

Driving Sustainable Human Development in Europe and beyond

SPES Policy Priorities



Executive summary

December 2025

This SPES Impact Handbook was written by

Mario Biggeri, University of Florence; Laura de Bonfils, Social Platform; Andrea Ferrannini, University of Florence; Sanna Honkaniemi, Social Platform; Katja Reuter, Social Platform

Peer reviewers

Toa Giroletti, University of Florence; Barbara Palla, University of Florence

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Europe is entering a decisive moment for climate, economic and social policymaking. On the one hand, escalating climate impacts, such as heatwaves, floods, droughts and biodiversity loss, demand swift and coordinated action. On the other, widening inequalities, energy poverty, rising living costs, and political polarisation threaten social cohesion and the legitimacy of ambitious reforms. Meanwhile, global competition for clean technologies, shifting demographics, and geopolitical instability heighten the need for greater strategic autonomy, resilience and social investments.

Despite significant progress, SPES research shows that fragmentation, insufficient coordination and unequal outcomes remain persistent barriers. Reactive measures often fail to address structural inequalities and climate policies are not always aligned with social objectives. Innovation and productivity strategies still prioritise short-term efficiency over long-term societal wellbeing.

To meet these challenges, Europe requires a cohesive, forward-looking transition strategy that:

- Integrates environmental, social and economic goals;
- Strengthens institutional capacity across all governance levels;
- Supports regional and global fairness;
- Expands sustainable and inclusive wellbeing.

Sustainable Human Development offers a unifying paradigm capable of steering this transformation.

The Big Picture: Insights Across SPES Research

SPES project offers a clear and integrated understanding of what a just and sustainable transition requires in Europe today. The findings demonstrate that while the challenges ahead are substantial, the opportunities are equally significant, provided that policies are designed with coherence, fairness and long-term wellbeing at their core.

● Introduction - p.06

A central insight is that Sustainable Human Development must guide Europe's transition. Traditional metrics of prosperity and productivity overlook many of the factors that matter most for people's lives and for ecological stability. SPES shows that policies oriented toward expanding people's capabilities, such as access to essential services, meaningful work, healthy environments and social participation, provide a more effective and legitimate foundation for long-term transformation than narrow economic objectives alone.

● Embracing Sustainable Human Development in Beyond-GDP metrics - p.10

Better measurement and data systems are crucial to achieving this shift. Existing indicators often fail to capture distributional effects, environmental pressures or the multidimensional nature of wellbeing. SPES highlights the need for robust, integrated data infrastructures and multidimensional monitoring frameworks that reflect economic, social and ecological realities. Without such tools, policies risk being misaligned with people's lived experiences and with the demands of planetary boundaries.

● Generating a Just Green Transition

- p.16

The project's research on productivity and innovation further highlights that the transition cannot succeed through technological change alone. While green innovation can foster economic dynamism, benefits remain unevenly distributed across Europe. Regions with strong institutional, scientific and financial capacities are better positioned to capture productivity gains, while others risk being left behind. Fragmented policy mixes, where technology, regulation and investment instruments are not coordinated, undermine progress. Purpose-driven strategies that link innovation to social inclusion and environmental goals are essential.

● The Social Dimension of Climate Resilience

- p.20

The social dimension of the transition therefore cannot be separated from climate aims. Climate risks and transition impacts often fall hardest on those already facing disadvantage, whether due to low income, inadequate housing, precarious work or limited access to transport. Integrating social protection, decent work strategies, equitable access to essential services, and territorial cohesion is essential for preventing new forms of exclusion and for ensuring that the transition improves quality of life for all.

● Effective, Fair and Inclusive Climate Policies

- p.24

Fairness emerges as a decisive factor for the success of climate policy. Instruments such as the Emissions Trading System II (ETS2) and the Carbon Border Adjustment Mechanism (CBAM) carry significant distributional implications, both within Europe and globally. Without safeguards that protect low-income households, vulnerable regions, and affected workers, these policies risk undermining political support and deepening inequalities.

SPES findings make clear that climate policies can only be effective when they are also perceived as equitable and legitimate.

● Citizens' Perspectives on the Just Transition

- p.28

SPES also shows that citizens' perspectives are a vital pillar of a just transition. People across Europe, and in partner countries beyond Europe, express strong support for climate action when policies are fair, transparent and participatory. However, misperceptions about energy use, frustration with unclear decision-making, and concerns about unequal burdens weaken trust. Meaningful engagement, accessible communication, and clear social benefits are fundamental to building durable democratic support.

The project highlights the global dimension of Europe's transition, particularly through its analyses of value chains and climate diplomacy. The impacts of CBAM, resource dependencies and international trade policies extend far beyond EU borders, influencing livelihoods and equity in low- and middle-income countries. Ensuring fairness, providing capacity-building, and fostering cooperative partnerships are essential for maintaining global legitimacy and for aligning European policies with principles of climate justice.

● Sustaining Climate Action Through Synergy Politics - p.32

Another central insight concerns the power of synergy-oriented policymaking. Policies that simultaneously improve daily living conditions, such as lower energy bills, better housing, secure jobs, and efficient mobility, are more likely to generate lasting political support and reinforce climate ambition. Integrated, multi-instrument policy

packages consistently outperform isolated measures, delivering both environmental and social gains.

● Bridging the Feasibility Gap Through Inclusive Governance - p.36

Finally, SPES research on future scenarios based on stakeholder engagement reveals that multiple pathways exist for achieving a just transition, but all depend on governance choices, institutional capacity and societal participation. Transparent, adaptive and multi-level governance structures strengthen policy feasibility and legitimacy, enabling Europe to navigate uncertainty while maintaining ambition.

● Final Remarks - p.40

Together, these insights paint a clear picture. Europe has the capability, knowledge and societal support necessary to lead a fair, sustainable and resilient transition. Achieving this future requires aligning economic, social and environmental objectives through coherent governance, investing in people and places, strengthening global cooperation, and placing Sustainable Human Development at the heart of policymaking.

This handbook offers a policy pathway toward that future.

Introduction

SPES vision on fostering Sustainable Human Development in Europe and beyond

Key Messages

- Sustainability transitions towards Sustainable Human Development (SHD) are the only way to drive the world towards a **better future for all**, within planetary boundaries.
- Sustainable Human Development should be the cornerstone of future European policy frameworks. Sustainable Human Development is composed of **five interconnected pillars** of equal importance, including productivity, equity, environmental sustainability, participation & empowerment, and human security. Robust evidence supports an increasingly shared consensus that economic growth, while crucial for improving wellbeing, does not automatically equate to Sustainable Human Development which is inherently multifaceted.
- The transition towards Sustainable Human Development must be dynamic and centred on **collective human action**, requiring reforms, investments, actions, and capacities to adapt the path to changes within multi-level and multi-stakeholder processes.

Main Challenges

We live in an era of multiple co-existing and overlapping **societal challenges and crises in human, environmental, economic, and political domains**. The dramatically high social and economic costs of the COVID-19 pandemic and the rise of violence and conflicts across the world (from Ukraine to Gaza, and beyond) have coupled with the severe impacts of climate change (especially in the Global South) and the increasing frequency of extreme weather events and biodiversity loss, persistent multidimensional poverty also due to high levels of inflation and the resulting cost-of-living crisis, as well as increasing inequalities within countries.

Moreover, people and communities are facing net losses in terms of human security due to the exacerbation of conflicts and violence across the world.

Policy Recommendations

The overarching goal of political decision-making, both at EU and global levels, should be to foster a fundamental integrated transformation of socio-economic systems to fulfil societal needs while respecting planetary boundaries through collaborative governance. This requires that competitiveness and productivity enhancing processes should primarily serve the enhancement of sustainable and inclusive wellbeing, starting with the reduction of inequalities and vulnerabilities, as well as with environmental protection and mitigation and adaptation of climate change. Doing so requires the following actions, illustrated for each recommendation with an EU-level example on how to operationalise it:

> 1. Ensure appropriate governance mechanisms as an accelerator for sustainability transitions

Good and “conscious” governance requires effective, inclusive, collective action through multistakeholder engagement, while prioritizing transparency and mutual responsibility. The combination and coordination of resources, actions and capacities from different governance levels, policy fields and societal actors are fundamental enabling factors for coherent and mutually supportive sustainability transitions. Therefore, “whole-of-government” and “whole-of-society” approaches in policy design and implementation are essential to establish and to achieve SHD.

