



Accepted Special Session

The geography of the twin transition

(PRIN2022 GeoTwin)

Organizers: **Roberto Antonietti** (University of Padua) and **Sandro Montresor** (GSSI)

The “twin-transition” (TT), amounting to the combination of the green and the digital transition, is nowadays at the top of the policy agenda of both European and extra-European countries, which are urging its implementation for the sake of carbon (Stefan et al., 2022). However, the TT requires the development and adoption of new technologies, production, and consumption modes that draw on knowledge, skills, and capabilities unevenly distributed across regions (Bachtrögler-Unger et al., 2023). Furthermore, to a possibly greater extent than the green transition, the TT imposes direct and indirect costs to which regions are differently vulnerable (Rodríguez-Pose and Bartalucci, 2023). Overall, the TT seems to possess a geographical dimension, the contours and influencing factors of which remain predominantly unexplored. This lack of understanding poses challenges for regional and national policymakers in formulating effective strategies to promote its territorially just implementation (Garvey et al., 2022).

The GeoTwin PRIN2022 Project aims to contribute to filling this gap by supporting research activities focused on mapping and exploring the varying degrees to which different regions can: on the one hand, develop, produce, and use new digital technologies in a more sustainable manner (GREEN FOR DIGIT); on the other hand, apply new digital technologies to increase environmental sustainability (DIGIT FOR GREEN).

To position in the existing literature, foster meaningful discussions, and explore potential synergies with other research initiatives, the GeoTwin special session invites submissions that delve into the various facets of the geography of the twin transition. The list of themes includes, but is not limited to:

- i) regional development of new twin (green and digital) technologies;
- ii) green applications of new digital technologies across places;
- iii) environmental costs and footprint of new digital technologies across places;
- iv) regional twin production and consumption modes;
- v) regional skills and jobs for the twin transition;
- vi) twin transition and regional inequality;
- vii) smart specialization and regional policies for the twin transition;
- viii) measurement of the twin transition at the firm, or regional, or country level.

References

- Bachtrögler-Unger, J., Balland, P. A., Boschma, R., & Schwab, T. (2023). Technological capabilities and the twin transition in Europe: Opportunities for regional collaboration and economic cohesion.
- Stefan, M., Eckhard, S. T. O. E. R. M. E. R., Kathrine, J. E. N. S. E. N., Tommi, A., Maurizio, S. A. L. V. I., & Fabiana, S. (2022). Towards a green & digital future. JRC Science for Policy Report.
- Garvey, A., Norman, J. B., Büchs, M., and Barrett, J. (2022). A “spatially just” transition? A critical review of regional equity in decarbonisation pathways. *Energy Research & Social Science* 88:102630.