Innovative sustainable economy

Interreg Euro-MED

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Weaving a Just Transition to Circular Economy through territorial cooperation:

Policy Recommendations from the Innovative Sustainable Economy Mission

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LIST OF ABBREVIATIONS

CE	Circular Economy
CEAP	Circular Economy Action Plans
ERDF	European Regional Development Fund
EU	European Union
GDP	Gross Domestic Product
ISE	Innovative Sustainable Economy
JT	Just Transition
JTF	Just Transition Fund
NGO	Non-Governmental Organisation
RAS	Result Amplification Strategy
SME	Small and medium-sized enterprise
TP	Thematic Project
UN	United Nations
VET	Vocational Education and Training

EXECUTIVE SUMMARY

This paper draws on insights from the Interreg Euro-MED Programme Innovative Sustainable Economy (ISE) Mission to explore how a Just Transition (JT) perspective can strengthen the transition to a circular economy (CE) ensuring that environmental progress goes hand in hand with social inclusion and territorial cohesion.

The Mediterranean faces increasing instability from intersecting pressures: geopolitical tensions, humanitarian crises, and rapid environmental degradation. Temperatures in the region are increasing 20% faster than the global average, intensifying ecosystem stress, damaging coastal and rural economies, and escalating risks linked to food security, water scarcity, mobility, and access to resources and services (MedECC, 2020).

To prevent climate change, the EU promotes the circular economy as a core economic model to replace the traditional linear economy by reducing waste, extending material life cycles, and shifting production and consumption patterns. At the same time, the transition unfolds across diverse territorial and socio-economic contexts. Differences in income levels, institutional capacity, labour market structures, and geographic conditions influence how regions and communities engage with and benefit from circular economy strategies (ADEME, 2024). Integrating these dimensions into policy and implementation frameworks can help maximise positive outcomes and ensure that the benefits of the transition are widely shared.

Using an intersectional Just Transition lens, this paper analyses eight thematic projects implemented under the Interreg Euro-MED ISE Mission, focusing on four key dimensions of the Just Transition. The analysis shows that, while Just Transition principles are not always explicitly framed as such, many projects already incorporate relevant elements in practice, particularly in areas such as stakeholder engagement, innovation ecosystems, and territorial cooperation. At the same time, the findings highlight opportunities to further strengthen the systematic integration of social considerations, including through enhanced monitoring approaches and more explicit consideration of long-term socio-economic impacts.

Building on these insights, the paper proposes a set of enabling conditions to support a more participatory governance, integrate social considerations into circular economy policies with a global external dimension, adopt place-based circular strategies addressing institutional and structural gaps, anticipate skills and employment needs, as well as foster synergies across EU policies and funding instruments.

The Interreg Euro-MED ISE Mission demonstrates that territorial cooperation programmes can act as policy laboratories for a socially grounded circular transition. Further strengthening the integration of Just Transition principles within EU funding instruments and regulatory frameworks can enable circular economy policies to deliver environmental objectives while reinforcing social justice and territorial cohesion across the Mediterranean.

INTRODUCTION

Innovation and environmental protection cannot come at the expense of social cohesion, just as economic growth cannot be pursued at the expense of ecological integrity. A balanced approach across the social, environmental, and economic dimensions of sustainability strengthens overall outcomes (Figure 1). When progress in one dimension occurs at the expense of the others, systemic imbalances and negative externalities are likely to follow (Purvis et.al., 2019).

The European Union has sought to address this challenge through long-term sustainability objectives aligned with the ambition of "living well, within the limits of our planet" (European Parliament & Council of the European Union, 2013). Over the past two programming periods, the European Commission has progressively strengthened its sustainability framework through the European Green Deal, setting the objective of achieving climate neutrality by 2050. This policy architecture rests on three main pillars: renewable energy, biodiversity and nature restoration, and circular economy.

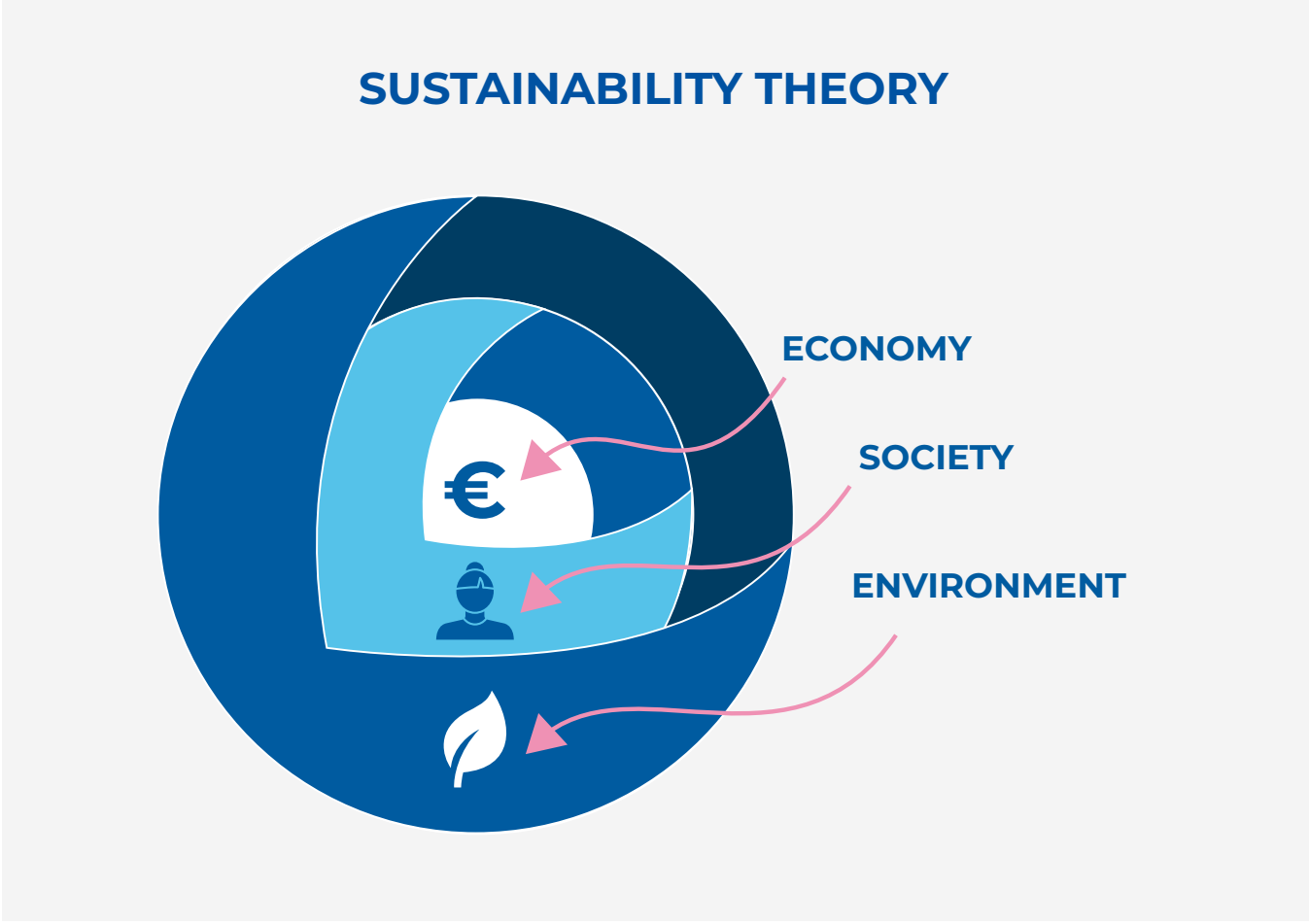


Figure 1. MedWaves, 2016. Sustainability theory.