The European Semester process is the EU main socio-economic governance mechanism that coordinates the EU’s competitive sustainability agenda. For it to adequately support sustainable human development, it is key to ensure the structured, regular and

meaningful involvement of stakeholders, including social partners and civil society, in all steps of the process, both at EU and at national levels. This is fundamental for improving the quality, evidence-base, ownership, legitimacy and acceptance of reform and investment recommendations.

> 2. Steer reforms and capital investments towards Sustainable Human Development

Different forms of capital contribute to the wellbeing of present and future generations. Therefore, investing in and preserving different forms of capital (natural, human, built/physical, economic/financial, and social/cultural) is fundamental for sustainability transitions. This requires a supportive environment for well-rounded public and private capital investments. In particular, assets representing the shared and common good, such as education and training, basic research, public health, infrastructures, and natural resources, particularly require public investment or proactive governmental intervention. Furthermore, governments should regulate market inefficiencies, ensuring that private investments in wealth generation align with the broader public interest.

The EU and Member States must urgently fill growing public but also private investment gaps, where relevant, to achieve the sustainability transition – estimated at 2.3% of its GDP in additional green investments needed to achieve its 2050 carbon neutrality targets alone, let alone other aspects of a just sustainability transition.

The next Multiannual Financial Framework (MFF) post-2027 has a vital role in triggering socially inclusive and environmentally sustainable structural reforms. To fill public and private green and social investment gaps, the size of the post-2027 MFF must be larger

than the current MFF and the Next Generation EU programme together (i.e. above EUR 2 trillion) and strengthen the Just Transition Fund, the Social Climate Fund as well as other funds contributing to achieving a just green transition.

At national level, the EU fiscal rules constitute a major barrier to enabling the necessary fiscal space. The EU should adjust the existing framework to create additional space for investments into the sustainability transition, while envisaging a major reform of the framework to be able to achieve the just green transition.

> **3. Make Research & Innovation policy fully transformative towards Sustainable Human Development**

Science, Research, and Innovation are not merely technical but have a social and political impact. Therefore, the purpose of R&I policy can no longer be the nondirectional promotion of innovation for growth and competitiveness. Rather, R&I processes can be at the core of system transformation processes, playing a fundamental role in paving the way for (and accelerating) the sustainability transition by pursuing an integrated and balanced perspective on economic, environmental, and social sustainability.

It is crucial to strengthen research and innovation into the sustainability transition through increased investment into dedicated Horizon Europe funding. The objective of the current Horizon Europe programme is to tackle climate change, help achieve the UN's Sustainable Development Goals and boost the EU's competitiveness and growth. Its design ensures a social and sustainability dimension. However, in the proposed MFF post-2027, the next Horizon Europe fund is tightly connected with the EU Competitiveness Fund, risking a deprioritisation of research that is not seen as directly contributing to strengthening competitiveness.

It is key to maintain a strong focus in the next Horizon Europe on sustainability and social inclusion challenges, supporting research and innovation directed to achieving a just sustainability transition.

> **4. Promote critical, creative, and caring citizenship**

Fuelling the process of systemic change requires shaping values and attitudes of current and future managers, entrepreneurs, policy makers, researchers, activists, and consumers towards SHD. Therefore, investing in education, training and learning systems to further incorporate a sustainability perspective can facilitate the transition processes, which, in turn, can lead to an increased awareness of intergenerational responsibilities and attention for the common good. At the same time, creating the conditions for community participation fosters social cohesion, makes societies stronger and more resilient, and it also positively affects good governance.

Ensure that the EU focus on skills does not come at the expense of a needed broader focus on education, training and lifelong learning. The definition of skills in the Basic Skills Action Plan – published as part of the 2025 Union of Skills – should be expanded to include key skills like personal, social and learning-to-learn competences, awareness of sustainability and intergenerational issues, civic and citizenship education, soft skills, critical thinking and media literacy.

SPES Notable Evidence

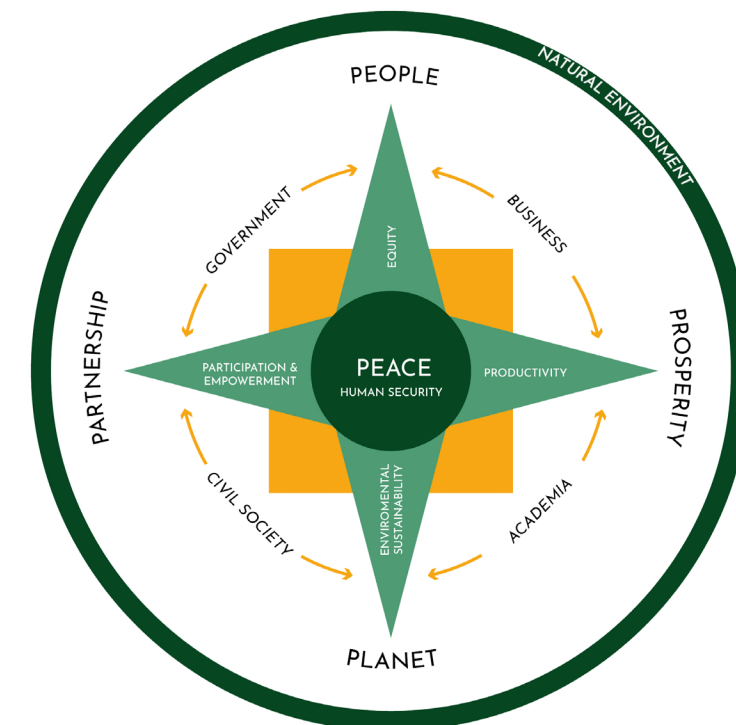
The **SPES framework** combines two major paradigms – sustainable development, as set out in the 2030 Agenda, and human development – to offer a clear direction for policies towards SHD and help push Europe and the world towards a better, sustainable future for all. It provides a new framework offering a clear integrated vision for sustainability transition processes, by placing economic growth and human flourishing within social and environmental boundaries.

The novel SPES framework is composed of three building blocks:

1. It identifies the **five Ps of the 2030 Agenda** – People, Prosperity, Planet, Partnership, and Peace – as the main critical areas of action, thereby advocating for sustainable development as the overarching global policy framework.
2. It identifies the corresponding **objectives** of the human development paradigm

– equity, productivity, environmental sustainability, participation & empowerment – each on equal terms, to fully embrace a SHD vision. Additionally, it introduces a new fifth pillar: the notion of human security, as many current human insecurity threats are by-products of human choices made in the pursuit of unsustainable and unbalanced growth and economic gains.

3. It uses the **Quintuple Helix model** to show how different societal actors – government, business, academia, civil society, and natural environment – interact and drive the sustainability transition by engaging their different domains and shaping the integrated pursuit of the five pillars in all five critical areas of action. In this way, the SPES framework is dynamic and centred on collective action shaped by a clear perspective for the common good.



Embracing Sustainable Human Development in Beyond-GDP metrics

From GDP to Wellbeing: the need for dynamic and integrated approaches to data and measurement

Key Messages

- Going **beyond-GDP** requires embracing a Sustainable Human Development paradigm, shifting the narrative toward the overarching goal of sustainable and inclusive wellbeing, and consequently boosting political commitment and institutional changes in policymaking processes and measurement.
- Investments in **technical capacities** are necessary to improve Sustainable Human Development measurement, by providing **adequate financing and tailored support to National Statistical Institutes** and other data providers.
- It is necessary to critically revise existing beyond-GDP alternatives and ensure **international harmonization** of existing beyond-GDP initiatives, defining a coherent framework for societal progress based on Sustainable Human Development. Part of the efforts should entail investigating and using innovative data sources to help understand transition dynamics and enhance traditional data sources. The **integration of novel data sources** requires an ethical data governance framework at the EU and national levels with common quality standards and methodological rigor, open access to data and scrutability of algorithmic tools. They must ensure they are interpretable, auditable, non-biased, and co-designed with stakeholders to ensure quality, public trust, transparency, representativity, accountability and legitimacy.
- It is crucial to adopt a multilevel and multistakeholder approach in the monitoring and assessment of public policy processes. This requires promoting connection among numerous stakeholders and across different governance levels to create a more informed and cooperative environment in policy design, implementation and impact evaluation. Citizen science approaches and **citizen-generated data** enable more inclusive knowledge production, bridging the gap between institutional expertise and local experience.
- A data-driven analysis is fundamental for the effective evaluation of complex societal challenges affecting Sustainable Human Development and sustainability transitions. Nevertheless, effective communication and a **supportive role of media** are equally crucial for improving and informing policy choices.

