APDIO

ASSOCIAÇÃO PORTUGUESA
DE INVESTIGAÇÃO OPERACIONAL

XXI CONGRESSO
Figueira da Foz
7 a 8 de novembro | 2021

io2021

ANALYTICS FOR A BETTER WORLD

LIVRO DE RESUMOS

Editado por

Samuel Moniz
Isabel Cristina Lopes
Carla Geraldes
Maria Antónia Carravilla
Ana Paula Barbosa Póvoa
José Fernando Oliveira

Submissão #67

A DEA Approach to Evaluate the Electric Mobility Deployment in European Countries

Clara B. Vaz, ângela P. Ferreira

The European green deal embodies an ambitious plan to fight the climate change, aiming to achieve carbon neutrality, by 2050. Transportation is the remaining sector where emissions are still above the 1990 emissions level, being the road transportation the biggest emitter and the main share of transport energy demand. Main elements of the strategy are the increasing efficiency of the transport system and the use of low-emission energy sources for transport, which can be accomplished by the deployment of the electric mobility. This work aims to assess the performance of European countries on the deployment of low-emission alternative energies and vehicles in road transportation. In order to achieve this aim, a model based on Data Envelopment Analysis (DEA) is used to calculate a composite indicator for several European countries, that aggregates several sub-indicators built from a dataset for the 2019 year. Results obtained indicate that most European countries have potential to improve their practices towards on better road transport sustainability, by emulating the best practices observed on the benchmarks. Additionally, the relative strengths and weaknesses of each country in terms of road sustainability are further explored.

Keywords: DEA, Performance, Electric mobility