# Policy narratives of circular economy in the EU - Assessing the embeddedness of water and land in national action plans



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Published in https://doi.org/10.1016/j.jclepro.2020.125685

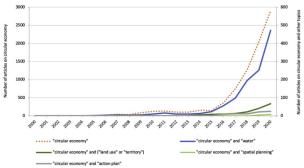
### INTRODUCTION AND OBJECTIVE

Following the challenges of the European Union (EU), member states have adopted circular economy (CE) plans and strategies, with objectives and measures to foster circularity. Although the concept of CE refers to various natural resources such as water and land, little is known on how current CE policies are integrating these environmental resources

This research studies the embeddedness of water and land concerns in the policy narrative of the CE action plans of the EU and of 9 member states.

# WATER AND LAND CONCERNS IN THE **CIRCULAR ECONOMY**

The number of scientific articles in the Scopus database crossing CE and water, increased since 2015, as did articles on CE. Still, the number is hardly comparable with the one crossing CE and materials due to a narrow conceptualisation of CE (Geisendorf and Pietrulla, 2018). In comparison, the number of papers linking CE with land, territory, or spatial planning concerns is very limited.

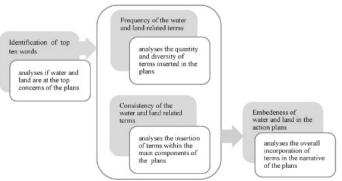


NUMBER OF ARTICLES IN SCIENTIFIC JORUNALS (SCOPUS. 2021)

# **METHODOLOGY**

Action plans play a communicative role and must craft an appealing policy message (Hossu et al., 2020) and the way they are designed and written is a relevant driver for success (Schneider and Sidney, 2009). Content features of policy documents have implications for their interpretation, implementation and influence in other policy fields.

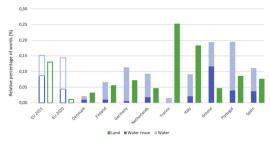
Content analysis uses quantitative and qualitative methods, and enable a comparison among documents, over places or time (Hardy et al., 2004). Our content analysis used, firstly, the frequency of water and land related terms in a set of CE action plans and. secondly, their use in the main components of these plan, which we name as consistency. The combination of frequency and consistency is derived in a measure of embeddedness, which is understood as the way a particular concern is addressed in the plans (Miedzinski, 2018; Polido et al., 2019).



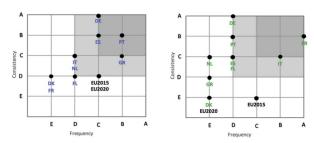
#### ANALYTICAL STEPS USED FOR THE CONTENT ANALYSIS

## **RESULTS**

The analysis of the plans shows a higher frequency of water-related terms in the national action plans of southern countries including Portugal, Greece, and Spain. The frequency of terms related to land is much more irregular among countries, but France and Italy are clearly at the forefront.



The assessment of the embeddedness of water and land related concerns in the FU and national action plans showed that: i) the embeddedness of water, and even more on land concerns in the EU action plans are rather low, especially in the most recent version regarding land; ii) the embeddedness of water is stronger in the action plans of most southern countries, and Germany; iii) the embeddedness of land and spatial concerns is poorer and more erratic, but France and Italy are at the



ASSESSMENT OF CIRCULAR ECONOMY NATIONAL ACTION PLAN (LEGEND: WATER TERMS IN BLUE COLOR, LAND TERMS IN GREEN COLOR)

#### CONCLUSIONS

The findings reveal that neither water nor land emerge as major concerns in the CE plans, in comparison to materials or waste. Also, they are not consistently associated with the typical components of the plans namely problem-showcase, objectives, strategies and measures, stakeholders, and CE performance indicators, Nevertheless, the embeddedness of water is more evident in the plans of southern countries, whereas land concerns are much more erratic. If water and land concerns, are to be at the forefront of the transition to circularity, as the literature recommends, and if these plans are expected to offer an integrated approach of the CE concept, further efforts should be made to ensure their embeddedness.

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