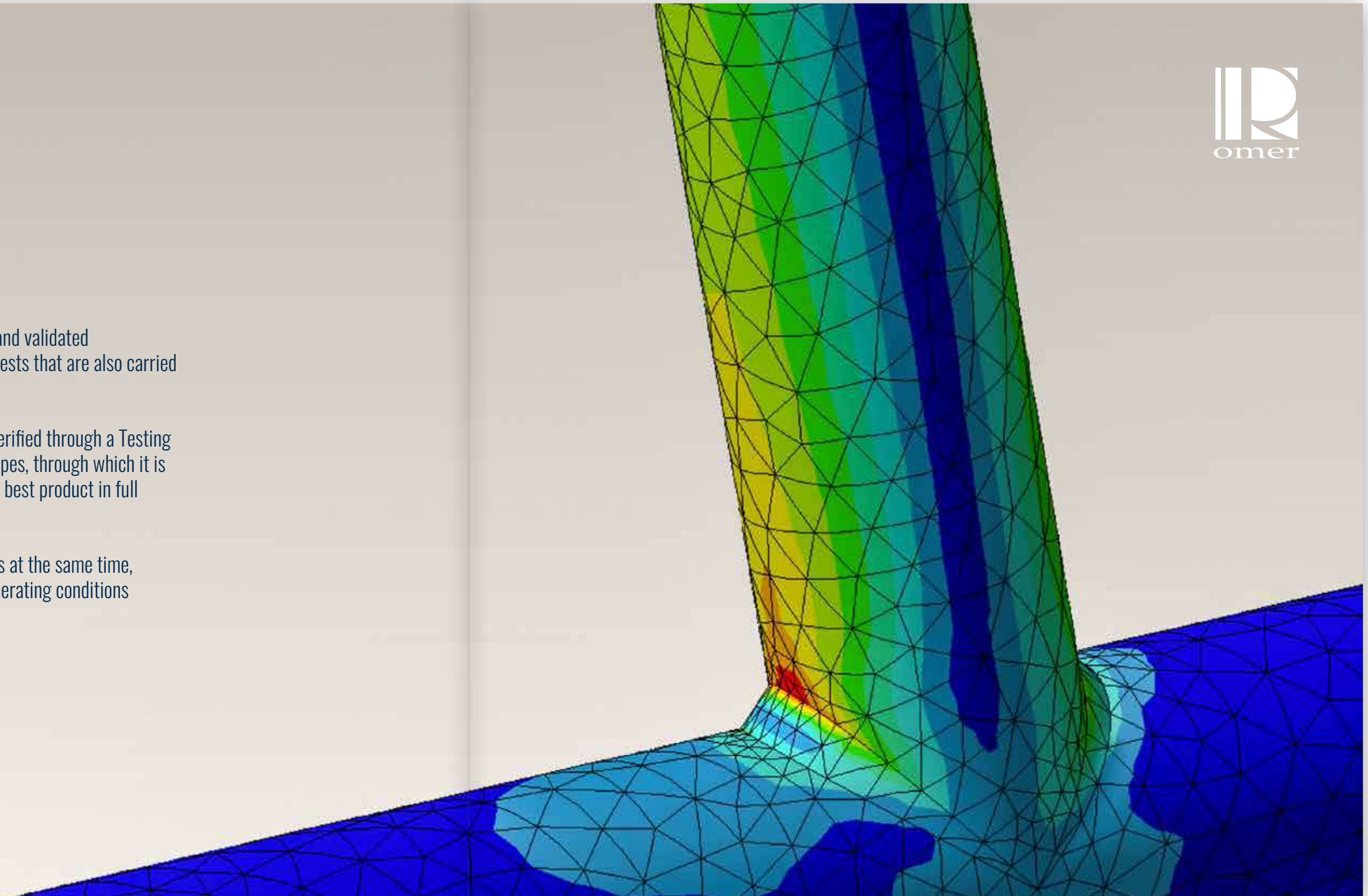


FEM Analysis

In OMER the design process is supported, verified and validated by structural **FEM analysis** and by experimental tests that are also carried out in qualified European laboratories.