Significant progress has been made in developing this comprehensive sustainability framework. However, despite the advancement of the EU's circular economy acquis—now positioned as a central pillar of both the Green Deal and European competitiveness—challenges of policy coherence persist (Rizos & Zambianchi, 2025). Circular economy initiatives vary in legal bindingness and frequently target specific sectors (such as construction and textiles) or product groups (including batteries, packaging, plastics and WEEE). As a result, implementation remains uneven across regions, interacting with diverse national and territorial frameworks and often reinforcing pre-existing structural disparities.

Moreover, the green agenda increasingly competes with security, defence, and short-term economic recovery priorities in a volatile geopolitical context. Recent evidence suggests that rising defence expenditure and short-term economic pressures can influence policy prioritisation and investment capacity, creating challenges for maintaining the pace and coherence of the green transition (Conflict and Environment Observatory, 2025).

The transition to a circular economy is not merely technological. It requires deep structural transformation in how products and services are designed, produced, consumed, and disposed of. Supporting this transformation demands coordinated policies across sectors and governance levels, as well as place-based approaches capable of embedding change within territorial development strategies. In this respect, EU cohesion policy—which accounts for roughly one third of the 2021–2027 EU budget—plays a critical role as a delivery mechanism for the green transition (Christou et al., 2025). Beyond its operational capacity, cohesion policy holds strategic potential to strengthen territorial resilience and mitigate the disruptive effects that structural economic shifts may generate.

Although the circular transition can generate economic opportunities and environmental gains, it also entails risks (ADEME, 2024). If poorly designed, it may exacerbate inequalities, disrupt traditional industries, and disproportionately affect vulnerable groups (Passaro et al., 2024). Circular economy discourse has often remained techno-economic, focusing on value chains and efficiency gains while underestimating distributional and social consequences (Gözet et al., 2025). The urgency of climate mitigation cannot justify overlooking social justice considerations.

Nowhere is this tension more evident than in the Mediterranean region. The region is warming 20% faster than the global average (MedECC, 2020), with temperatures already ~1.5°C above pre-industrial levels exceeding Paris Agreement targets, and faces converging environmental, geopolitical, and socio-economic crises that interact in complex ways. Coastal areas are increasingly exposed to extreme weather events, water scarcity, biodiversity loss and food insecurity. These pressures strain already fragile ecosystems, economies, and social systems, intensifying human mobility and tensions over resources. Furthermore, the circularity rate of material use in the EU as of 2024 was 12.2%, while in the Mediterranean EU countries the average circular material use rate was approximately 10.6% (Eurostat, 2025).

Farmers harvesting olives with nets and tractor in orchard. Photo: Envato.

Europe's economy is largely dependent on natural resources with raw materials increasingly feeding its manufacturing and industrial sectors, linked with the current status of perceived quality of life. Three consumption sectors (food, mobility, and housing) account for more than 80% of the EU's total material footprint (EEA, 2025). These indicators illustrate the slow transition rate of Europe both in terms of material use and waste generation (EEA, 2025).

As illustrated by Figure 2 (Eurostat, 2024), wealth distribution across European countries remains unequal, with a large share of poverty risk concentrated in Southern Mediterranean regions (notably parts of Southern Spain, Southern Italy, Greece, and Bulgaria), some exceeding 40%, indicating severe territorial disparities. In turn, Figure 3 (Eurostat, 2023) presents GDP per capita, confirming a persistent core–periphery divide and shows Western and Northern Europe dominating the high-income categories, while South-Eastern Europe and parts of the Mediterranean cluster in the lower bands. It also highlights that peripheral, rural, and Southern regions lag behind, whereas metropolitan areas concentrate higher income levels.

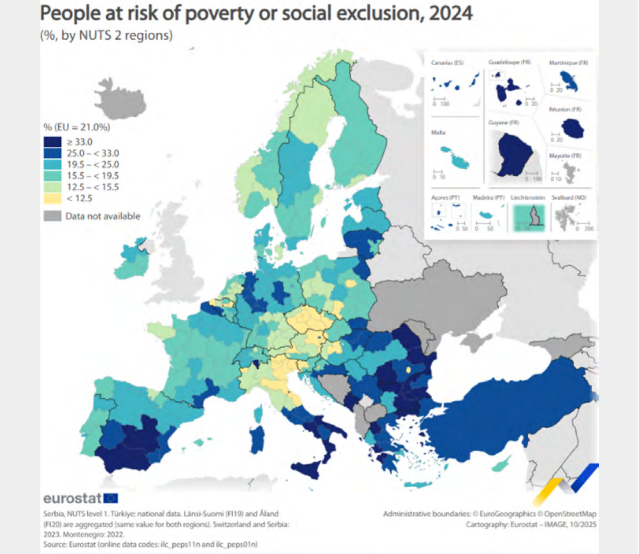


Figure 2. Eurostat, 2024. Wealth distribution in Europe.

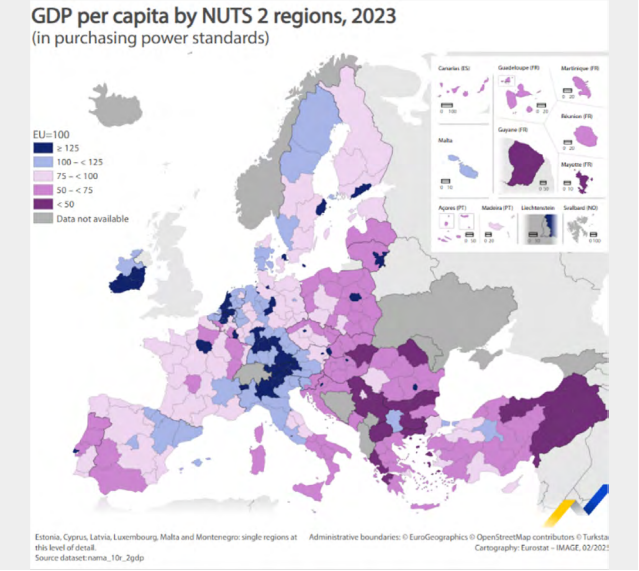
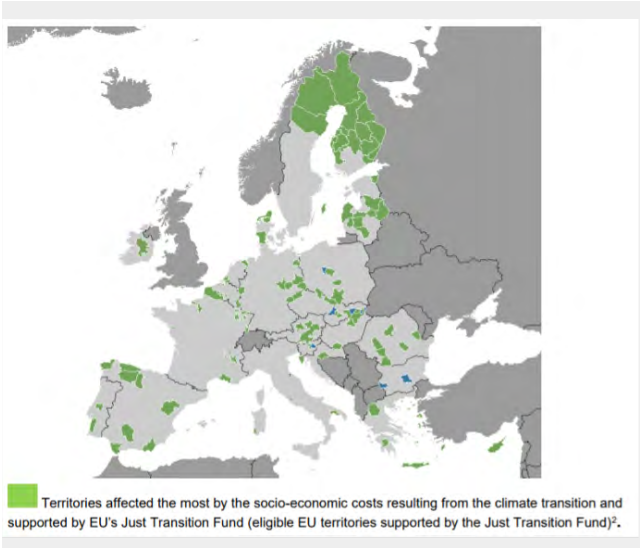


Figure 3. Eurostat, 2023. GDP per capita in European regions



In contrast, it is noteworthy that most territories benefiting under the Just Transition Fund eligibility framework are traditionally highly industrialised regions, as illustrated in Figure 4 (Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund- JTF)).

