

JRC TEDAM Special Session (SS06) on: *Labour Market Transitions in the Digital and Green Economy: Regional Vulnerabilities and Pathways*

Organizers:

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Description

The digital and green transitions are fundamentally reshaping European labour markets, with profound but heterogeneous impacts across regions, sectors, and demographic groups. This special session examines how artificial intelligence, broader digitalisation, and environmental sustainability imperatives are transforming employment patterns, job quality, skill demands, and career pathways across EU territories.

We invite empirical and theoretical contributions that address one or more of the following dimensions:

1. **Occupational and Regional Exposure to Automation and Digitalisation:** Studies measuring how AI adoption, automation risk, and digitalisation affect employment outcomes across different occupations, sectors, and regions. We particularly welcome research using novel exposure metrics, network analysis of occupational interdependencies, and spatial econometric approaches.
2. **Green Transition and Labour Market Restructuring:** Research examining employment implications of the shift toward net-zero economies, including the identification of jobs incompatible with climate goals, green skills requirements, and opportunities for green job creation in different regional contexts.
3. **Career Pathways and Labour Mobility:** Analysis of feasible transition pathways for workers in occupations facing displacement risk, studies of occupational relatedness and skill transferability, and investigation of regional capacity to absorb displaced workers through alternative employment opportunities.
4. **Job Quality, Precarity, and Outsourcing:** Evidence on how structural transformations, including outsourcing, platformisation, and changing employment arrangements, affect earnings quality, labour market security, working-time quality, and in-work inequality across European regions.
5. **Territorial Disparities and Policy Responses:** Comparative studies of how regional characteristics (industrial structure, skill composition, institutional frameworks) mediate the impacts of digital and green transitions, and assessment of policy interventions to support just transitions.

We particularly encourage submissions that:

- Provide granular, region-specific evidence at NUTS-2 level or below
- Combine multiple data sources (e.g., EU-LFS, ESCO, Skills-OVATE, Eurofound surveys, administrative records)
- Apply causal inference methods, quasi-experimental design, or network analysis
- Identify actionable policy implications for EU cohesion and employment policies
- Address distributional concerns and impacts on vulnerable groups

This session aims to bridge academic research and policy practice. It brings together scholars, practitioners, and policymakers working to make the digital and green transitions more inclusive and territorially balanced across Europe.

References

- Acemoglu, D., Autor, D., Hazell, J., & Restrepo, P. (2022). Artificial Intelligence and Jobs: Evidence from Online Vacancies. *Journal of Labor Economics*, 40(S1), S293-S340.
- Ascani, A., Barbieri, N., Basilico, S., Gilli, M., Marzucchi, A., Rizzo, U., & Sciavicco, G. (2025). The Geography of the Green, Digital and Twin Occupations in Europe. ST4TE Project Report.
- Autor, D. H. (2024). Applying AI to Rebuild Middle Class Jobs. NBER Working Paper No. 32140. <https://doi.org/10.3386/w32140>
- Brynjolfsson, E., Chandar, B., & Chen, R. (2025). Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence. Stanford Digital Economy Lab Working Paper.
- del Rio-Chanona, R. M., Ernst, E., Merola, R., Samaan, D., & Teutloff, O. (2025). AI and jobs: A review of theory, estimates, and evidence. arXiv preprint 2509.15265.
- Eurofound (2021). Working conditions and sustainable work: An analysis using the job quality framework. Publications Office of the European Union.
- Farinha, T. (2025). Relatedness Diffuses Impacts from Automation: A Novel Approach to Estimate Job Risk in U.S. Cities. *Industry and Innovation*, 5, 1-23.
- González Vázquez, I., Fernández-Macías, E., Wright, S., & Villani, D. (2025). Digital Monitoring, Algorithmic Management and the Platformisation of Work in Europe. Publications Office of the European Union. JRC143072.
- Hidalgo, C. A., Balland, P. A., Boschma, R., Delgado, M., Feldman, M., Frenken, K., ... & Zhu, S. (2018). The principle of relatedness. In *Unifying Themes in Complex Systems IX* (pp. 451-457). Springer.
- Muñoz de Bustillo, R., Fernández-Macías, E., Antón, J.-I., & Esteve, F. (2011). *Measuring More than Money: The Social Economics of Job Quality*. Edward Elgar Publishing.
- Neffke, F. M. H., Otto, A., & Hidalgo, C. (2018). The Mobility of Displaced Workers: How the Local Industry Mix Affects Job Search. *Journal of Urban Economics*, 108, 124-140.
- Pinheiro, F. L., Balland, P. A., Boschma, R., & Hartmann, D. (2022). The dark side of the geography of innovation: Relatedness, complexity, and regional inequality in Europe. *Regional Studies*, 56(9), 1532-1547.
- Romero Goyeneche, O. Y., Boschma, R., & Li, D. (2025). The geography of the green, digital and twin technological and scientific specialisation in Europe. ST4TE Project Report. DOI: 10.5281/zenodo.15552558.
- Shutters, S. T., & Lobo, J. (2025). Transitioning to a green economy: Radical labor transformation or building upon existing skills? *Sustainability Analytics and Modeling*, 5, 100044. <https://doi.org/10.1016/j.samod.2025.10004>

SUBMIT ABSTRACT