The results of the FEM Analysis are subsequently verified through a Testing phase consisting of laboratory tests on real prototypes, through which it is possible to refine the design solution, obtaining the best product in full satisfaction of the customer's requests.

The tests, geared to evaluating one or more aspects at the same time, are conducted with a view to simulating the real operating conditions to which the product will be subjected.



FAST SUPPLY CHAIN ACTIVATION





THE WORLD CLASS FACTORY

Carini, Italy

80,000 square meters
6 fully integrated and digitized production units
in line with the Industry 4.0 rationale

The WORLD CLASS FACTORY

80,000 square meters and 6 fully digitized production units in line with the Industry 4.0 rationale



1 megawatt photovoltaic system

More than 60% of the energy needed for our production comes from renewable sources



INBOUND STORAGE



BASE MANUFACTURING

Laser cutting
Cnc machining



FORMING

Moulding and Bending
Cold Forming
Warm Forming®



BODY IN WHITE

Welding
Bonding
Grinding

SHORT SUPPLY CHAIN

ZERO OUTSOURCING

MINIMIZED ERRORS

QUICK TIMES



PAINTING

Surface pretreatment
Liquid and Powder Painting



ASSEMBLING

Assembly
Testing



QUALITY CONTROL

From raw material to the finished product
In line with sector regulations (IRIS)



DELIVERY

Packaging
Shipping logistics

In the **Carini industrial plant**, all the machines are fully integrated and digitized.
Each phase is monitored and managed through an **integrated computer system** that ensures a stringent control of production and an accurate traceability of materials.

The machines, which are programmed remotely by the specialist CAD-CAM office, guide the operators through the sequences to be performed.
Accurate data recording and subsequent analyses **constantly maximize production efficiency.**



Production

FROM RAW MATERIAL TO THE FINISHED PRODUCT

For each project, the processing phases are defined by **a production roadmap** established in the design phase, on the basis of a time schedule contractually agreed with the client

Production is mainly characterized by the processing of rolled aluminum and steel alloys and extruded light alloys and is developed through the following steps