Main Challenges

The paradigm of SHD is inherently multifaceted, built on several associated pillars and combining a multitude of factors. In this sense, there is a growing consensus that GDP, the dominant index meant to measure economic activity, is not sufficient to adequately measure SHD. Indeed, the world needs a common direction with a framework to guide national, regional and global efforts in order to define key policy goals, such as the SDGs of the 2030 Agenda. Policies that adhere to a more comprehensive approach to measuring prosperity and wellbeing to **overcome limitations and drawbacks of GDP** would contribute to achieving transformational progress that is inclusive, just, and sustainable.

At the same time, going beyond the limitations of GDP, existing indicators struggle to capture the complexity, interconnectedness, and lived experience of sustainability transitions, overlooking key dimensions such as social justice, public perceptions, and community resilience. Additionally, the data infrastructures and governance frameworks underpinning these indicators are frequently fragmented, outdated, or inaccessible. Conventional data sources remain essential but are increasingly inadequate on their own. They are often too slow, too coarse-grained, or too narrowly scoped to reflect fast-changing dynamics. As a result, there is a growing **need for dynamic and integrated approaches to data and measurement** to capture the complexity of sustainability transitions.

Policy Recommendations

> 1. **Harness science-policy interface and go beyond GDP in our measurement systems**

Using scientific knowledge in decision-making processes is essential to enhance public trust in governments and their competencies, clarify policy choices for the public, fight misinformation, and improve the support and implementation of adopted policies. To achieve this, a more robust and interconnected science for the policy ecosystem is needed across Europe. In particular, it has become increasingly clear that GDP is not able to accurately capture the state of social, economic, and environmental development of countries, regions and cities. Thus, it is essential to define and ensure the uptake of an appropriate measurement system to capture the real progress on SHD and transition performances. Despite several global initiatives pushing to go “beyond GDP” on development measurement, this is not sufficiently embedded in policy and public debate. Therefore, it is key to direct all efforts in “valuing what counts”, developing and harmonising new definitions and metrics for measuring SHD.

> 2. **Strengthen a global collaboration to go beyond GDP & refine composite indicators for better policy insights on Sustainable Human Development**

There is a need for a broad global alliance among the most relevant international organizations and supranational institutions to coordinate convergence efforts and make the final decisive step to go beyond

GDP and achieve a technical consensus on broader metrics. Collaborative institutional efforts among UN, OECD and EU bodies must decisively foster more coherent measurement frameworks.

Composite indicators can contribute positively to the debate by informing and assisting decision-makers in monitoring and evaluation processes. Their widespread use reflects the urgent need to challenge the dominance of GDP by providing a single, multidimensional and effective measurement tool that can also complement dashboard and scorecard approaches.

In addition, while composite indicators are useful for monitoring and assessing socioeconomic trends, the environmental dimension should be examined independently. Therefore, we recommend complementing composite indicators with various green indicators (e.g. greenhouse gas emissions, water supply, biodiversity proxies) when assessing sustainable transitions.

> **3. Enhancing National Statistical Institutes to produce evidence on Sustainable Human Development**

By providing a comprehensive picture of challenges ahead and the resources to overcome them, Official Statistics stimulate informed discourse and enrich public debate. Therefore, it is key to integrate this information into the political process to enable stakeholders to comprehensively weigh the costs, benefits, and trade-offs of

different policy options. Investing in robust monitoring systems (in line with the System of National Accounts) and therefore improving statistical capacity and technical capacities (through adequate financing and tailored support for national statistical institutes and other data providers) not only enhances accountability and transparency but also promotes evidence-based decision-making.

> **4. Establish ethical guidelines and minimum technical standards for the use of emerging data sources**

These guidelines must address privacy, fairness, representativity, and accountability – especially for industry led data and novel types of data, while remaining flexible for future data needs. Ensuring the comparability and policy relevance of transition indicators requires cross-border harmonization. The EU should foster coordination among member states to align methodologies and integrate diverse data sources by expanding Eurostat's infrastructure to include new data types. This will support robust, comparative analyses across countries, regions, sectors, and population groups.

> **5. Promote open, transparent data, fund public datasets, and require method scrutability**

Public-facing datasets are vital for fostering transparency, accountability, and people's engagement in sustainability transitions – yet they remain under-resourced. Starter funds can help launch and sustain open datasets that track key sustainability indicators, enable

cross-regional and cross-group comparisons, and support evidence-based policymaking, strengthening democratic access to information and fostering innovation. Additionally, EU-funded projects should adopt open methodology principles to allow third parties to scrutinize how data is produced.

> **6. Recognize citizen-generated data to embed public participation & strengthen public sector data literacy**

It is key to recognize citizen-generated data (CGD) and embed public participation in sustainability governance. CGD, enhances democratic legitimacy and local relevance in sustainability transition monitoring. EU institutions should support people's participation in both data collection and validation, integrating CGD with institutional sources through inclusive processes. To do so, the EU should establish a robust regulatory framework and quality standards that recognize it as a valid and legitimate source alongside expert data. This would ensure its inclusion in policy consultations and assessments, bridging the gap between institutional practices and people-led contributions, and fostering more accountable, trusted governance.

To improve citizen-generated data, it is, in return, necessary to strengthen public sector data literacy and capacity building and embed people's participation in data governance. EU funding should support comprehensive training and capacity-building for policymakers, public administrations, and people programs – especially from

underrepresented groups – at all levels. Building on the European Skills agenda initiatives, including the Digital Education Action Plan, programs should cover interpreting emerging data sources and understanding the ethical dimensions of AI supported tools. In parallel, public participation should be embedded in institutional processes through structured civil and social dialogue, citizens panels, codesign workshops, and deliberative forums to help ensure data governance is transparent, inclusive, and accountable, enhancing both democratic legitimacy and public trust in data-driven policymaking.

SPES Notable Evidence

SPES research highlights key dynamics and changes needed to foster a societal consensus towards SHD. Indeed, development narratives, policy priorities and technical capacities must align before an appropriate SHD measurement framework can be adopted at global and European levels and used effectively in policymaking processes.

Mapping the most relevant indicator frameworks shows that the Beyond-GDP debate produced an **increasing number and complexity of metrics** used to measure one or more dimensions of SHD. However, the underlying concepts and the applied methodologies may lead to diverging outcomes, thus challenging the interpretability of countries' position and evolution over time. Most **composite indices** show drawbacks and challenges in terms of data timeliness and availability, as well as in terms of territorial coverage.

The project has undertaken an in-depth statistical analysis of five composite indicators broadly used by international policy institutions to capture SHD, wellbeing and transition performances. Results show that most composite indicators are rather robust to small changes in their components. The side effect of robustness is a relative insensitivity to actual changes in its components. This implies that these indicators have limited capacity to inform policymakers about transition performances in the short run. Despite often being

overlooked, the assumptions underlying the construction of the indicators shape their outcomes and should be openly acknowledged and more deeply discussed. Finally, the effectiveness of a monitoring system is strongly related to what one does with it, not just how it is built. The true value of monitoring systems indeed lies in their comprehensibility and in the actionable insights they provide to ensure that monitoring can be a cornerstone of **strategic decision-making**.

Regarding the use of new metrics and ethical data governance for a just transition, SPES identifies a wide range of data sources as innovative in supporting the monitoring of sustainability transitions. These include CGD, satellite imagery, administrative and governmental data, big urban data, web data, and financial transaction data, as well as data generated through remote sensing, crowdsourced platforms, and social media. Innovation often stems from creatively adapting data generated for unrelated fields or institutional functions as well as from creatively combining traditional and nontraditional sources.

