



EUROPEAN
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EMN Research Award 2022: The Abstracts

Green and digital transition: Assessing regional patterns of EU subsidies

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The twin green and digital transition is at the heart of the European Union (EU) post-pandemic recovery and a key element of the new EU growth strategy. In this context, the European Green Deal. Government actions, such as subsidies or grants, for green sustainable investment, appear a way to ensure such directionality and to reduce market gaps. Given the existence of substantial spatial disparities at subnational level for European regions, understanding geographical patterns of green (or green digital) projects appear to be of extreme importance to support policy design and to make policy more effective and inclusive. The present paper aims to provide empirical evidence of the geographical location and concentration patterns of ERDF (European Regional Development Fund) projects associated with green and/or digital investments. Using a novel and unique dataset of ERDF projects during the 2014-2020 period covering 238 regions of the 27 EU countries, we perform a cross-sectional analysis for the 2014-2020 ERDF projects explained by regional characteristics in 2014. Our empirical

framework is threefold: first, we apply text analysis to identify whether projects' description are associated to green and digital technologies investments, thanks to the existing taxonomy in the ERDF database. Second, we estimate a location indicator and, finally, we apply a binary choice regression model to explain the factors pertaining concentration of ERDF projects in the above-mentioned areas. We find that ERDF green and green-digital projects follow a similar spatial pattern, since they tend to be concentrated in the most polluting regions and associated to network collaboration in these areas. Both the qualification of human resources and the quality of governance in a region seem to be more relevant when explaining the location of digital technologies projects than for green (green-digital) projects. We acknowledge the amount of funds devoted to green and green-digital projects is larger than the average, and shows a lower likelihood to be supported by a micro-subsidy (lower than €25,000).

Keywords: Green finance; Twin transition; EU funds; Location.

Acknowledgments: We are grateful to Tauno Ojala and Juan-Carlos del Rio (European Commission, Joint Research Centre) for their research assistance.