**INBOUND
STORAGE 1**





TRUMPF

2 BASE MANUFACTURING



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3 FORMING

Moulding and Bending

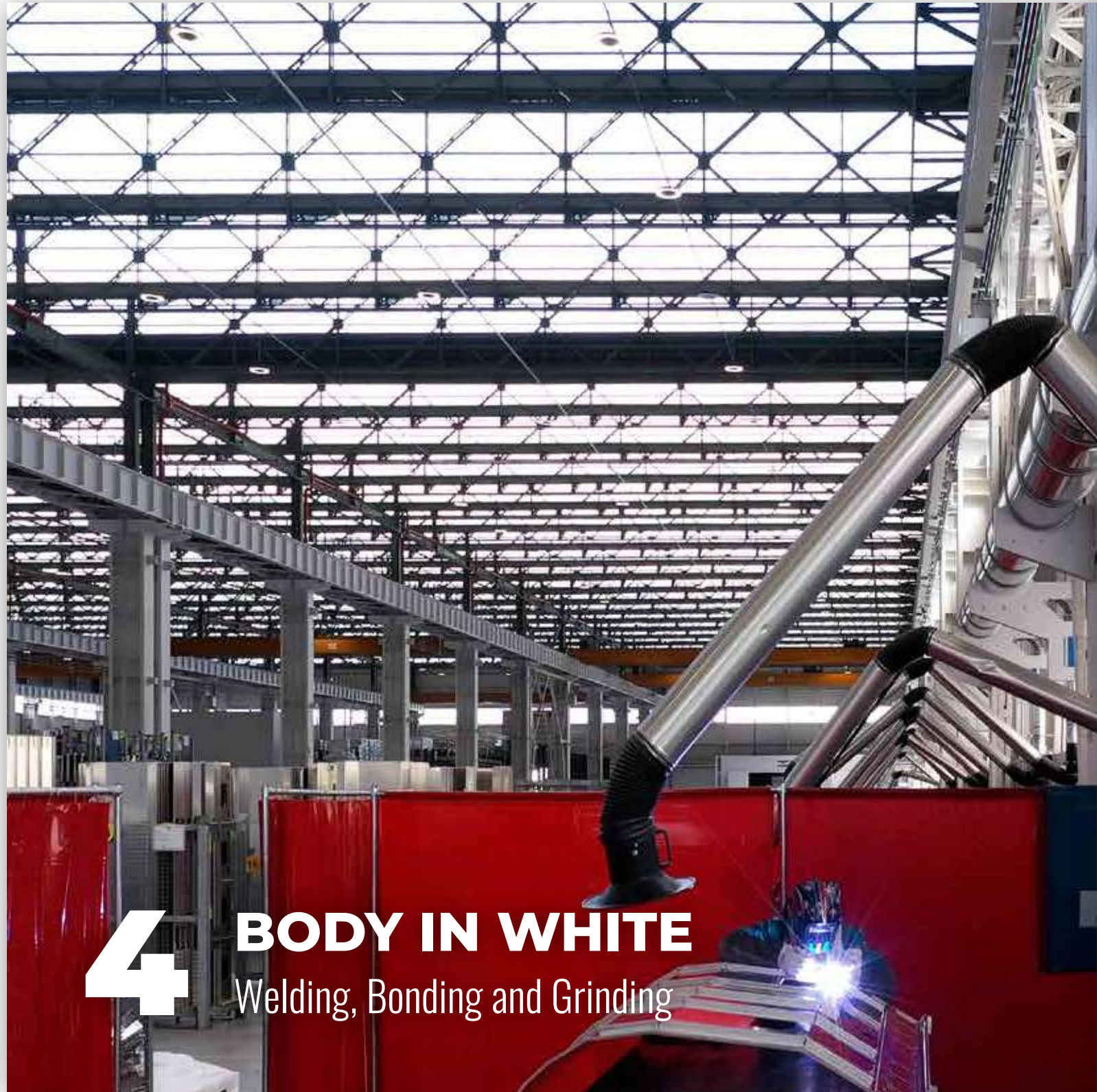




3 FORMING

Cold and Warm®



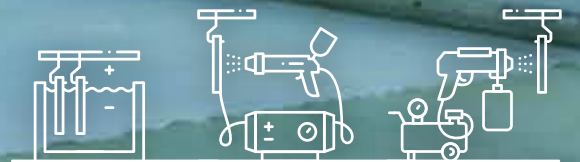


4 BODY IN WHITE

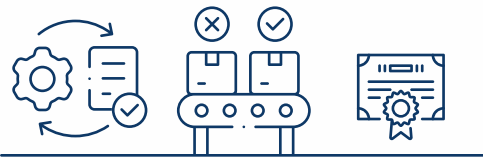
Welding, Bonding and Grinding

5 PAINTING

Liquid and Powder







7 QUALITY CONTROL

From raw material to the finished product
In line with sector regulations (IRIS)

