

INNOVATIVE SOLUTIONS IN CONSTRUCTIONS: DESIGN OF ECO-PRODUCTS WITH ADDING-VALUE WASTES/BY-PRODUCTS GENERATED BY THE ROMANIAN INDUSTRIES

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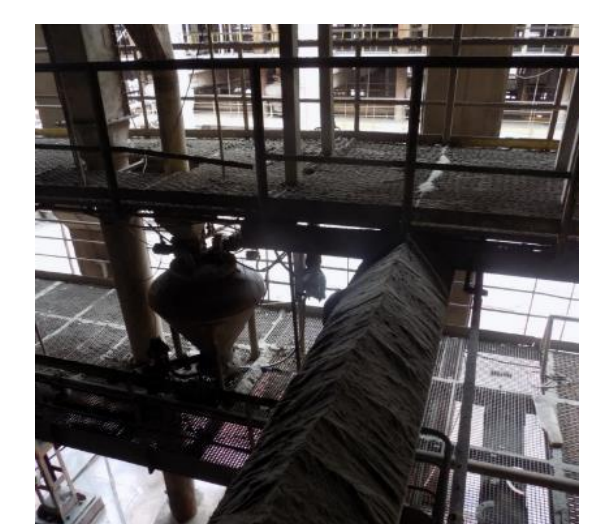
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ROMANIAN CONTEXT

