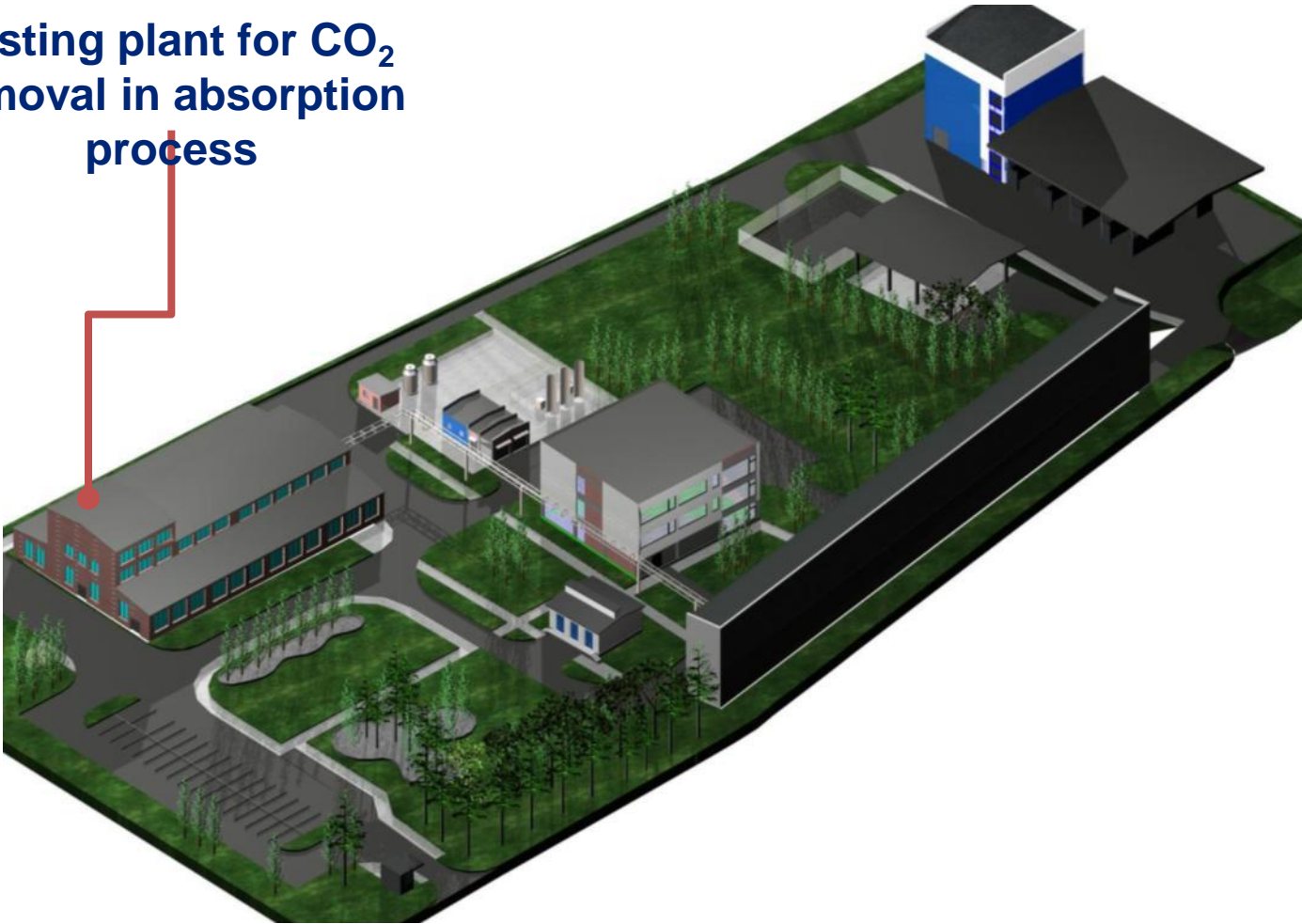


CLEAN COAL TECHNOLOGY CENTRE

Testing plant for CO₂ removal in absorption process



INNOVATIVE ECONOMY
NATIONAL COHESION STRATEGY



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



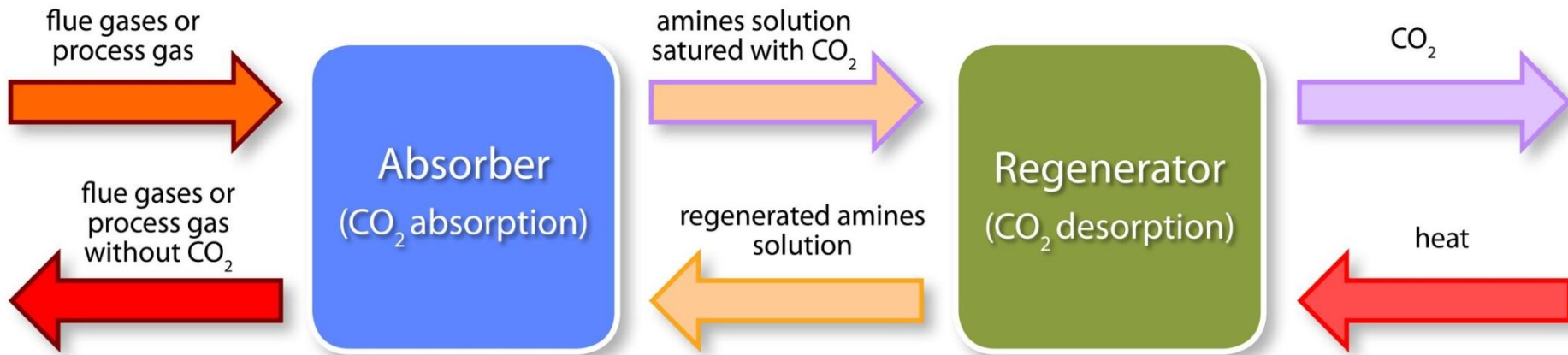
Testing plant for CO₂ removal in absorption process

The plant is designated to investigate CO₂ removal from the flue and process gases through chemical absorption in amine solution.

The plant is equipped with the following items: absorption and desorption columns, set of heat exchangers and electric heater.

To the installation are delivered: technical, process and flue gases from the selected testing plants:

- Testing plant for pressurized gasification and oxy-combustion of solid fuels in Circulating Fluidized Bed
- Testing plant with turbulent combustion chamber



Technical characteristics

Flowrate of gas supply	20 - 100 m ³ /h
Amount of absorbent in a loop	250 dm ³
Working pressure	atmospheric installation
Efficiency of CO ₂ removal	about 90%
Nominal regenerator working temp.	130°C
Columns dimensions	height 7 m, diameter 0,265 m
Control system	automatic

Testing plant for CO₂ removal in absorption process

RESEARCH AREA

Development of more efficient solvents for CO₂ absorption.
Reducing energy intensity of the CO₂ removal from the flue gases and process gas.
Testing of the new mixtures of absorbent solutions (including ionic liquid).

SUBJECT OF COMMERCIALIZATION

Technologies of CO₂ removal from the flue gases by means of absorption for zero emission power production.
Technologies of CO₂ removal from process gases for zero emission energy and fuel production.
Support for industrial implementation in Poland of CO₂ removal from the flue gases through absorption.



POTENTIAL RECIPIENTS OF THE RESEARCH RESULTS

Enterprises and institutions operating in energy sector.
Designers and suppliers of energy and environmental protection technologies.



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