**SHORT SUPPLY CHAIN
ZERO OUTSOURCING
MINIMIZED ERRORS
QUICK TIMES**



8 DELIVERY
Packaging and Logistics





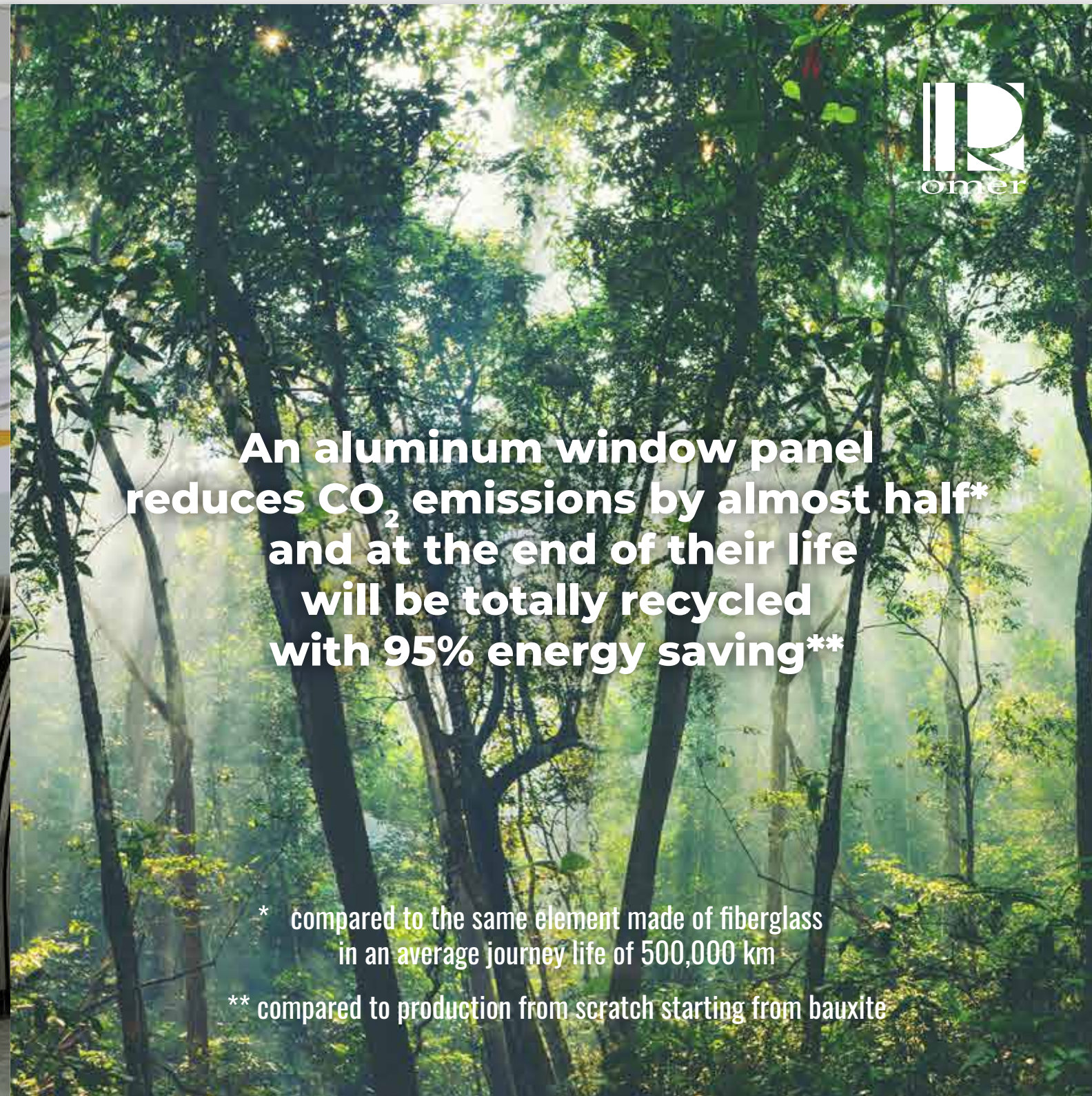
TOWARDS SUSTAINABILITY





At OMER we have created
a hybrid technology
exclusive for the railway sector
that combines the costs of **Cold Forming**
and the advantages of **Super Forming**
called **WARM FORMING®**

The accurate definition of the process and variables involved in **WARM FORMING®**
allows for a mass production of defect-free complex components



**An aluminum window panel
reduces CO₂ emissions by almost half*
and at the end of their life
will be totally recycled
with 95% energy saving****

* compared to the same element made of fiberglass
in an average journey life of 500,000 km

** compared to production from scratch starting from bauxite



1 MEGAWATT PHOTOVOLTAIC SYSTEM

More than 60%
of the energy needed
for our production
comes from
renewable sources

WE GIVE CONCRETE SHAPE TO EVERY IDEA OF COMFORT

From Subway to High Speed Trains

HIGH SPEED INTERIORS

Refined design, high mechanical resistance, use of innovative materials, weight optimization.

