





Mission

The mission of Acciaierie d'Italia Research & Development center is not only to support the competitiveness of the Group's product quality and process innovation but also to accompany major ongoing transitions, in energy, digital and environmental fields, through projects aimed at energy efficiency and decarbonization of industrial processes.



Acciaierie d'Italia Research and Development Center in Taranto



2,240 m²

Research and Development Center size



25

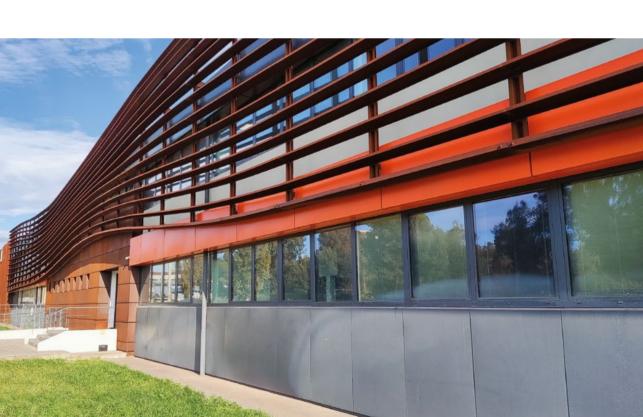
Researchers



15

Laboratories

12
Laboratory technicians



A concrete path of innovation

ENERGY TRANSITION

The energy projects are aimed at **decarbonizing the production processes** of the Taranto plant and of the overall steel industry.

- **BIOCODE**: Vegetable biomass in partial replacement of coal
- **REFOS 2**: Solutions for the production of renewable energy
- **ELEVATE**: Capture of CO₂ from iron and steel gases
- CARBONATAZIONE: CO₂ mineralization

CIRCULAR ECONOMY

ADI is developing several procedures aiming at reusing secondary raw materials and at enhancing by-products.

- POWERSLAG: Use of by-products for sustainable water purification
- **ZINCVAL**: Treatment of residues for zinc removal and recycling
- CATSCORIA: Use of steelmaking flags as catalyzer to produce hydrogen and biofuels

The driver of a sustainable growth



14

Project submissions in 2022



6

Activities to start by April 2023

DIGITAL TRANSITION

The digitalization activities are crucial to support decarbonization, energy efficiency and technological innovation processes.

- **H2ENERGYNET**: Impact model of decarbonization processes on the electricity grid
- DEBATE: Machine learning for predictive maintenance of galvanizing processes
- QUICK TAPPING: Machine learning to improve the hot metal-steel conversion process

PRODUCT AND PROCESS DEVELOPMENT

The Group is always committed to study and supply **innovative and performing products** to address the **new needs of the various production sectors**.

- Production of pipes for transport of hydrogen and its mixtures
- Development of **products for the automotive** sector
- Development of high resistance steel grades for naval and infrastructure applications
- Support to operations for process optimization and product development



13

Research partners



12.5

Million euros investment



25

Internal activities for product and process development

