

# Other projects: MODIPLANT & ProSynteg



Today, reheating furnaces in steel production rely mainly on CH<sub>4</sub> burners, contributing heavily to CO<sub>2</sub> emissions. MODIPLANT aims to decarbonize this critical process by introducing a **hybrid heating approach**, combining gas burners with electrification through innovative systems powered by **renewable electricity (RES)**. This modular and flexible solution allows a progressive switch to green energy, reducing fossil fuel dependency without compromising productivity or quality.

Project duration: 54 months



ProSynteg targets the adaptation of a pilot plant to produce **hot H<sub>2</sub>-rich syngas** via **dry reforming of coke oven gas and CO<sub>2</sub>** from oxy-combustion. The process is designed for flexibility, potentially incorporating alternative carbon sources (biomass, waste) and is supported by lab-scale studies, modelling, LCA, and economic assessment to validate its industrial scalability and environmental benefits. A long-term goal is to exploit the calorific value of coke breeze to produce an H<sub>2</sub>-rich syngas that can be injected into blast furnace to reduce CO<sub>2</sub> emissions.

Project duration: 42 months