These are the main strongholds of OMER's planning and production of structural and design components for high-speed line trains, capable of reaching peaks exceeding 300km/h.

The combination of design objects, such as aluminum components with painted finishes and ultra-light sandwich panels, and structural items withstanding high mechanical stress, such as products made with aluminum profiles, shows OMER's extreme versatility and its competitive stand in the sector, at Italian and European level, from design to production.

Frecciarossa ETR1000

for HITACHI

Complete furnishings of the Meeting Area
(side panelling, ceilings, glass walls, partition walls, swivel seats, table)

Compartment side lining panelling

Transverse walls at compartment ends

Fairings

ETR500

for ANSALDO BREDA

Panels below the windows

Ceiling panels, lighting channels and side ceilings

Toilet entrance door

Complete furnishing for the vestibule areas

ETR700

for ANSALDO BREDA

Ceiling panels and Side ceilings

Panels below the windows and Window curtains

Transverse walls at compartment ends

Glass walls

Our products can also be found in the following High Speed Trains

Avelia Amtrak ALSTOM

ICX BOMBARDIER

Italo NTV

TGV 2020



SINGLE AND DOUBLE-DECK **REGIONAL TRAINS** **INTERIORS**

OMER has an established presence in the Italian and European railway sector, in the design and production of double deck carriages, a cornerstone in regional transport.

Its choice of state-of-the-art technical solutions has allowed it to take part in the co-design and supply of coatings for double-decker trains for the French regional transport.

Our domestic pride is the **CDPTR** project, consisting of double-decker carriages for Trenitalia regional transport. OMER has contributed to the project in terms of modernization as well as compliance to current safety regulations.

The evolution of high-frequency trains has introduced the **TSR** project, the platform for regional transport dedicated to the high-frequency passenger lines of Ferrovie Nord and the Milan railway link.

ROCK | CARAVAGGIO for HITACHI

Design and production of all the carriage furniture
(seats excluded)

Toilet design and production

Regio 2N for BOMBARDIER

Lower and upper passenger compartment
(window panels, technical pillars)

Vestibule ceilings

Cover for heating elements

Smart Coradia for ALSTOM ITALIA

Window panels design and construction

Our products can also be found in the following single-deck and double-deck regional trains

Dosto BOMBARDIER

RER NG BOMBARDIER

Vivalto ANSALDO BRED

TSR ANSALDO BRED

West of England HITACHI

West Coast Partnership HITACHI

AMR HITACHI

Caltrain STADLER

Calidot SIEMENS

Revamping semipilota Z1 ALSTOM

IC2- IC4 ANSALDO BRED

X'Trapolis Australia ALSTOM



SUBWAY INTERIORS

The light alloy furnishings we manufacture for urban mass transport convoys are a combination of solidity and design.

OMER's technology, also thanks to its ongoing research on innovative materials, helps finding reliable construction solutions with a view to standardizing furniture modules as much as possible, so as to meet the needs of customers.

Stockholm Metro C30 for BOMBARDIER

Design and production of passenger compartment
(window panels including air duct, kick plate paneling, technical pillars, end wall)
Ceilings, Lining of cab's control panel

Rome Metro for ANSALDO BRED A

End wall fittings, Front end wall fittings, Ceilings, Valances

Brescia Metro for ANSALDO BRED A

Handrails, Cupboards, Side panelling

Melbourne Metro X'Trapolis 100 for ALSTOM

Air channels, Ventilation grids and roof panels, Lighting channels

Paris Metro MF19 for BOMBARDIER

Carriage furniture design and production
(window panels, technical pillars, under seat box, driver desk cabin furniture)

Our products can also be found in the following subway trains, trams and people moovers

Riyadh Metro ANSALDO BRED A

Neoval SIEMENS

London Underground DTUP SIEMENS

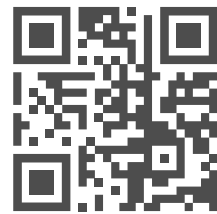
Citadis ALSTOM

Milan Metro ANSALDO BRED A





FORWARD TO THE FUTURE



OMERSPA.COM