JTF-supported areas are primarily concentrated in regions with strong industrial legacies, particularly those dependent on coal, carbon-intensive industries, and heavy manufacturing, whereas regions facing higher poverty risks are often left behind. This is because the JTF determines eligibility mainly on the basis of technical criteria related to industrial transition and carbon intensity, rather than systematically incorporating broader considerations such as territorial cohesion, wealth distribution, and structural socio-economic vulnerability. As a result, regions that are structurally disadvantaged in terms of wealth distribution and income levels, but lack heavy industrial profiles, risk being under-supported.

This reveals a structural tension between climate transition policies and cohesion policy. While the poverty and GDP maps (Figure 2 and 3) highlight deep territorial inequalities in Southern and South-Eastern Europe, JTF targeting does not systematically align with these socio-economic vulnerabilities (Figure 4). This underscores the need to embed social considerations into transition funding in order to ensure a socially balanced and territorially cohesive green transition, with stronger integration of cohesion objectives into climate instruments.

Figure 4. Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund)

Climate and environmental risks are not experienced equally. Vulnerable populations—including low-income households, outdoor workers, migrants, and women—face disproportionate exposure and limited adaptive capacity. Heatwaves, flooding, and extreme events exacerbate pre-existing inequalities in housing quality, employment conditions, access to services and social protection. The 2024 floods in Valencia, which caused over 220 fatalities, demonstrated how poor urban planning, socio-economic vulnerability and governance gaps can amplify disaster impacts (Galvez-Hernandez, et.al). Migrant communities and individuals in irregular administrative situations were disproportionately affected and often excluded from recovery mechanisms. Gender dimensions further compound vulnerability: women are overrepresented in precarious, informal, and care-sector employment, which increases exposure to economic shocks and reduces access to reskilling opportunities and decision-making processes (UNECE, 2024).

These dynamics highlight that the circular transition must be embedded within a broader just transition framework—one that explicitly addresses social equity, intersectionality, and territorial disparities.

Within this context, the Interreg Euro-MED Programme provides a unique architecture for Mediterranean partners to co-develop, test, and amplify circular economy solutions. Beyond environmental innovation, the Programme offers an opportunity to integrate social dimensions more systematically, strengthening both the effectiveness and legitimacy of the transition.

This policy paper therefore explores the nexus between circular economy and just transition through an intersectional lens. It examines how, even where not explicitly framed as such, many projects contribute to governance inclusiveness, social and territorial cohesion, and reskilling and job creation. By making these contributions visible and measurable, the Programme can enhance policy coherence, align innovation with cohesion objectives, and position Interreg Euro-MED as a laboratory for socially grounded green transformation in the Mediterranean.

KEY POLICY INSIGHTS

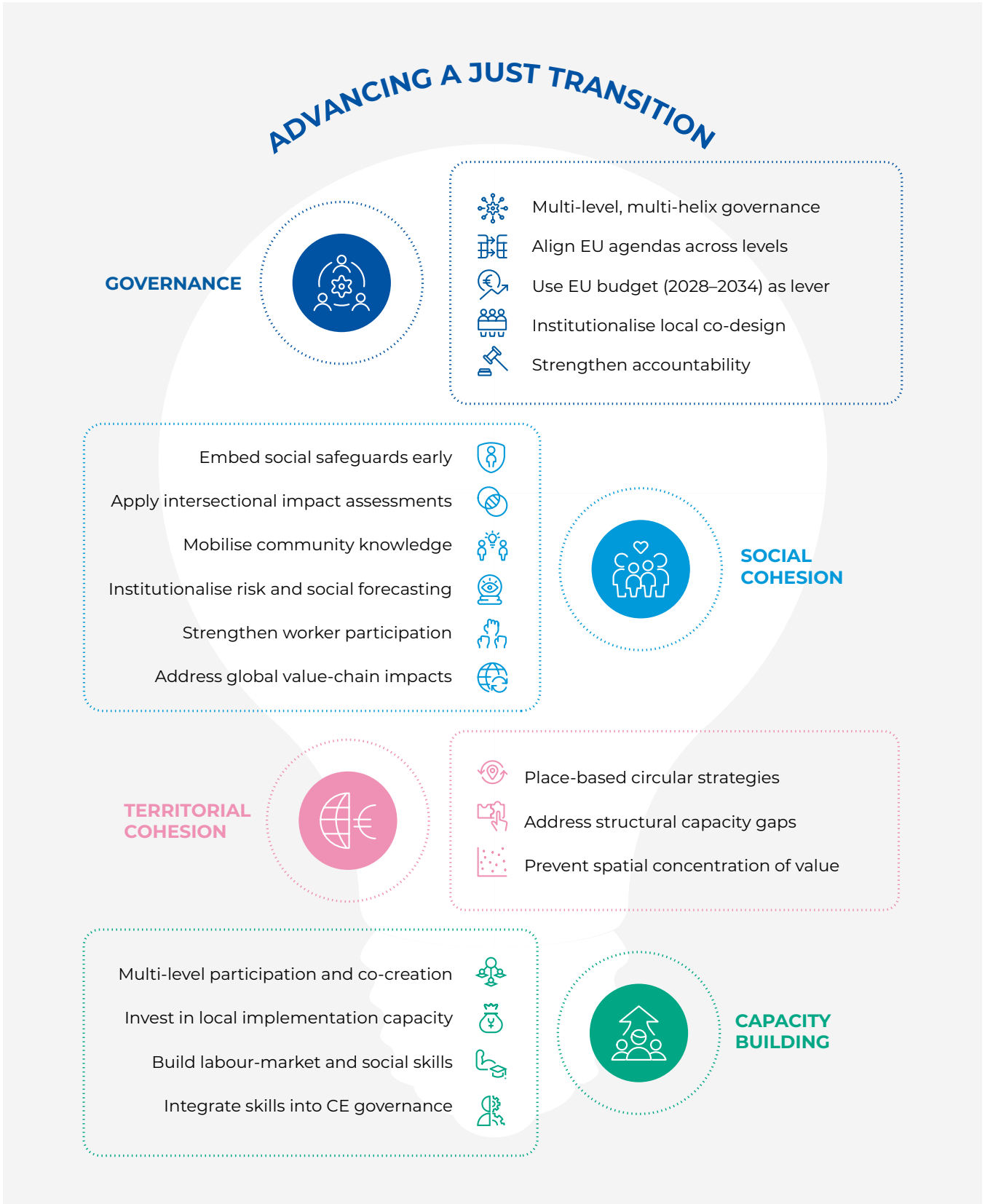


Figure 5. MedWaves, 2026. Key policy insights.