Yet, such practices raise challenges, such as a lack representativity or reliability. **Integrating diverse datasets** requires harmonization methods that ensure methodological consistency and policy relevance. SPES research has identified practical strategies to address these issues, including synthetic datasets, blended

surveys, visual decision tools, and software-enabled workflows.

An analysis of Google Trends data provided insights into how people across EU member states engage with sustainability discourses and revealed a steady increase in public interest over time, along with significant regional variations. These findings highlight the value of **perception-based and behavioural data** as complements to traditional institutional metrics, but also emphasizes the importance of ensuring access to platform data for public interest research.

Citizen-generated data, such as citizen sensing and participatory environmental monitoring, supports transparency, informs policy, and fosters community engagement. Yet its broader uptake is constrained by persistent barriers: unclear data ownership, fragile technical infrastructure, challenges in sustaining engagement, exclusion from governance frameworks, and limited recognition in science and policy. Overall, SPES results affirm the need for more **pluralistic and inclusive evidence systems** that reflect the lived realities of communities and the complexity of transitions.



Generating a Just Green Transition

Aligning innovation and competitiveness with sustainability priorities

Key Messages

- Competitive sustainability requires systemic change. Innovation, productivity and growth must embed **sustainability** as **core principles**, not just add-ons.
- **Policy mixes** remain fragmented. Although sustainability is referenced widely, science, technology and innovation policies often lack coherence across green goals, capability-building and inclusion.
- Robust, integrated databases and indicators are essential. Effective policymaking needs well-structured data and monitoring of policy mixes over time.
- **Green technologies** can raise productivity. However, gains are unevenly distributed, dependent on regional capabilities and risk undermining social justice if not designed inclusively.

Main Challenges

Traditional understandings of productivity remain **narrowly focused on economic output**, efficiency and technological performance, often overlooking environmental limits, social equity and long-term resilience. This fragmented approach means that productivity and innovation policies tend to prioritise short-term competitiveness rather than SHD pillars. Policy mixes across the EU are frequently inconsistent, with technology-push, demand-pull, regulatory and financial instruments operating in **silos** and failing to reinforce one another. As a result, the transition towards a green and just economy is slowed by a lack of policy coherence, coordination and shared vision.

Moreover, the capacity to translate green innovation into productivity gains varies significantly across regions. Strong scientific, technological and financial capabilities are concentrated in a few areas, leaving weaker regions at risk of exclusion from emerging green markets. These **territorial divides** are mirrored globally. Europe's reliance on imported raw materials and production in the Global South exposes inequalities and environmental trade-offs embedded in **global value chains**. Case studies from Peru, Vietnam and Italy show how sustainability transitions can amplify social and environmental pressures abroad unless they are governed by inclusive and equitable frameworks.

Policy Recommendations

- > **1. Encourage Member States to reframe national productivity strategies around human development and ecological boundaries, using concrete EU-level steering mechanisms**

National and EU productivity strategies should move beyond narrow efficiency goals to integrate sustainability, resilience, and equity as guiding principles. Embedding these priorities in governance frameworks (such as the European Semester and the Competitiveness Council) and strategies (such as the Competitiveness Compass), as well as in national productivity boards, can help align productivity growth with human development and ecological boundaries.

Use the European Semester to require Member States to integrate sustainability, resilience and equity criteria into national productivity strategies, drawing on indicators that reflect environmental limits and human development. Align discussions at the Competitiveness Council and Competitiveness Compass with these priorities and task national productivity boards with assessing productivity trends against ecological boundaries and social inclusion objectives.

- > **2. Encourage coherence and integration across policy mixes**

Innovation, industrial and sustainability policies remain fragmented. Greater coherence between technology-push and demand-pull instruments, supported by regulatory, financial and institutional

measures, is essential to enhance synergies, reduce trade-offs and accelerate the transition towards competitive sustainability.

Strengthen cross-sectoral coordination mechanisms through the Commission's industrial and innovation policy processes, ensuring that technology-push, demand-pull, regulatory and financial instruments are aligned.

> **3. Support regional innovation ecosystems and place-based capabilities**

Regional and territorial inequalities limit Europe's ability to translate green innovation into productivity gains. Targeted investment in skills, research, digital and green infrastructure, and institutional capacity (particularly in less developed regions) can help ensure all territories benefit from the green and digital transitions.

Mobilise Cohesion Policy to build regional capabilities by investing in skills, research infrastructure, institutional capacity and green and digital technologies.

> **4. Embed binding sustainability and equity criteria in the governance of global value chains (GVCs)**

Europe's competitiveness depends on fair and sustainable global partnerships. Embedding binding sustainability and social standards in value chain governance, through corporate due diligence, sustainable trade agreements, and responsible public procurement, can strengthen Europe's strategic autonomy while supporting just transitions in the Global South.

The EU is currently striving to water down its corporate social responsibility regulations. Instead, the EU should implement and strengthen the Corporate Sustainability Due Diligence Directive (CSDDD) by supporting small- and medium-sized enterprises (SMEs) and producer groups in partner countries, particularly in the Global South, to meet environmental and social standards. Complement due diligence with sustainability criteria in EU trade agreements and public procurement, ensuring smallholders and vulnerable producers are not excluded from EU markets.

> **5. Develop new indicators, monitoring and evaluation policy frameworks that reflect the multidimensional nature of competitive sustainability**

Existing productivity indicators fail to capture environmental integrity, social equity and institutional inclusiveness. Developing integrated monitoring and evaluation systems that combine economic, social and ecological dimensions will help policymakers assess progress and ensure policies remain aligned with long-term sustainability goals.

Expand the European Semester indicator set and R&I policy monitoring to include integrated economic, social and environmental metrics, in line with SPES' call for multidimensional productivity indicators.

SPES **Notable Evidence**

The SPES analysis demonstrates that **green technologies and sustainability-oriented innovation** can generate productivity gains, but these benefits are unevenly distributed across Europe. Regions with strong scientific, technological and financial capabilities, alongside robust institutions and skilled workforces, are far better positioned to transform green innovation into sustained productivity growth. In contrast, weaker regions often lack the necessary enabling conditions, deepening territorial divides and highlighting the importance of capability-building as a precondition for a just transition.

Evidence from cross-country comparisons further reveals significant differences in the **coherence and design of policy mixes**. Countries such as Germany and France show more integrated approaches, sequencing technology-push and demand-pull measures in a way that supports systemic transformation. Others, including the Netherlands and Italy, have broadened their policy portfolios to include regulatory, financial and informational instruments, while the United Kingdom, Denmark, and several Central and Eastern European countries display more fragmented mixes. This variation underlines how the composition and coordination of policy instruments directly influence the effectiveness of sustainability transitions.

Conceptual innovations are needed. Productivity should be redefined as the capacity of societies to generate value within planetary boundaries in ways that enhance human capabilities and social justice. This approach reframes productivity from a narrow measure of output or efficiency towards a multidimensional understanding of value creation that integrates environmental integrity and social inclusion.

Finally, the SPES case studies on GVCs highlight the interdependence between European competitiveness and international sustainability challenges. Analyses of sectors such as copper mining in Peru, textiles and coffee in Vietnam, and coffee certification in Italy illustrate how environmental and social pressures are often externalised along supply chains. These findings reinforce the need to **embed sustainability and equity criteria within global production systems** to ensure that Europe's green transition contributes to fair and sustainable development worldwide.

The social dimension of climate resilience

Integrating equity, protection and participation in just transition policies

Key Messages

- **Climate risks** are growing and increasingly interlinked with **social and territorial inequalities** across Europe.
- A just transition requires active policy **coordination between climate, social and economic instruments**, ensuring that vulnerable workers, sectors and regions are not left behind.
- Structural transformations in **energy, housing, mobility and industry** must prioritise both emission reduction and resilience to climate impacts.
- Effective governance of the transition depends on robust territorial planning, participatory processes and sustained investment in skills, innovation and institutional capacity.
- Tackling **energy poverty** must be a core component of just transition strategies, because it remains a major barrier to climate resilience, with Southern and Eastern Europe experiencing significantly higher levels of inadequate heating, difficulty paying utility bills and poor housing conditions.