I. WASTE MANAGEMENT ISSUES:
Use / RE-Use / Convert
Natural resource saving

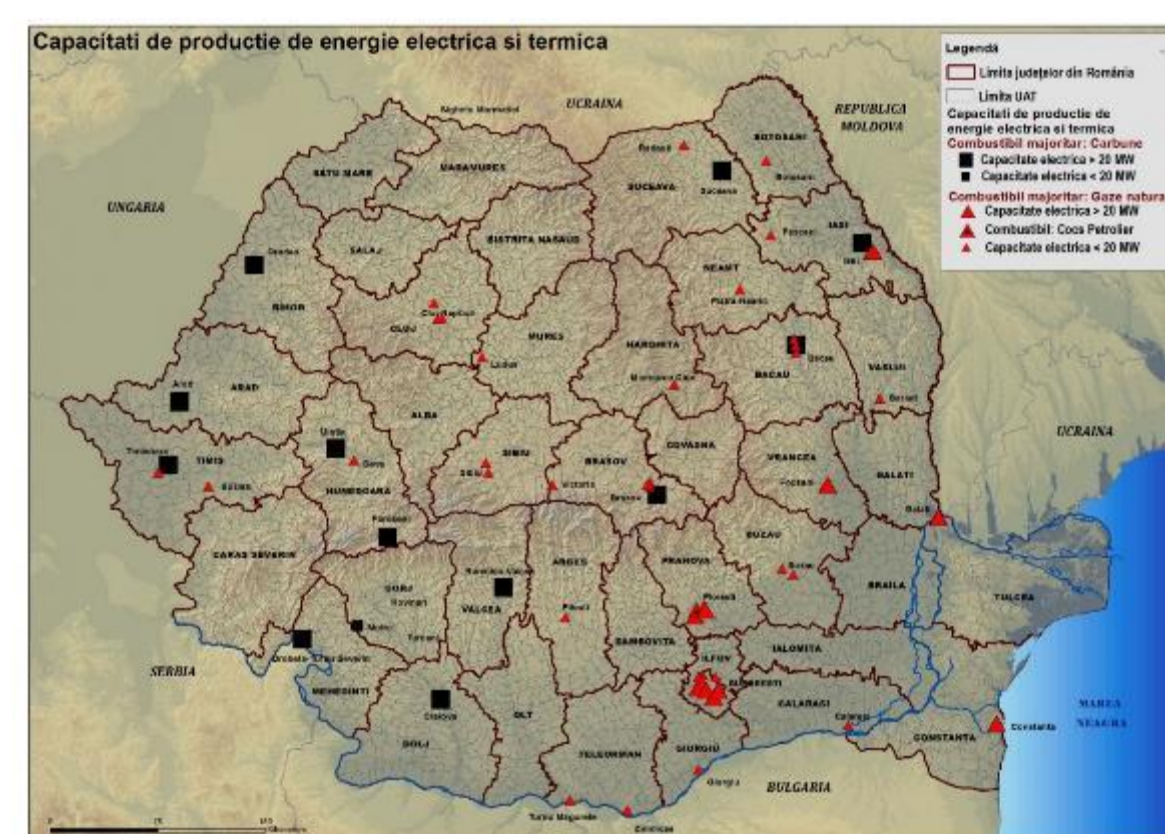


II. SUSTAINABILITY:
European and National Strategies for Circular Economy (EC) implementation

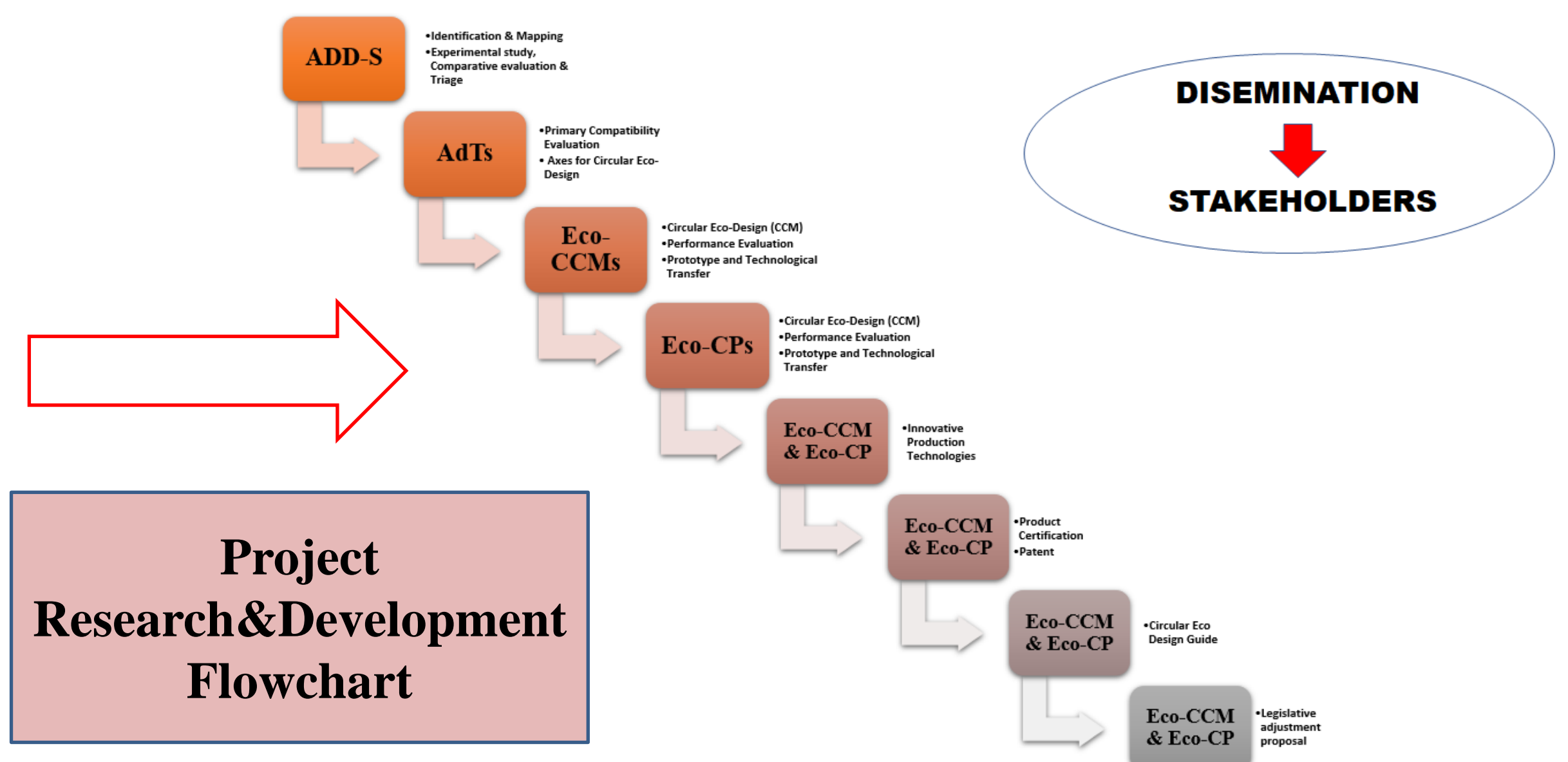


RESEARCH GOAL

Development of innovative engineering solutions for eco-intelligent construction products, with advanced functionality (materials, elements and structures, models and technologies), considering the *efficient and customized valorization of by-products and generated waste of local industries*, in the context of *National Strategy for Research, Innovation and Smart Specialization 2022-2027 regarding the transition to Circular Economy (EC)*.



Map of production entities of electricity and thermal energy and their capacities; major deposits of slag and ash waste, at national level – around 2015



Project Research & Development Flowchart

Direct relation to all stakeholders, with direct or indirect interest towards the outcomes of the study:

- The academic and research media;
- The entrepreneurs;
- The users (clients);
- The suppliers;
- The social, economic and politic compounds, local and central authorities.

Legend:

- AdT:** Target Additions (AdT), with high potential for capitalization in circular design for eco-intelligent construction products;
- ADD-S:** Additions Derived from Waste and Industrial Byproducts (inert / hydraulically latent / pozzolanic, etc.), and/or derived from Demolition and/or decommissioning of buildings;
- Eco-CCM:** Eco-intelligent Composite Materials for Constructions, with advanced functionality (Eco-Composite Materials for Constructions);
- Eco-CP:** Eco-intelligent Construction Products, with advanced functionality, made by using Eco-CCM (Eco-Construction Products)

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