CONTEXT AND RATIONALE

Circular Economy

Cohesion policy and EU funds have long acted as engines of structural transformation across European regions. The circular economy, now a core pillar of the European Green Deal, builds on this tradition by promoting a systemic shift from the linear "take–make–dispose" model toward one that keeps materials and products in use for as long as possible.

Rather than focusing solely on waste management, the circular economy reconfigures the entire production–consumption cycle. It promotes eco-design, reuse, repair, refurbishment, recycling and sharing models, addressing all stages of value chains—from sourcing and production to consumption and revalorisation (European Parliament, 2023). Beyond environmental benefits, CE aims to reduce Europe's dependency on imported critical materials and strengthen economic resilience (Figure 5).

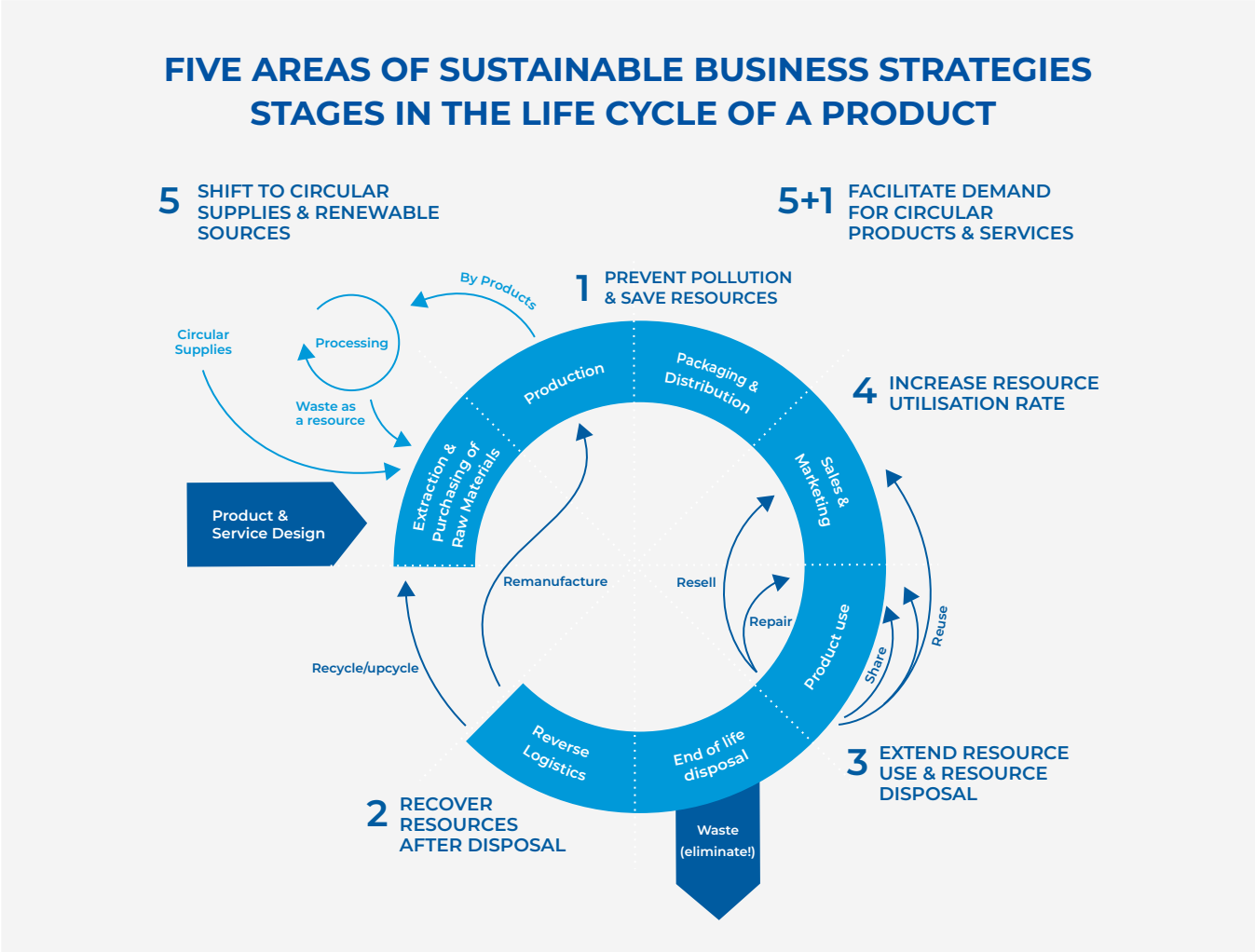


Figure 6. MedWaves, 2021. Circular Economy.

Embedded within the broader Green Deal framework and aligned with the UN 2030 Agenda, the circular transition seeks to reduce environmental impacts while supporting competitiveness and innovation. However, its implementation remains vulnerable to shifting political priorities and geopolitical pressures, which risk deprioritising long-term environmental and social objectives.

EU Policies and Regulations

The EU circular transition is supported by a diverse legislative framework with varying degrees of binding force. Regulations and Acts apply directly across Member States, creating uniform obligations. Directives set common objectives but allow national flexibility in implementation. Decisions apply to specific actors, while non-binding instruments—such as strategies, recommendations, and communications—shape priorities and funding orientations.

Since 2015, the EU has strengthened its circular economy framework through two Circular Economy Action Plans (CEAP), progressively shifting from waste-centred measures to systemic value-chain transformation. The 2020 CEAP, embedded within the European Green Deal, prioritises sustainable product design, consumer empowerment and high-impact sectors such as electronics, batteries, and packaging.

Complementary initiatives—including eco-design rules, extended producer responsibility schemes and sectoral strategies—further operationalise circularity. Recent developments, such as the European Climate Law and the Fit-for-55 package, legally anchor decarbonisation objectives. The forthcoming Circular Economy Act aims to consolidate this framework by facilitating the free movement of circular products and secondary raw materials while enhancing competitiveness and economic security.

Crucially, cohesion policy and the Just Transition Fund (JTF) provide the territorial delivery mechanisms for this transformation. The JTF specifically supports regions facing socio-economic challenges due to decarbonisation, mitigating adverse employment impacts, and fostering diversification toward climate-neutral activities.

Engineers working with robotic equipment. Photo: Envato

Just Transition

As governments accelerate decarbonisation efforts, concerns have grown about the uneven social impacts of the green transition. The concept of Just Transition responds to this risk by ensuring that environmental transformation occurs in a fair, inclusive, and rights-based manner (ILO, 2024; UNDP, 2022).

The EU frames Just Transition around three core elements:

- Climate neutrality, anchored in the legally binding 2050 target.
- Territorial focus, recognising that impacts are uneven across regions.
- Social fairness and economic diversification, including reskilling, job creation, SME support and social dialogue.

While the Just Transition discourse has primarily focused on employment impacts—particularly in fossil fuel-dependent regions—it should be extended beyond labour-market measures. A circular transition is not just by default, but by design (EEA, 2025). It requires integrating broader dimensions of inequality, including gender, migration status, socio-economic position, and territorial disparities.

