

BELENUS

Lowering Costs by Improving Efficiencies of Biomass Fuelled Boilers: New Materials and Coatings to Reduce Corrosion



Key Facts



Funding Agency
EU HORIZON 2020



Project Call
H2020-LC-SC3-2018-RES-
TwoStages



Duration
03/2019 - 02/2023



Coordinator
Universidad Complutense
de Madrid



Partners

- Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (Ciemat)
- Chalmers University of Technology
- Technical University of Munich
- Doosan Babcock Limited
- Instituto Nacional de Técnica Aeroespacial
- RWE Power AG
- Sandvik Materials Technology
- Teknologian Tutkimuskeskus VTT Oy
- Vallourec Research Center Germany
- UNIPER Technologies Limited
- Tecnologia e Engenharia de Materiais
- Zabala Innovation Consulting S.A.
- EDF (as linked third party of EIFER)

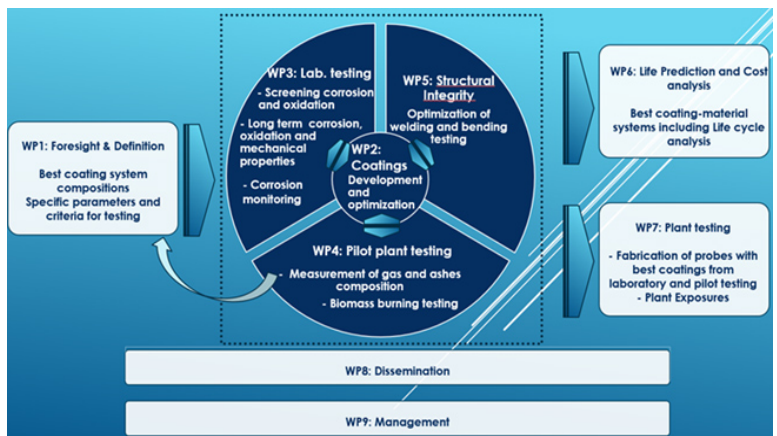


Website
<https://belenus-project.eu/>

Project Objectives

BELENUS addresses technological, economic, environmental and social challenges for next generation of biomass CHP plants. The project aims at achieving sustainable and efficient renewable energy supply while reducing CO₂ emissions.

Specific project targets include the development of holistic and disruptive solutions for corrosion prevention that will allow for improved plant operation at 580-625°C (metal temperature), reaching efficiencies of ~40-43% while increasing the lifetime of the components and the overall installation.



EIFER's Contribution

- **Preparation of the industrial tests:** Identifying suitable host sites for the cooled probes, trial tubes and the monitoring system.
- **Coordination of the industrial tests:** EIFER is work package leader regarding on-site testing and is in charge of evaluating results from lab, pilot and real-plant scale.
- EDF R&D is supporting the project providing data and complementary expertise.

Contact

Karol Witkowski
+49 (0) 721 6105 1331
karol.witkowski@eifer.org

EIFER - Europäisches Institut für
Energieforschung EDF-KIT EWIV
Emmy-Noether-Straße 11
76131 Karlsruhe, Germany
www.eifer.org

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 815147.

