

Development and transfer to bioenergy companies of an Innovative Near-Infrared spectroscopy (NIR) technology for rapid and economic analysis of the quality of local biomass in the cross-border network (BIOMASSTEP)



Resumen:

This project aims to promote the use of biodegradable biomass generated in the southern area of Andalusia and Portugal as bioenergy. To this end, this project will develop rapid and economic analysis models based on Near-Infrared Spectroscopy (NIR) technology, which will allow the quality of the biomass and its future use to be determined quickly. This means a saving in costs and time compared to conventional techniques of analysis of the biomass and will speed up the decision-making process.

Objetivos:

- Through the official characterization of local biomass, the optimization and development of a rapid, non-polluting and innovative analytical methodology, based on the application of NIR technology, for the prediction of quality parameters of this waste will be carried out.
- Technology transfer of the developed tool to enhance the innovative capacity of the activities of biomass companies, so that results of the research can be exploited commercially, and process added value (quality biomass) may be generated.
- To develop a cross-border network between research centers, universities, public administrations and companies to promote the use of quality biomass.

Objetivos contribución:

- Development of NIR chemometric models for the prediction of physicochemical parameters of local biomass quality.
- Transfer of NIR technology to SME in the bioenergy sector.
- Intellectual property protection/patent application.
- Coordination of the overall project.

Impacto:

The main expected results are:

- Development of chemometric NIR models for the prediction of physicochemical parameters of biomass quality autochthonous.
- Transfer of NIR technology to SMEs in the bioenergy sector.
- Protection of intellectual property / Patent application.
- Interregional Platform for the promotion of the use of quality biomass.
- Portal of financial aid and incentives.
- Scientific and informative articles.

Presupuesto: 627,922.84

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Presupuesto del equipo: 207,483.44

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Enlace: <https://www.biomassstep.es/>

Estado: published

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