

## Challenges of Sustainable Development and in Europe in the Context of Income Distribution and Social Cohesion

Sustainable development has become a central strategic priority for the European Union, particularly in the context of accelerating megatrends such as technological change, demographic transitions, labour-market restructuring and the green transformation. These processes are reshaping the socio-economic landscape of European regions, creating new opportunities for growth but also generating significant distributional pressures. While the EU has long pursued territorial and social cohesion, evidence suggests that income disparities remain persistent and, in some cases, are widening. This raises fundamental questions about the capacity of European regions—especially those structurally weaker—to adapt to ongoing transformations without compromising social cohesion or long-term development prospects.

This paper examines the relationship between income distribution, social cohesion and sustainable development across European regions. The analysis is motivated by the observation that sustainability transitions, although beneficial in the long run, may impose short- and medium-term adjustment costs that disproportionately affect less developed regions. These regions often face structural constraints such as lower human capital, weaker institutional capacity, limited fiscal space and reduced access to innovation ecosystems. As a result, they may struggle to absorb the shocks associated with technological upgrading, decarbonisation or labour-market restructuring. Understanding these dynamics is essential for designing policies that support inclusive and territorially balanced development.

The study draws on harmonised datasets including EU-SILC, Eurostat regional indicators, OECD well-being metrics and selected composite indices related to social cohesion and sustainability. The empirical strategy involves mapping multidimensional inequality across NUTS-2 regions, with particular attention to income distribution, labour-market opportunities, access to public services and institutional quality. The analysis also incorporates indicators related to the green and digital transitions, recognising that these transformations increasingly shape regional development trajectories.

The first part of the paper provides a conceptual framework linking sustainable development, social cohesion and income distribution. It highlights that sustainability is not solely an environmental objective but a multidimensional process requiring economic resilience, social inclusion and institutional robustness. Social cohesion, in turn, is understood as the capacity of societies to maintain solidarity, trust and shared norms in the face of structural change. Income distribution plays a central role in this framework, as high levels of inequality can undermine trust, reduce social mobility and weaken support for long-term policy agendas.

The second part presents an empirical assessment of regional disparities in income distribution and social cohesion. Preliminary findings indicate that regions with higher inequality tend to exhibit lower levels of social trust, weaker labour-market integration and reduced access to essential public services. These patterns are particularly pronounced in regions facing demographic decline, industrial restructuring or limited administrative capacity. The analysis also reveals that the benefits of the green and digital transitions are unevenly distributed, with more developed regions capturing a disproportionate share of new economic opportunities.

The third part of the paper examines the implications of these disparities for sustainable development. It argues that structurally weaker regions face heightened risks in the short and medium term, as sustainability transitions may exacerbate existing inequalities before generating long-term benefits. For example, the shift towards renewable energy and energy-efficient technologies may require upfront investments that poorer regions struggle to finance. Similarly, digitalisation and automation may disproportionately affect low-skilled workers, leading to labour-market polarisation and reduced social mobility. Without targeted support, these dynamics could undermine social cohesion and slow progress towards sustainability goals.

The paper contributes a critical voice to the ongoing debate on how the EU can design more inclusive and territorially balanced development strategies. It argues that achieving sustainable development requires a stronger focus on distributional impacts and regional vulnerabilities. Policies such as cohesion policy, the European Pillar of Social Rights and the Just Transition Mechanism play an important role, but their effectiveness depends on the capacity of regions to absorb and implement support measures. Strengthening institutional capacity, improving access to education and training, and enhancing the quality of public administration are therefore essential components of a successful sustainability agenda.

The final section outlines policy recommendations aimed at mitigating the risks faced by structurally weaker regions. These include improving the targeting of cohesion funds, integrating distributional assessments into sustainability planning, supporting labour-market transitions through reskilling and upskilling, and enhancing the resilience of public services. The paper concludes that sustainable development cannot be achieved without addressing the distributional consequences of structural change. Ensuring that all regions can participate in and benefit from the green and digital transitions is essential for maintaining social cohesion and achieving long-term territorial convergence in Europe.