Main Challenges

Climate change is amplifying social inequalities and regional disparities. The costs and benefits of the green transition are distributed unevenly, with carbon-intensive regions, low-income households and vulnerable workers facing the greatest risks. Despite a growing EU policy framework, many measures remain fragmented and reactive, lacking integration between mitigation, adaptation and social justice objectives. Regional administrations often lack institutional capacity and financial means to plan and implement coherent transition pathways.

At the same time, **climate impacts** such as heat waves, floods, and droughts, expose the limits of current adaptation policies and highlight the urgency of addressing **systemic vulnerabilities** in housing, energy and labour markets. SPES evidence shows that energy poverty is widespread, particularly in Southern and Eastern Europe, and often persistent, making affected households significantly less able to cope with climate risks or invest in resilience. The challenge lies in combining decarbonisation with social protection, employment support, and inclusive regional development.

Policy Recommendations

> 1. Develop Comprehensive, Multi-Instrument Policy Packages

Isolated interventions fail to address the complex, multidimensional nature of energy poverty and climate transition challenges. Evidence shows that combining decarbonisation measures with targeted subsidies, household transfers and structural reforms yields better outcomes than single-sector approaches. Successful strategies, such as Spain's multi-category framework, link short-term relief to long-term structural change. Effective packages must coordinate income protection, housing renovation, energy efficiency and sustainable transport policies to reduce emissions, lower costs, and expand equitable access.

Use the Social Climate Fund (SCF) to support integrated policy packages that combine income protection, targeted subsidies, housing renovation, energy-efficiency improvements and access to sustainable transport. Require Member States, as part of their Social Climate Plans, to coordinate SCF measures with Cohesion Policy, NECPs, and Just Transition Plans, ensuring alignment between mitigation, adaptation and social protection measures. Incorporate SPES evidence on energy-poor households by prioritising SCF-funded renovation and heating-system upgrades for dwellings with structural faults, such as damp, leaks and inadequate insulation, which SPES identifies as major drivers of energy poverty in Southern and Eastern Europe.

> 2. Prioritise Strategic Targeting of Vulnerable Populations

Different forms of capital contribute to the policies are most effective when focused on those most at risk. Targeted approaches, like Portugal's concentration of efficiency measures on vulnerable consumers, achieve stronger distributional outcomes than universal subsidies. To maximise fairness, clear vulnerability criteria should guide both design and delivery, combining social, territorial and energy-use dimensions. Distinguishing between universal entitlements and untargeted subsidies helps ensure that support reaches households most in need and strengthens both efficiency and legitimacy.

Mandate that Member States define clear vulnerability criteria in Social Climate Plans and NECPs, drawing on SPES socio-climate vulnerability mapping and existing EU indicators. Require SCF resources to be channelled toward households most exposed to energy poverty, insecure housing and climate risks. Integrate SPES energy-poverty indicators, such as inability to heat one's home and arrears on utility bills, into EU-level monitoring through the European Semester, ensuring that Member States identify and structurally support households at risk of falling behind in the transition.

> 3. Address Multiple Dimensions of Inequality

Climate and energy policies have uneven impacts across gender, geography, and occupation. Rising energy prices disproportionately affect women's employment, rural households and manual workers. Systematic distributional

analyses should therefore precede policy implementation to identify and mitigate these disparities. Measures such as tailored eligibility rules, compensatory mechanisms or links to labour-market support can ensure that the transition enhances fairness and public trust rather than widening inequality.

Require Member States to conduct systematic distributional impact assessments, by for example gender, region, occupation and income, when designing NECPs, Just Transition Plans and SCF measures. Use the European Semester to monitor whether climate and energy reforms improve or worsen social and territorial inequalities, and request corrective measures where negative impacts are identified.

> 4. Address Structural Misalignments

Institutional and regulatory inconsistencies frequently undermine policy effectiveness. Misaligned incentives between landlords and tenants, fragmented governance, and inconsistent definitions create barriers for vulnerable households. Stronger coordination mechanisms, harmonised rules across territories, and frameworks that align the incentives of actors are essential. Overcoming these barriers is key to scaling innovations like renewable energy communities and sustainable transport systems, which can reduce costs and empower vulnerable and sustainable transport systems, which can reduce costs and empower vulnerable consumers.

Strengthen multi-level governance by requiring Member States to establish coordination mechanisms between national, regional and local authorities within NECPs, Social Climate Plans (SCPs) and Just Transition planning. Ensure harmonised rules for energy renovation, landlord-tenant incentives and renewable energy communities across regions. Use Cohesion Policy and the SCF to support local authorities in overcoming structural barriers to renovation in energy-poor households, particularly in regions where SPES identifies poor housing quality as a major driver of vulnerability.

SPES Notable Evidence

SPES evidence highlights that climate risks are unevenly distributed across Europe and that vulnerability strongly correlates with socio-economic disadvantage. Regions dependent on carbon-intensive industries, such as coal mining, heavy manufacturing and energy production, face the dual challenge of decarbonisation and adaptation. Quantitative analyses show that without strong social and regional policies, the **transition risks deepening inequalities** rather than reducing them.

Case studies from across Europe demonstrate how integrated governance and territorial planning can mitigate these risks. For example, regions combining climate adaptation with industrial diversification and worker retraining achieve more inclusive outcomes. SPES evidence emphasises the **role of participatory governance and multi-level coordination**, where local authorities, social partners and civil society co-design transition pathways, as a cornerstone of resilience and legitimacy.

Finally, the SPES research introduces innovative methods for **mapping “socio-climate vulnerabilities”**, combining environmental exposure data with social and economic indicators.

This approach allows policymakers to identify high-risk regions and target resources effectively, supporting a just, evidence-based transition across Europe. SPES also identifies a pronounced “energy divide” across Europe, with households facing persistent energy poverty, linked to poor housing conditions, unemployment and low income, being substantially more exposed to climate risks.



Effective, fair and inclusive climate policies

An examination of ETS2, CBAM, and climate equity across borders

Key Messages

- **Ambitious European climate policies** play a critical role in tackling global warming by driving rapid emission reductions and shaping international norms and cooperations.
- The Emissions Trading System II (ETS2) and the Carbon Border Adjustment Mechanism (CBAM) represent a new phase of EU climate governance, but their success depends on whether they **incorporate social fairness and international equity**, both within Europe and in the Global South.
- The Social Climate Fund (SCF), if expanded and transparently managed, can provide both short-term protection and long-term investment for vulnerable households facing higher energy and transport costs.
- CBAM's fairness and legitimacy can be strengthened through inclusive implementation, support for SMEs, and revenue recycling into climate programmes for low-income countries affected by climate impacts.

Main Challenges

European climate action is undergoing a structural shift with ETS2 and CBAM, extending carbon pricing to everyday consumption and global trade. These instruments are highly **effective at reducing emissions**, yet they pose significant **distributional risks**. Within Europe, lower-income households, energy-poor regions and SMEs face disproportionate burdens from rising fuel and heating costs and new compliance requirements.

Outside Europe, CBAM risks deepening inequalities in low- and middle-income countries that depend on carbon-intensive exports, potentially increasing poverty, reducing competitiveness and straining global cooperation.

While macroeconomic effects may appear modest, SPES evidence shows severe distributional consequences for poor, rural and unskilled workers within affected sectors. For example, in Egypt, steel and fertiliser workers face job losses and wage cuts even when national trade impacts remain limited.

Uniform CBAM application also risks conflicting with principles of **Common but Differentiated Responsibilities**, heightening tensions and undermining climate cooperation. Ensuring fairness through exemptions, flexibility and revenue recycling is therefore essential to avoid exacerbating inequality in the Global South. Balancing climate ambition with fairness, both domestically and internationally, is therefore one of the EU's core sustainability challenges.

Policy Recommendations

> 1. Strengthen the Social Climate Fund to Deliver Fairness Under ETS2

To prevent ETS2 from deepening inequality, the Social Climate Fund must prioritise long-term structural investments and targeted support for vulnerable households. A reinforced SCF can combine immediate protection with the systemic changes needed to tackle energy and transport poverty.

