

WHICH REGION AND WHICH SECTOR LEADS THE CIRCULAR ECONOMY CEBIX, A MULTIVARIANT INDEX BASED ON BUSINESS ACTIONS –

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The circular economy proposes a new economic model that requires changes in the habits of organizations and individuals towards sustainable production and consumption systems in line with the objectives of the 2030 Agenda. One of the most pressing challenges to accelerate the transition is measuring the progress of economic circularity. The objective of our research is the proposal of an aggregate index that allows measuring progress in the circular economy at the national and sectoral level based on the initiatives promoted at the business level. More specifically, the information provided by Circular Economy Business Index (CEBIX) makes it possible to answer the following questions: Which are the most proactive regions in circular transformation? And which are the sectors? The theoretical framework is related to the transition from the traditional linear business model to a circular one (Aranda-Usón et al 2020), the disaggregated analysis of the circular economy through the use of indicators about resource usage (Robaina et al 2020), and the study of specific business initiatives in specific countries and sectors (Aranda-Usón et al 2020). Also, the taxonomies to determine circular economy initiatives at different levels (Di Maio and Rem 2015 and 2017). CEBIX is an aggregated index that is based on the CUR matrix decomposition (Mahoney and Drineas 2009), which is applied in extensive data sources where the interest emphasizes the selection of the individuals or variables with greater relevance. We built it from seventeen indicators on environmental initiatives in a sample of 26,783 companies Thompson Reuters EIKON database, from 49 countries and 10 sectors for the period 2014-2019. The results are presented at the national and sectoral levels, comparative and dynamic, and they show that in general the level of awareness about the circular economy is low, that France and the Utility sector are leading the transformation towards the circular economy. The first positions are occupied by European countries and Japan. Our results favor a better understanding of the business actions, both at the national and sectoral level, for policy-makers, lawmakers, public administrations.