







# ÇİMSA CEMENT INDUSTRY

**GREENET Brokerage Event 6th May 2025** 







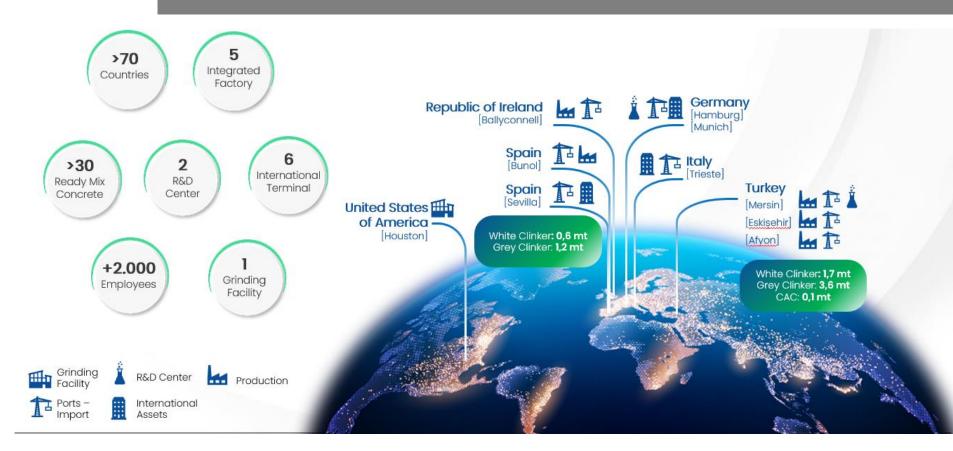
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### **DESCRIPTION OF THE ORGANISATION**









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- 2000 Formula Center established as Research & Application Center in Mersin Plant
- 2017 First R&D Center of the Turkish cement sector
- 2021 R&D Pilot Plant was settled
- 2023 Sabanci Technology Center established in Munich, TUM Campus

#### **Products**;

- White Cement
- Grey Cement
- Ready Mixed Concrete
- Special Products (CAC)





### **COMPLETED PROJECTS**





- Energy Efficiency
- Development of high thermal conductivity materials for shallow geothermal energy systems
- 2017 2021



- Circularity
- Production of construction materials with using recycled secondary raw materials
- 2020 2024



- Digitalization
- Decreasing environmental footprint of industrial processes with digital solutions
- 2019 2023



- Material Science
  - Development of smart alloys and coatings resistant to high temperatures and mechanically harsh conditions
- 2020 2024

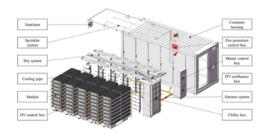


## Greenet



The network of Horizon Europe Cluster 5 National Contact Point.

## **Energy Planning Optimization – Al Based**







## Project Idea

### Energy Planning Optimization – Al Based

### Variables:

Solar Power Plant

Waste Heat Recovery Plant

Storage (Battery)

Weather Conditions

Hourly prices for grid consumption

#### **Units:**

Ram Mills (2)

Coal Mill (1)

Kilns (2)

Cement Mils (3)

#### Goal:

Predicting Solar and WHR productions using process and weather variables.

Optimizing Production Scheduling

Cost optimization by using AI





## Project Idea

- The project focuses on forecasting solar and WHR energy production using real-time process and meteorological data.
- These forecasts are embedded into production planning to enable dynamic scheduling and energy cost optimization through Al-driven decision support systems.









## Project Idea

- We leverage advanced AI and machine learning models trained on real-time and historical process and weather data.
- Our patented optimization algorithms and robust data infrastructure across all plants enable seamless, real-time industrial AI applications.







### **THANK YOU**