Require Member States, in their Social Climate Plans, to prioritise structural measures such as housing renovation, renewable heating, accessible public transport, and strengthened minimum income schemes, as mandated in the SCF Regulation. Expand the SCF's budget adequacy by pooling ETS + ETS2 revenues, as recommended in SPES, and require transparent national allocation to build public trust. Ensure SCF support is targeted to energy-poor households and SMEs most exposed to rising heating and fuel prices, reflecting SPES modelling of distributional impacts.

> 2. Make CBAM an Instrument of Fairness and Global Cooperation

CBAM should operate as a climate-solidarity tool that supports SMEs and strengthens climate ambition globally. Its long-term legitimacy depends on fair implementation and meaningful international support.

Provide simplified reporting, technical assistance and targeted financial support

for SMEs affected by CBAM, as outlined in SPES research. Channel a portion of CBAM revenues into technology transfer, climate finance and capacity-building for low-income countries, prioritising those most affected by CBAM-related adjustment costs. Embed CBAM within EU climate diplomacy by aligning it with programming under NDICI-Global Europe, ensuring that third-country support is coherent with EU development and climate goals.

> **3. Introduce Flexibility and Exemptions for the Most Vulnerable Partners**

A differentiated CBAM approach is crucial to protect fragile economies and uphold climate justice. Flexibility mechanisms can strengthen trust and reduce the risk of retaliation.

Establish transparent exemption criteria for low-emission subsectors and small-scale enterprises in low-income and vulnerable countries, in line with SPES evidence that uniform application harms poor and rural workers disproportionately. Allow reduced CBAM rates or delayed phase-in for least-developed and climate-vulnerable partners, reinforcing the principle of Common but Differentiated Responsibilities. Integrate exemption pathways with EU trade tools (e.g., Sustainable Development Chapters in FTAs) to ensure consistency with EU commitments on poverty reduction and sustainability.

> **4. Build Institutional and Technical Capacity in Trade Partners**

Effective CBAM compliance requires robust emissions data systems, monitoring

frameworks and skilled personnel. Supporting partner countries' capacity reduces vulnerability and enables more equal participation in global climate governance.

Use EU international partnerships to fund MRV system development, emissions-data infrastructure, and technical training, as recommended in SPES. Prioritise capacity-building programmes through NDICI-Global Europe, focusing on sectors and regions where SPES evidence shows the strongest distributional risks (e.g., steel, fertilisers). Create dedicated EU technical-support channels to help partners meet CBAM requirements without diverting resources from essential domestic development needs.

> **5. Safeguard the Integrity of the European Green Deal and Long-Term Climate Ambition**

Rollbacks of core Green Deal elements risk undermining public trust and slowing climate progress. Maintaining coherence and ambition across EU climate instruments is essential.

Preserve ambition in the 2040 Climate Target, ensuring consistency with the EU's 2030 and 2050 climate objectives. Avoid weakening key frameworks referenced by SPES, including the Nature Restoration Law, Common Agricultural Policy eco-schemes, and Corporate Sustainability Reporting, all vital for a coherent transition. Require that Member States' climate and energy reforms remain aligned with Green Deal pillars during implementation via European Semester monitoring.

SPES Notable Evidence

SPES evidence shows that **ETS 2 and CBAM are environmentally effective but carry high socio-economic risks without robust redistribution**. Studies find that lower-income households across Europe would face significantly higher costs from carbon pricing unless revenues are recycled into targeted support or clean-energy investment. In France and Italy, annual losses could exceed €300–€500 for vulnerable households, while in Hungary, the poorest decile experiences welfare losses 1.6 times higher than the richest.

Evidence also highlights large cross-country differences in exposure to CBAM. Import-reliant countries such as Bulgaria, Greece and Italy face greater cost increases in steel and aluminium, with SMEs bearing disproportionate compliance burdens. Internationally, CBAM could reduce competitiveness and increase poverty in countries like Egypt, even if macroeconomic impacts remain limited, showing that vulnerable populations, not national averages, bear the brunt.

SPES also illustrates CBAM's global influence. Countries such as Turkey and Brazil are accelerating carbon-market reforms to retain access to the EU market, demonstrating CBAM's potential to shape global climate ambition when implemented fairly.



Citizens' perspectives on the just transition

How public perceptions, misperceptions, and lived experiences shape support for fair climate transitions

Key Messages

- Citizens across the world express high **support for environmental protection and climate action**, but this support is conditioned by perceived fairness, affordability, and trust in institutions.
- Europeans consistently misjudge their household energy consumption, often underestimating their own footprint relative to others, which affects willingness to change behaviour and support certain policies.
- Bottom-up insights from participatory workshops show that people value health, clean environments, secure livelihoods, and affordable, reliable services as central to a just transition, highlighting the need for policies grounded in everyday life realities.
- Citizens emphasise that just transitions must combine **fair distribution** of costs and benefits, **transparent governance**, and opportunities for meaningful **participation** at all levels.

Main Challenges

Citizens recognise the **urgency of climate action** but often perceive climate policies as unfair, costly, or imposed without sufficient consultation. Evidence shows widespread **misperceptions about personal energy use**, with many Europeans believing they consume less than average, reducing motivation to adopt behavioural changes or support ambitious policies. At the same time, structural inequalities, such as limited access to public transport, inadequate housing, energy poverty, or insecure livelihoods, shape people's capacity to participate in the transition.

Public trust remains fragile. Many perceive that powerful actors (industry, governments, and wealthier households) bear too little responsibility, while vulnerable groups bear too much. This undermines legitimacy and fuels **scepticism** toward climate measures. Across regions, citizens express frustration with opaque decision-making, insufficient information, and weak avenues for participation, pointing to a governance gap that limits the effectiveness and fairness of just transition policies.

Similar concerns emerge beyond Europe. Workshops held in Kenya, Nigeria, Pakistan and other partner countries highlight that citizens face constraints including unreliable energy access, affordability challenges, and limited institutional capacity. Participants stress that climate transitions must not replicate historical inequalities or **extractive dynamics** in global value chains. Local communities call for fair trade, protection of livelihoods, and support for community-led renewable solutions.

Policy Recommendations

> 1. Strengthen fairness, affordability and social protection in climate policy design

Citizens consistently support climate action when policies are fair, affordable, and attentive to household realities. Ensuring that low-income groups are protected from disproportionate costs is essential for legitimacy. SPES results show that when people see tangible benefits such as lower bills, healthier environments, and better services, support rises significantly. Climate measures should therefore be embedded within stronger social protection systems, transparent targeting criteria, and clear communication on who pays and who gains.

Use the Social Climate Fund (SCF) to finance targeted affordability measures (e.g., energy renovation support, clean transport access) for vulnerable households. Require Member States to integrate distributional impact assessments and fairness criteria into Social Climate Plans.

> 2. Improve citizen understanding and awareness by addressing misperceptions of energy consumption and clarifying policy impacts

SPES evidence shows that Europeans misestimate their own energy use relative to others, weakening behavioural engagement and acceptance of climate measures. Citizens want transparent information on both personal consumption and policy outcomes, but current communication tools are often inadequate, overly technical

or insufficiently contextualised. Effective transition governance requires accessible, trusted and citizen-centred communication strategies that correct misperceptions while empowering people to make informed choices.

Mandate that NECPs and Social Climate Plans include citizen-oriented communication strategies that provide transparent, easy-to-understand information on household energy use and expected policy impacts. Leverage Eurostat and national statistical offices to develop clearer public-facing indicators and communication tools.

> **3. Institutionalise meaningful citizen participation in transition planning at all levels**

Across all SPES workshops, citizens stressed the need for participatory structures that allow communities to shape the transition. People want involvement not only in consultation phases but in ongoing monitoring, priority-setting and implementation. Inclusive participation enhances legitimacy, incorporates diverse forms of expertise, and increases the likelihood that policies address real needs and constraints.

Require Member States to establish permanent participatory mechanisms such as citizen panels, community advisory boards and civil society forums embedded within NECPs, Social Climate Plans and Just Transition Plans. Strengthen civil dialogue by implementing the EU Civil Society Strategy to safeguard participation and civic space.

