



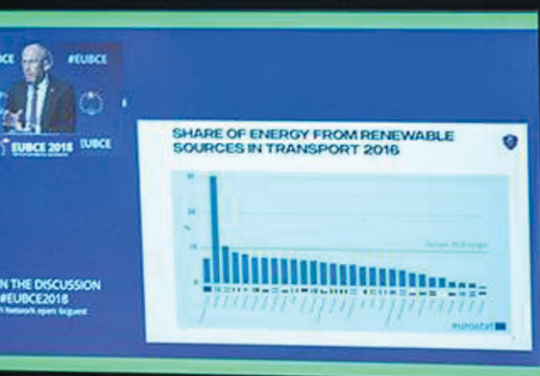
# EUBCE 2019

27<sup>TH</sup> EUROPEAN BIOMASS  
CONFERENCE & EXHIBITION

27 - 30 MAY CONFERENCE AND EXHIBITION  
31 MAY TECHNICAL TOURS

LISBON - PORTUGAL  
LISBON CONGRESS CENTER - CCL

## BOOK OF ABSTRACTS SUMMARIES



## Anaerobic Digestion of Enzymatically Treated Dairy Cow Effluent

Short introductive summary:

In Portugal, cattle production increased up to 91,000 t in 2016 (EUROSTAT, 2016) and has been contributing to the increase of methane emissions into the atmosphere. As an appropriate process for the treatment of organic effluents, anaerobic digestion is ideal to minimize this negative impact since it provides the agricultural and energetic valorisation of the substrate through the production of digestate and biogas. Heating, cooling and electricity supply constitute different applications for this energy carrier gas with a relevant social, environmental and economic importance, mainly for the region and neighbouring areas where it is produced. Dairy cow effluent is an example of lignocellulosic biomass, whose recalcitrant compounds, such as lignin and phenols, must be previously hydrolysed and made available for subsequent anaerobic digestion. The use of laccase and hemicellulase may be of great interest as pre-treatment for a wide range of pollutant compounds of effluents (Kumar et al., 2017).

Presenter: **Isabel Paula MARQUES, LNEG - Laboratório Nacional de Energia e Geologia, Unidade de Bioenergia, Lisboa, PORTUGAL**

Presenter's biography:

PhD in Biotechnology, Agricultural Engineering. She is involved in anaerobic digestion of agricultural and industrial effluents with toxic and recalcitrant fractions; designed several anaerobic reactors and got experience in industrial scale; performed three Patents; coordinates PhD/master theses.

*Biographies and Short introductive summaries are supplied directly by presenters and are published here unedited*

Co-authors:

A. Eusébio, LNEG, Lisboa, PORTUGAL  
S. Marques, LNEG, Lisboa, PORTUGAL

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Topic: 2. BIOMASS CONVERSION TECHNOLOGIES FOR HEATING, COOLING AND ELECTRICITY