Intersectionality

Intersectionality, first conceptualised by Kimberlé Crenshaw (1989), provides a framework for understanding how overlapping social identities shape differentiated access to resources, opportunities, and rights. Without an intersectional lens, circular economy policies risk reinforcing existing inequalities.

Applying intersectionality in the circular transition means designing targeted, context-specific solutions that account for compounded vulnerabilities. It shifts the focus from generic categories (“women” “youth”) to a nuanced understanding of how multiple forms of disadvantage interact, particularly at the local and territorial levels where inequalities are most visible.

Nexus between CE and JT: How a Just transition and CE support economic stability

Circular Economy (CE) and Just Transition (JT) frameworks are intrinsically complementary, yet they have largely evolved along parallel policy tracks within the European Union.

While CE policies focus on resource efficiency, product design, and industrial transformation, they do not always systematically address the social and distributional implications of these changes. Conversely, the EU Just Transition framework, primarily developed in the context of climate neutrality of fossil fuels dependent territories, places strong emphasis on labour market impacts, social protection, and regional equity, but has not been consistently extended to transformations driven by resource use and circularity.

However, the structural changes required by the transition to a circular economy, such as the reconfiguration of value chains, shifts in industrial processes, changing skills demands, and impacts on SMEs and local economies, generate socio-economic effects that are comparable in nature and scale to those associated with decarbonisation.

This integrated approach becomes particularly tangible at the territorial level, where environmental and economic transformations intersect with local labour markets, industrial ecosystems, and social structures. It is at this scale that policy coherence between circular economy objectives and Just Transition principles can be effectively translated into practice.

EU Cohesion policy plays a central role in enabling this nexus. As the EU's main investment framework for territorial convergence, it provides the governance architecture and financial capacity to align green transformation with social inclusion objectives. By embedding circular economy investments within regional development strategies, cohesion policy can prevent territorial fragmentation, mitigate uneven impacts, and strengthen local resilience.

In this context, the Interreg Euro-MED Programme functions as a laboratory for implementing the circular–just transition nexus. By supporting cross-border cooperation, pilot actions and multi-level governance experimentation, it allows regions to test socially grounded circular solutions tailored to Mediterranean specificities. Projects that integrate SME support, skills development, inclusive governance and rural or peripheral targeting demonstrate how environmental innovation can simultaneously advance social cohesion.

Embedding an intersectional Just Transition lens within circular economy initiatives strengthens both economic stability and territorial resilience. It ensures that circular measures are not only environmentally effective, but also socially inclusive, locally anchored and aligned with cohesion objectives. Through such integration, the circular transition can contribute to sustainable growth while reinforcing social justice across Mediterranean territories.

Dimensions of a Just Transition analysed

Drawing on the key pillars of the Union's Just Transition Mechanism (European Commission, 2021), this paper analyses the following interconnected dimensions:

1. Governance Inclusiveness and Multi-Helix Participation (Procedural justice)

This dimension reflects procedural justice, which concerns the fairness, inclusiveness, and transparency of decision-making processes (Gözet, et.al., 2025). It examines the extent to which thematic projects embed participatory governance mechanisms that enable meaningful engagement of 4- and 5-helix stakeholders (public authorities, private sector, academia and research institutions, civil society organisations, and the environment through environmental organisations). The 4-helix model refers to collaboration between public authorities, the private sector, academia, and civil society in designing and implementing policies and innovation, while the 5-helix model extends this framework by adding the environmental dimension, ensuring that governance and innovation processes integrate ecological sustainability (Carayannis, et.al. (2012). It assesses whether projects move beyond consultation towards co-design, shared decision-making, and collaborative implementation, including the different stakeholders involved.

Inclusive governance strengthens policy legitimacy, ensures that context-specific needs are addressed, and enhances the social responsiveness and long-term sustainability of circular economy interventions.

2. Social Cohesion and Intersectionality (Recognitional justice)

This dimension is grounded in recognitional justice, which focuses on the acknowledgment of diverse identities, needs and vulnerabilities (Gözet, et.al., 2025). It evaluates how projects identify and address differentiated social impacts across intersecting factors such as gender, age, socio-economic status, ethnicity, disability, migration experience and territorial vulnerability.

Rather than treating target groups as homogeneous categories, an intersectional approach considers how multiple forms of inequality overlap and shape access to resources, opportunities, and decision-making. This dimension assesses whether projects anticipate distributional impacts at the design stage and ensure that no group is disproportionately burdened or excluded from the benefits of the transition.

3. Territorial Cohesion (Cohesion Policy Perspective)

This dimension reflects the spatial dimension of distributional justice, focusing on how the costs and benefits of the transition are distributed across territories. Territorial cohesion refers to the reduction of structural and spatial disparities across European regions. It acknowledges uneven levels of economic development, institutional capacity, infrastructure, innovation ecosystems and access to finance within the European Single Market.

From a Just Transition perspective, this dimension assesses whether circular economy interventions are adapted to territorial asymmetries, particularly in peripheral, rural, island or economically lagging regions. It examines whether projects contribute to balanced development, reduce regional gaps, and prevent the concentration of costs and benefits in already advantaged territories—in line with the objectives of EU cohesion policy.

4. Capacity-Building, Reskilling and Job Creation (Distributional and Restorative justice)

This dimension combines distributional justice—ensuring fair access to economic opportunities—with restorative justice, which focuses on supporting those negatively affected by structural change (Gözet, et.al., 2025). It assesses the development of skills, institutional capacities and employment opportunities required to support the circular transition.

It examines whether projects:

- Strengthen local and regional administrative capacity
- Support SMEs and entrepreneurship
- Promote reskilling and upskilling aligned with emerging green sectors
- Contribute to decent job creation.

This dimension connects environmental transformation with economic diversification and labour-market resilience, ensuring that structural change generates sustainable and inclusive growth.

A woman working at a waste recycling station, sorting garbage for further processing. Photo: Envato

METHODOLOGY

Following European Union regulatory frameworks and mechanisms supporting a Just Transition, this paper undertakes a systematic literature review of academic and policy sources on Just Transition and the Circular Economy, with specific attention to their intersection in the Mediterranean context. The review identifies key concepts, dimensions, and indicators related to territorial justice and circular practices.

This framework is further used to analyse qualitative data from eight Interreg Euro-MED Innovative Sustainable Economy (ISE) Mission's thematic projects, including project documentation, deliverables, and bilateral interviews with implementing partners. A total of eight interviews were conducted to examine the contribution of the thematic projects from a Just Transition perspective.

Selection of projects prioritised those classified under the programme's Specific Objective on circular economy, as well as elements such as the project phase and the presence of a measurable social impact component. An intersectional Just Transition lens has been used to evaluate how Interreg Euro-MED projects contribute to a Just Transition to a circular economy, and how they can further strengthen such a transition harnessing a territorial and community-based level into implementation.

Although the concept of Just Transition is often not explicitly referenced, the analysis is based on the hypothesis that the Interreg Euro-MED ISE Mission thematic projects are contributing to a Just Transition.

From this, the paper examines how a Just Transition can be more systematically embedded in regulatory mechanisms and in EU-funded programmes supporting the green transition. To this end, a set of policy measures has been developed.