> **4. Advance place-based, community-led solutions that reflect local needs and capacities**

Citizens emphasised that just transitions must be grounded in local realities, whether around transport access, housing conditions, land use, or livelihood strategies. Community-led solutions, especially in rural or marginalised areas, allow policies to be adapted to lived experience rather than imposed from above. This includes support for community energy, local mobility systems, nature-based solutions and small-scale economic initiatives that enhance resilience and social cohesion.

Use Cohesion Policy funds to expand community-led climate initiatives and require Member States to include locally designed transition priorities in Partnership Agreements. Strengthen the role of local authorities and community organisations in decision-making.

SPES Notable Evidence

SPES provides one of the most comprehensive **cross-country mappings of citizens' perspectives on the transition**, combining global survey data, experimental research, and participatory workshops. It reveals that citizens support environmental protection but are sensitive to **fairness, affordability and trust in institutions**. Public support is not fixed but can shift depending on how policies are framed and implemented.

The research on biased energy perceptions demonstrates that misjudging personal energy use is a widespread cognitive barrier to behavioural change in Europe, highlighting the need for communication tools grounded in behavioural science.

The co-creation workshops represent a major methodological innovation, generating bottom-up transition visions across Europe and the Global South. These workshops show that citizens prioritise quality of life, access to essential services, decent work, and transparent governance, which are elements often undervalued in top-down transition planning.



Sustaining Climate Action Through Synergy Politics

How aligning climate ambition with improvements in living standards can build durable political support for the transition

Key Messages

- Climate policies lose political support if they worsen living standards. For the transition to be durable, it must directly improve affordability and access to essential services.
- **Integrated policy packages** that combine climate action and social protection outperform carbon taxation or growth-based strategies alone, enabling faster decarbonisation and reduced inequalities.
- Fair, visible, and trusted redistribution of climate revenues is indispensable for sustaining **public support**. Households must experience tangible, near-term benefits.
- **Synergy politics**, meaning designing climate ambition around improved livelihoods, is a viable pathway for durable, socially just, and ecologically effective transitions in Europe.

Main Challenges

The **political fragility of climate action** stems not from a rejection of ecological goals, but from widespread fears of unfair sacrifice. Many households associate climate policies with increased costs, reduced mobility, or threats to employment, especially where transitions are perceived as imposed “from above”. Economic insecurity, uneven access to essential services, and territorial disparities amplify the geography of perceived “green losers”. Meanwhile, climate debates framed around trade-offs, such as jobs versus climate, prosperity versus emission cuts, reinforce the impression that living standards must decline to achieve ecological objectives.

Rising inequality, distrust in institutions, and **uneven distribution of transition benefits** further undermine political durability. Without a transition that improves people’s daily lives, public support remains vulnerable to shocks and electoral cycles.

Policy Recommendations

- > **1. Expand universal access to low-carbon essential services to reduce constrained spending and make climate action a material improvement in daily life**

Improving access to affordable, reliable low-carbon services is essential for a politically durable transition. Universal access to clean mobility, stable low-carbon electricity, and quality housing lowers household vulnerability to price shocks and reduces structural inequalities. When people experience the transition as expanding their ability to meet essential needs, climate action gains legitimacy and broader social support.

A European framework for Universal Basic Services should be developed to guarantee affordable and accessible essential services across Member States. The EU Affordable Housing Plan should be aligned with just transition objectives by prioritising renovation of worst-performing buildings, expansion of public, social and cooperative housing, and safeguarding tenants from renoventions and rent increases. The Citizen’s Energy Package should address structural drivers of energy poverty, expand community energy, and safeguard vulnerable households during renovation and electrification processes.

- > **2. Provide job security and economic conversion pathways in transitioning sectors to avoid territorial backlash and preserve social cohesion**

A fair transition must protect workers and regions tied to carbon-intensive industries. Job guarantees, reskilling programmes, and territorially anchored industrial strategies help maintain income stability and community identity during restructuring. When workers see secure pathways into new green sectors, support for climate ambition becomes more resilient.

Create a European Job Guarantee for Transitioning Regions and require Member States’ Territorial Just Transition Plans to include sector-specific reskilling pathways co-designed with unions. Mandate that Green Public Procurement prioritise contracts supporting local industrial conversion into green value chains. Prioritise just transition in the EU Quality Jobs Roadmap and Union of Skills, enabling anticipatory reskilling and mobility pathways for workers in carbon-intensive and declining sectors.

- > **3. Ensure climate fairness through visible and trusted redistribution mechanisms that protect purchasing power and enhance resilience**

Redistribution is essential for climate legitimacy. Upfront income support, climate dividends, and expanded public services

can prevent energy poverty and reduce inequalities. When fairness is tangible and immediate, households are more likely to defend ambitious climate policies rather than resist them.

Access to the Social Climate Fund should require Member States prioritise structural solutions to energy poverty and provide targeted income support for the most vulnerable. An EU Directive on Minimum Income is needed to ensure all people are adequately supported as during transitions. The European Pillar of Social Rights and its Social Scoreboard should be used for monitoring fairness in climate reforms, strengthening accountability and visibility of redistribution outcomes.

> **4. Guide public and private investment through quantity-based climate governance to deliver predictable and socially stabilising transition pathways**

Predictable phase-out schedules and coordinated financial regulation are needed to avoid disorderly transitions. Aligning public and private investment with clear decarbonisation trajectories ensures that new opportunities emerge before old ones disappear, strengthening political and economic stability throughout the transition.

The EU Sustainable Finance Taxonomy should be used to orient investment toward activities that support a socially fair and climate-aligned transition, ensuring that financial flows are consistent with planned phase-out schedules for carbon-intensive sectors.

SPES Evidence

SPES developed **SEN-HARP**, an agent-based, stock-flow consistent model calibrated for the EU-27, capturing how households experience climate transitions, how inequalities evolve, and how political support shifts over time. The model simulates needs satisfaction (food, heating, mobility, housing), industrial restructuring, and explicit voting behaviour. This is a significant innovation in **understanding political feasibility**.

Evidence from SEN-HARP shows that carbon-tax-centric strategies are politically fragile, as they generate immediate visible costs before low-carbon alternatives are available, leading to loss of support and reversal risks. In contrast, integrated social-climate packages combining green investment, job guarantees, redistribution, and universal access to essential services deliver the fastest decarbonisation while reducing inequalities and strengthening political support.

The SPES research also provides new insights from 20 years of Eurobarometer data, showing that **public concern** for the environment fluctuates with economic shocks, and that regional political dynamics shape the geography of support and resistance. These findings underscore that political durability hinges on transitions that improve, rather than compromise, everyday living conditions.



Bridging the Feasibility Gap Through Inclusive Governance

Aligning climate ambition with real-world social, political, and institutional conditions to ensure feasible, fair and effective transitions

Key Messages

- Rapid, inclusive and deep transformation of energy systems is essential not only to meet climate targets but to safeguard planetary health and Sustainable Human Development.
- Current **transition scenarios** often overlook social, political, and institutional implementation challenges, resulting in technically sound but practically unachievable pathways.
- Stakeholder consultations across Europe, Africa, and Asia reveal eight systemic categories of **barriers to implementation**. These include social resistance, economic constraints, policy incoherence, vested interests, administrative obstacles, infrastructure limitations, skills gaps and supply chain bottlenecks.
- Future modelling and policy design should integrate **stakeholder-informed feasibility insights** to align ambition with implementation capacity.

Main Challenges

Energy transition scenarios frequently rely on technical and economic modelling that does not capture the **institutional, political and social dynamics** determining whether policies can succeed in practice. As a result, pathways may appear feasible on paper but face overwhelming barriers on the ground. Across seven countries and the EU, stakeholders repeatedly highlighted affordability constraints, political resistance, misaligned incentives, weak governance structures, slow administrative processes, inadequate skills, ageing infrastructure, and supply chain vulnerabilities. These are not isolated problems but systemic and interdependent. If unaddressed, they undermine public trust, delay implementation, and weaken the credibility of climate targets, reinforcing the “**feasibility gap**” between ambition and reality.

Stakeholders from Kenya, Nigeria and Pakistan emphasised that limited fiscal space, governance fragmentation, infrastructure gaps and affordability constraints significantly reduce implementation capacity. These countries face distinct political economy pressures, including subsidy reforms, supply chain dependence and limited technical capacity, which can trigger public backlash if transitions are not designed inclusively. Effective cooperation requires **context-sensitive policy approaches** that account for structural differences and institutional realities across regions.