ANALYSIS

The Interreg Euro-MED ISE Mission

The Interreg Euro-MED is a broad coalition of organisations and institutions committed to promoting sustainability in the Mediterranean. It is grounded in the principle of territorial cooperation and in working together to address common challenges, because regional and global issues such as climate change cannot be tackled alone. It treats the Mediterranean economy as an inter-linked system in which resource efficiency, climate neutrality and social equity reinforce each other across maritime, agricultural, industrial, and urban metabolisms. At the same time, the programme recognises local and context-specific particularities. Thus, the ISE Mission promotes innovation by interlinking green and blue economy actions under the umbrella of Thematic Projects clustered into four focus areas—marine resources, agri-food systems, industrial transition, and resource valorisation—that use a multi-actor and multi-level approach to develop and implement practical tools, methods, and policy instruments across the region and test region-based solutions to context-based challenges. These projects act as cooperation platforms, fostering sustainable economic innovation tailored to local contexts.

Figure 7. ISE Mission TPs call 02. Fanny Didou, 2024.

The ISE Mission's know-how is grounded in field implementation and addresses environmental, social, economic, technical, and governance challenges. The thematic projects are clustered into four focus areas that provide context-sensitive solutions to local and regional problems, using participatory and consultative processes to align environmental, economic, and social impacts with local needs.

Marine Resources

Projects address the blue economy and marine pollution, for example by advancing solutions for offshore wind energy and maritime spatial planning tools, promoting sustainable aquaculture practices, and supporting marine biowaste valorisation.

Industrial Transition

Projects promote green business models, sustainable product design, and eco-innovation in Small and medium-sized enterprises (SMEs), for instance by accelerating circular business models, integrating green practices in public authorities, and supporting youth entrepreneurship.

Agri-food Systems

Projects focus on sustainable value chains, agro-ecology and reducing agriculture's environmental footprint, including initiatives to promote decarbonisation practices, protect aquifers through better monitoring, and develop certificates of sustainability and authenticity for products such as olive oil.

Resource Valorisation

Projects target waste prevention, material recovery, and urban circularity initiatives, helping territories reduce resource use and increase the value extracted from materials already in circulation.

Through the Interreg Euro-MED ISE Mission's Result Amplification Strategy (RAS) thematic projects outcomes are synthesised and capitalised by two governance projects, which ensure that technical knowledge and tested approaches are transferred into public policy frameworks at regional, national, and EU levels. Together, they make a substantial contribution to a circular, climate-neutral Mediterranean economy.

Marine Resources

Project	Sector
SPOWIND	Wind energy
2B-BLUE	Blue biotechnology
AZA4ICE	Aquaculture
BLUE ECOSYSTEM	Blue economy
AquaBioNets	Plastic pollution and aquaculture
RECONNECT	Marine bio-waste revalorisation

Industrial Transition

Project	Sector
CircleMED	Circular Economy acceleration
GreenSmartMed	Sustainable manufacturing
REVIVE	Rural and sustainable tourism
ProcuraMED	Green procurement
Sole MED	Youth entrepreneurship
BIOSTARS	Bio-economy system
WATERVILL	Water quality and scarcity in rural areas

Agri-food System

Project	Sector
Carbon Farming MED	Decarbonisation
CLEPSYDRA	Nature protection
OliveOilMedNet	Origen certification
IDRON	Irrigation systems

Resource Valorisation

Project	Sector
REPper	Repair
eWAsTER	WEEE management
VERDEinMED	Textile waste
CirBioWaste	Bio-waste management
SHARE.MedWATER	Water management
EcoMedIslands	Islands waste management

Governance Inclusiveness and Multi-Helix Participation

Governance inclusiveness emerges across the thematic projects as an inherent structural element, operationalised through beneficiary-centred open innovation ecosystems. Thematic projects move beyond traditional stakeholder consultation and instead operationalise structured multi-helix ecosystems that embed co-design, shared decision-making, capacity-building, and territorial anchoring. These participation mechanisms range from 4-helix to 5-helix models, with the environment explicitly integrated as a core stakeholder dimension, represented by conservation associations and NGOs.

BLUE ECOSYSTEM integrates a transformative innovation methodology through its TRAIN Labs (TRansformation Accelerator for INnovation), where actors across public authorities, academia, industry, civil society, and environmental stakeholders collectively co-identify local challenges before defining solutions. This challenge-driven innovation approach collects solutions through an open-innovation call ensuring broad participation of stakeholders fostering participatory design and service design. Sustainability is framed as a "fifth helix," embedding environmental considerations structurally within governance logic. Similarly, **AZA4ICE** institutionalises multi-actor collaboration through the LiRRIEs (Living Responsible Research and Innovation Ecosystems) model, designed explicitly to include public, private, research, civil society, and environmental actors in developing Action Plans. Particular emphasis was placed on engaging local actors to ensure that local knowledge and individual experiences were meaningfully integrated into the analysis. In spatial planning processes, the project emphasises that all voices should be heard, extending participation beyond the aquaculture sector to tourism and other local economic activities.

Although the project was not part of the interview sample, project documentation indicates that 2B-BLUE project embeds participatory mechanisms by organising Transformation Labs (T-Labs), based on the Living Labs concept, interconnected at national and transnational level according to 5-helix approach, creating networks of diverse actors working together under inclusive and participatory actions. It also promotes public-private partnerships for funding solutions, targeting the acceleration of blue biotechnology transferring in the other territories.

AquaBioNets also demonstrates a quintuple-helix structure, embedding academia, SMEs, public authorities, civil society, and environmental actors both within the consortium and as active target groups. Through a Living Lab methodology, the project operationalises co-creation rather than top-down implementation, explicitly framing sustainability as co-designed with local actors to ensure that competitiveness and local jobs are not undermined. This bottom-up governance orientation reinforces the territorial legitimacy of innovation processes.

Other projects demonstrate inclusive governance through functional mechanisms. REPper embeds participatory design through community needs mapping, engagement with associations and citizens, and the creation of a skills portfolio tailored to local demands. Through the REPper Hubs, REPper establishes a transnational network that fosters an industrial ecosystem that embeds repair culture in business planning. Its governance inclusiveness is further strengthened by attention to gender mainstreaming, intergenerational exchange, and the inclusion of marginalised groups via local associations. Here, inclusiveness is operationalised through labour-market integration and reskilling pathways, thereby contributing to social cohesion during the circular economy transition.

VERDEinMED adopts a sectoral governance model through its Knowledge Platform, a dedicated digital tool that provides information on textile circularity. Under the VERDE Bussola ("Green compass") umbrella, participatory mechanisms are embedded targeting industry, consumers, and policymakers simultaneously to foster exchange, dialogue and co-creation. The VERDE Academy functions as a support service ecosystem, combining mentorship for micro and small enterprises, policy-oriented study visits, and Living Lab engagement for citizens. This layered governance structure ensures that regulatory, market, and behavioural dimensions are addressed in parallel.

REVIVE illustrates governance inclusiveness through territorially embedded cluster-building and advisory boards. Participation was open to all local stakeholders, and advisory boards included chambers of commerce, tourist boards, foundations, and community representatives. Notably, local authorities were directly involved in governance and implementation. Action plans were co-created and implemented collectively, reinforcing ownership beyond the project lifecycle. This co-design and co-implementation approach strengthens both territorial cohesion and institutional sustainability.

CircleMED presents a more technically oriented governance model. SMEs primarily participate in testing a circularity decision-support tool, while citizens contribute through surveys and focus groups via Future Labs that inform policy guidance and raise awareness of the potential contribution of the circular economy.

Carbon Farming MED ensured governance inclusiveness by engaging local farmers across diverse operational scales, integrating their knowledge and experience into project design and implementation. Through open calls, farmers interested in accessing carbon credit schemes could apply to receive the necessary tools and technical support, enabling them to diversify their income streams and participate in emerging green markets.

Across projects, several cross-cutting governance features can be identified. First, there is a shift from consultation toward co-creation, particularly in projects using Living Labs or structured ecosystem methodologies. Second, local authorities frequently act not merely as endorsers but as co-owners of processes, increasing legitimacy and long-term sustainability. Third, participation often extends beyond economic stakeholders to include youth, NGOs, schools, and environmental actors, broadening the social base of transition governance.

However, differences remain in the depth of formalised inclusiveness. Some projects rely more on functional participation linked to capacity-building or technical piloting. Nevertheless, collectively the thematic projects illustrate a transition toward governance ecosystems that integrate multiple societal actors across territorial levels.

This multi-actor participation approach is a foundational condition for advancing a Just Transition to a circular and sustainable Mediterranean economy, as it anchors innovation processes within shared responsibility, territorial ownership, and cross-sector collaboration.

Social Cohesion and Intersectionality

The thematic projects incorporated elements of intersectionality to varying degrees, often implicitly rather than through a structured analytical framework. While some projects explicitly name gender and age as design considerations, others embed inclusion indirectly (e.g., affordability, land-tenure structure, or community-based delivery), without using an intersectionality framing.

AquaBioNets frames cohesion in coastal communities as "not losing competitiveness and local jobs" while shifting to biodegradable nets, explicitly arguing that sustainability should be co-created with local actors and that no one is left behind through broad stakeholder engagement and capacity-building (fisheries, SMEs, authorities, civil society/environmental actors). This locates social cohesion in informed participation along the value chain (avoiding a top-down transition that would concentrate costs on local producers).

REPper includes elements of intersectionality at the design level, especially targeting youth for reskilling into repair professions, and deliberately mixing generations (older repair culture + youth skills pipeline) as an intergenerational cohesion mechanism. By mapping local associations, the project reaches marginalized beneficiaries and vulnerable communities.

AZA4ICE presents social cohesion mainly through "social inclusion" and social sustainability in regions historically dependent on aquatic ecosystems, arguing that livelihoods and intergenerational continuity require a transition to more sustainable aquaculture. Participation is structured through "Living Responsible Research and Innovation Ecosystems" that co-design activities with local authorities, SMEs, researchers, and civil society, aiming to ensure no stakeholder category is left behind. The project also targets youth explicitly via school-level activities to build longer-term social acceptance and literacy, developing among other dedicated pedagogical comic book and board game. AZA4ICE also engaged local communities in clean-up activities around the pilot sites, thus building an eco-consciousness society. Local knowledge and experience were central to the analysis phase.

REVIVE links cohesion to rural resilience and demographic dynamics: keeping small rural businesses viable, encouraging collaboration to reduce costs and strengthen competitiveness, and addressing youth depopulation by rebuilding economic activity. It operationalises inclusion through "innovation community cooperatives" built via co-design and open to everyone participation (local authorities, citizens, SMEs) as a local cohesion infrastructure.

Digital capacity-building is designed with hands-on exposure and links to digital innovation hubs, acknowledging barriers for communities less familiar with e-commerce and platforms.

CircleMED provides evidence of inclusion via research design rather than targeted outreach. It also reports that results show differences in attitudes toward circular economy by gender, age cohort, income, and education.

VERDEinMED's inclusion lens is present via mentorship/coaching, and citizen-facing living labs with students and consumer campaigns.

While not part of the interview sample, SPOWING develops a Web-GIS decision making tool, applying a transversal and multi-level approach through multiple data layers. Supporting offshore wind farms feasibility studies, the project contributes to planning that can act as catalyst for community development, reducing energy poverty, creating local jobs, and strengthening trust through participation and inclusion.

While intersectional elements are recognised as necessary to ensure a socially embedded green transition, they were not consistently integrated as formal design criteria supported by measurable indicators.

Overall, intersectionality in the analysed projects appears in three main forms:

- Representation-based inclusion (e.g., age)
- Territorial differentiation (coastal, rural, urban economic structures).
- Accessibility and affordability considerations (cost barriers, service availability).

The main gap lies in the absence of systematic intersectional impact assessment frameworks. While projects demonstrate awareness and practical efforts toward inclusiveness, few integrate structured intersectional monitoring tools, disaggregated indicators, or forecasting mechanisms to anticipate differentiated long-term outcomes. Intersectionality is present in practice, but not yet fully institutionalised as a design and evaluation principle.

Territorial cohesion

Analysis of thematic projects highlights that the Mediterranean is not a homogeneous socio-economic space but a constellation of different realities, regulatory contexts, and cultural attitudes. This reflects a core territorial cohesion issue: EU-level frameworks are often designed and implemented unevenly across the region.

Territorial cohesion across thematic projects is primarily operationalised through three interlinked dimensions: (1) an explicit place-based governance, tailoring circular solutions to the socio-economic realities of specific regions rather than applying uniform models; (2) reduction of structural territorial disparities (coastal–rural–urban, smallholders–large operators), and (3) long-term territorial anchoring beyond project cycles.

A strong territorial logic is evident in projects structured around place-based challenges. For instance, projects such as BLUE ECOSYSTEM, AquaBioNets, AZA4ICE, and REPper begin with a territorial needs mapping, demonstrating strong alignment with cohesion policy logic, and reducing social cohesion risks. Some actively manage interactions between economic sectors, reducing conflict and promoting symbiotic cross-sectoral relations.

A couple walking on a promenade by the Mediterranean Sea. Photo: Envato.

AZA4ICE applies an ecosystemic spatial planning framework for identifying Allocated Zones for Circular Aquaculture (C-AZA) combined with LiRRIEs governance ecosystems, ensuring that aquaculture allocation decisions consider interactions with other local economic sectors and local development strategies. The emphasis on the co-decisions of allocated zones, species suitability, circular production systems focusing on multi-trophic circular production systems focusing on demonstrates territorial specificity rather than one-size-fits-all replication. This contributes to cohesion by preventing sectoral displacement and enabling coexistence within shared spaces.

SPOWIND aligns its actions with EU regulatory frameworks and objectives, ensuring that renewable energy and innovation strategies comply with European standards.

At the same time, the project grounds its interventions in the analysis of local needs, territorial potential, and region-specific challenges, ensuring that policy solutions are place-based, inclusive, and responsive to diverse socio-economic and environmental contexts. SPOWIND aims to relate existing legislation between countries at national and regional levels to achieve better coordination of offshore wind projects in the Mediterranean.

Similarly, **BLUE ECOSYSTEM**'s TRAIN Labs aim to identify local challenges before proposing solutions, reinforcing a bottom-up territorial diagnostic approach. The inclusion of multiple sectors within defined pilot territories reduces conflict risk and supports functional integration of economic activities.