Policy Recommendations

> 1. Mainstream sociopolitical feasibility into transition modelling and policy planning

Scenario modelling must integrate real-world constraints such as governance capacity, institutional fragmentation, political resistance, social acceptance thresholds and stakeholder influence. Embedding these dynamics into modelling ensures that pathways are not just technically feasible but politically and socially implementable, reducing the risk of backlash or policy failure.

The National Energy and Climate Plans (NECPs) submitted in the 2026 cycle should include feasibility assessments covering social acceptance, administrative capacity, and political economy risks. The Commission should integrate such assessments into European Semester Country Reports.

> 2. Adopt inclusive, multi-stakeholder transition planning to enhance legitimacy, alignment and impact

Early and sustained engagement with actors at supranational, national, regional and local levels improves policy legitimacy, responsiveness and effectiveness. Regular, structured social and civil dialogue, including with unions, civil society, communities and industry, strengthens accountability, trust and public ownership of the transition.

Adopt an EU Civil Society Strategy as an interinstitutional agreement to formalise civil dialogue, safeguard civic space, and ensure long-term, flexible funding for civil society organisations. Require Member States to create dedicated Just Transition Coordination Bodies with structured participation of civil

society, trade unions, and local authorities in the design and implementation of NECPs, Social Climate Plans, and Territorial Just Transition Plans. Institutionalise multi-level participatory mechanisms, including regional assemblies, community-led initiatives, and local authorities, to ensure continuous monitoring and adjustment of transition measures.

> **3. Strengthen governance capacity and cross-sector coordination to overcome systemic implementation barriers**

Effective transitions require public administrations with the technical, administrative and financial ability to manage complex reforms. Strengthening vertical and horizontal coordination across ministries, agencies, and levels of government helps align sectoral strategies, reduce inconsistencies and accelerate implementation.

The NECPs and Social Climate Plans should aim to address administrative bottlenecks, governance fragmentation and skills shortages. Member States should also establish dedicated Just Transition Coordination Bodies to strengthen cross-sectoral governance and ensure coherent implementation across ministries and levels of government.

> **4. Design and finance socially equitable policies that address affordability barriers and minimise backlash**

To avoid public resistance, transition policies must proactively address cost distribution, affordability and perceived fairness. Targeted redistribution, clear communication, and equitable policy design ensure that vulnerable households are protected and that transitions enhance, rather than undermine, social wellbeing.

Require Social Climate Plans to include targeted affordability measures for vulnerable households, such as support for energy renovation, access to clean heating, and protection against energy poverty, funded through the SCF.

SPES Notable Evidence

Multi-country consultations across Europe, Africa and Asia revealed a striking convergence. Despite diverse political and socio-economic contexts, stakeholders consistently identified the same eight systemic barriers to implementation. This convergence illustrates that **feasibility challenges are structural, not context-specific**. The SPES evidence shows that these challenges are deeply interconnected, addressing one barrier often requires interventions in several others. For example, improving household affordability also demands better governance, stronger administrative capacity, and clearer policy signals.

The **stakeholder-driven approach** itself represents an innovation, combining high-level dialogues, national workshops and expert interviews to produce cross-country insights on feasibility.

These findings emphasise that technical modelling must be complemented by grounded, **participatory knowledge** to deliver transition pathways that are credible, equitable and implementable.



Final Remarks

Europe at a Crossroads: Advancing Sustainable Human Development

Europe stands at a pivotal moment. The findings of the SPES project make clear that that the coming decade will determine whether the EU can steer a transformation that both respects planetary boundaries and delivers sustainable and inclusive wellbeing for all. The urgency is undeniable as mounting climate risks, widening social inequalities, geopolitical instability, rising conflicts and persistent economic vulnerabilities demand coordinated action. However, this moment also presents a unique opportunity. The policy frameworks, scientific insights and societal awareness needed for substantial far-reaching change are already emerging. What is required now is the political will to act decisively and in partnership.

The need for an integrated approach

Sustainability transitions cannot succeed without integrating economic, social, environmental and governance dimensions into a coherent and mutually reinforcing agenda for SHD. Fragmented policymaking between sectors, disciplines or levels of governance risks slowing progress and deepening inequalities. The evidence presented throughout this handbook shows that transitions are most effective and legitimate when they are grounded in a coordinated, interdisciplinary approach and supported by strong multilevel governance, social dialogue, and empowered local actors.

Delivering such a transformation requires more than technical solutions

It demands collective ownership of transition pathways, shared responsibility for outcomes and a governance culture that is capable of aligning public institutions, private sector incentives, scientific expertise and community engagement. Citizens' perspectives, regional capabilities, global interdependencies and political feasibility must be recognised as integral to policy design, not as afterthoughts. When policies improve people's daily lives, strengthen fairness, and create visible opportunities, they become both socially legitimate and politically durable.

A clear call to action to EU policymakers

Europe must accelerate the implementation of just and sustainable transition policies by embedding equity, participation and human development at their core. Just transition instruments such as the Social Climate Fund should be strengthened and the integrity of the European Green Deal should be safeguarded. Investment in capabilities, skills and institutions is needed, and global partnerships that reflect climate justice must be advanced. The EU must also commit to better measurement, better governance, and better coordination, ensuring that what is valued is measured, and what is measured informs action.

The window for shaping a fair, resilient and sustainable future is now. With decisive leadership, multilevel collaboration and a shared vision rooted in SHD, Europe can drive a transition that not only reduces emissions but also enhances wellbeing, strengthens democracy and expands opportunities for present and future generations.

SPES Project

SPES (Sustainability Performances, Evidence and Scenarios) is research project funded by the European Union's Horizon Europe programme dedicated to understanding how societies can achieve human flourishing within planetary boundaries.

The project is carried out by a consortium of 12 partner organisations across Europe and beyond, including universities, research institutes and civil society organisations, bringing together expertise from economics, social sciences, environmental studies, innovation systems and participatory governance.

SPES places Sustainable Human Development at the centre of transition policymaking, organised around five interlinked pillars:

- Productivity – fostering the efficient and responsible use of economic, human and natural resources.
- Equity for all – promoting fair access to opportunities across social, economic, cultural and political life.
- Sustainability – safeguarding ecosystems and ensuring effective climate mitigation and adaptation.
- Participation and empowerment – enabling all individuals and communities to influence decisions that affect their lives.

- Human security – ensuring freedom from want and fear, and the capability to live with dignity.

Using a combination of quantitative modelling, multi-country case studies, participatory workshops, scenario analysis and econometric research, SPES investigates the economic, social and environmental transformations required for Europe to transition toward wellbeing within planetary limits.



How can productivity, equity, environmental sustainability, participation & empowerment, and human security be reconciled to drive the transition towards Sustainable Human Development in Europe?"

To answer this research question, the SPES project released 29 working papers / research reports and one Open Access book on

- Framework and policies
- Measurement
- Analysis of SHD Pillars
- Scenarios and models.

Moreover, 8 SPES Policy Briefs were released to influence the public debate on policy pathways towards Sustainable Human Development.

The project's findings inform and complement major EU frameworks including the European Green Deal and the European Semester, while generating insights relevant to global partners.



Funded by European Union's Horizon
Europe Programme under Grant
Agreement No. 101094551



Europe is navigating an era of profound transformation. Climate change, rising inequalities, demographic shifts, geopolitical instability, and pressures on competitiveness are converging into a complex policy landscape defined by uncertainty and urgency. Meeting these challenges requires not only accelerating the green and digital transitions, but rethinking the foundations of economic and social governance.

The SPES project contributes to this agenda by advancing Sustainable Human Development as an integrated paradigm capable of guiding Europe toward sustainable and inclusive wellbeing. This Impact Handbook gathers three years of interdisciplinary research into key insights and policy recommendations for EU and national policymakers.

It synthesises findings across thematic policy briefs, offering a systemic understanding of how Europe can deliver a just, green and resilient transition that improves current and future wellbeing for all, strengthens democratic legitimacy, and reinforces global solidarity.