2B-BLUE is reinforcing and consolidating a blue-biotechnology innovation community, strengthening the relationships among its organizations in a multilateral coordination framework, enlarging the territorial dimension.

AquaBioNets directly addresses territorial dependence on aquaculture across Mediterranean coastal regions. By stressing that transition should not undermine competitiveness or local jobs, the project explicitly links environmental innovation to territorial economic stability. The use of Living Labs and multi-actor co-creation reduces the risk of uneven transition impacts across coastal communities whose livelihoods depend heavily on marine resources. The multi-country Mediterranean scope further reinforces macro-territorial cohesion by aligning approaches across regions sharing ecological and economic interdependence.

REPper contributes to territorial cohesion through local repair hubs and skills pipelines that reconnect communities to circular practices, while enabling cross-national transfer of expertise. The project acknowledges differing approaches to repair culture among participating countries and highlights the lack of regulatory cohesion, which constrains the scaling and harmonisation of circular repair models across territories.

REVIVE and **Carbon Farming MED** help reduce territorial disparities by addressing rural–urban divides and smallholder disadvantages through cooperative and cluster-based mechanisms. REVIVE focuses on rural and mountainous areas, tackling depopulation, low levels of digitalisation, and weak local economies through community-based cooperatives and targeted capacity-building measures.

Carbon Farming MED highlights a core challenge to territorial cohesion: structural inequality in access to carbon markets driven by fragmented land ownership patterns. Certification and market entry require scale, upfront investment, and significant administrative procedures, which disproportionately disadvantage Mediterranean smallholders. The Mediterranean agricultural ecosystem is structurally smaller in scale compared to the average European model, as a result, uniform implementation regulations produce uneven effects. The cooperative model attempts to correct this imbalance by enabling small-scale farmers to collectively access new green revenue streams. This addresses horizontal disparities between large and small agricultural territories and reduces the risk that green transition benefits will concentrate in already advantaged regions.

VERDEinMED supports territorial cohesion by implementing place-based circular economy solutions aligned with local economic structures, reducing disparities between Mediterranean regions with unequal innovation capacity and infrastructure.

CircleMED provides evidence-based policy support through territorial surveys and gap analyses aligned with OECD frameworks. Its representative sampling approach enables territorial-level diagnostics of perceptions of the circular economy across demographic groups.

The Mediterranean macro-regional logic of the programme strengthens cohesion by reducing inequalities, reinforcing local economic resilience, and ensuring that circular transition pathways reflect regional capacities and vulnerabilities.

Capacity-Building, Reskilling and Job Creation

Capacity-building and reskilling emerge as one of the most structurally embedded and labour-oriented dimensions across the thematic projects, with training and skills systems embedded from the design phase rather than treated as secondary outputs.

REPper operationalises reskilling most directly by creating a needs-based training pipeline, including training kits and a structured skills portfolio, explicitly targeting young people as future repair professionals while engaging associations and marginalised groups to widen access. Intergenerational exchange functions both as a knowledge transfer and as a social cohesion infrastructure. The approach moves beyond awareness-raising toward labour-market integration, linking circular economy practices to concrete occupational pathways.

VERDEinMED combines "train-the-trainer" schemes with the Verde Academy model, offering mentorship and coaching to micro and small enterprises—including very small, single-person businesses—while also organising study visits to strengthen policy-makers' applied understanding.

AquaBioNets positions capacity-building as a safeguard against exclusion, developing training materials and dedicated events to enable aquaculture actors to adopt biodegradable materials and practices without jeopardising competitiveness or local employment. Training materials and capacity-building events aim to ensure that fisheries and SMEs can adopt new materials without economic displacement.

AZA4ICE integrates capacity-building structurally into its LiRRIEs stakeholder ecosystems and complementary outreach tools (including school-based activities and educational materials), fostering long-term sectoral literacy and cultural acceptance of circular aquaculture in traditionally structured industries. Additionally, the co-creation of these aquaculture zones generated new business opportunities either by enhancing existing businesses become more circular or establishing new ventures around circular aquaculture; where in both cases new opportunities are emerging around resource recovery, efficient management, and business symbiosis. AZA4ICE developed a dedicated guide with circular aquaculture business practices and opportunities, that serves as a strategic roadmap for stakeholders and provides the blueprint for this transition. For example, in Greece, these areas have encouraged the integration of tourism activities with aquaculture operations. Also, in Sardinia and other pilot areas, local farmers have expressed interest in transitioning from monoculture to Integrated Multi-Trophic Aquaculture (IMTA), prompted by the successful results of the project's pilot implementation.

Through cooperative models, **Carbon Farming MED** enables smallholders to access carbon certification schemes, facilitating participation in emerging green markets. These farmers receive training on carbon credits, which helps diversify revenue streams while reducing structural barriers related to scale and administrative capacity.

REVIVE focuses on rural innovation community cooperatives and co-designed local clusters. Capacity-building schemes includes digital skills labs and digital market support, and integration with digital innovation hubs. The objective is to strengthen local SMEs, improve competitiveness, and counteract rural economic decline. The employment dimension is indirect but significant: by enhancing the viability of rural enterprises and fostering diversification in agrotourism, the project contributes to job retention and potentially new micro-enterprise opportunities. Its strength lies in ecosystem-level support rather than individual vocational training.

Capacity-building is a core enabling condition across the thematic projects. While some projects embed training directly linked to employability and inclusion, other projects prioritise sectoral competitiveness, technological adoption, or organisational strengthening.

Deeper integration with regional skills systems, quantified employment indicators, and longer-term reskilling frameworks would strengthen the employment dimension of the circular and green transition across Mediterranean territories.

Conclusion

The overall analysis from a Just Transition perspective shows that, although a just transition is often not explicitly mentioned or embedded in the project design, thematic projects are contributing to it in different ways. Testimonies from these projects demonstrate that, in some cases, when the social dimension was not sufficiently taken into account, issues related to social cohesion emerged.

To further strengthen programme impact and enhance cohesion policy, future programming should formalize intersectionality criteria, integrate measurable indicators, and strengthen alignment with Cohesion Policy. Doing so would shift from project-based inclusiveness toward structurally embedded just transition governance.

Additionally, advancing an inclusive Just Transition should go hand in hand with the green transition. Findings indicate the need for stronger alignment between EU agendas, policy instruments, and funding mechanisms, alongside a broader Just Transition Mechanism that more systematically integrates social dimensions.

KEY POLICY INSIGHTS: ADVANCING AN INCLUSIVE JUST TRANSITION

In light of the evidence and insights generated, a number of strategic enabling conditions can support the integration of a Just Transition dimension within the green transition. The following key policy insights outline pathways to ensure that environmental transformation is accompanied by inclusive, balanced, and territorially responsive outcomes.

Governance Inclusiveness and Multi-Helix Participation

1. Embed Structured Multi-Level and Multi-Helix Governance Mechanisms

Delivering a Just Transition to a circular economy requires strong engagement among quadruple- and quintuple-helix actors—public authorities, academia, industry, civil society, environmental stakeholders, and citizens—across governance levels.

Local and regional authorities are pivotal, as they translate EU regulatory frameworks into place-based solutions. Structured bottom-up approaches based on trust-building, transparent communication, and continuous dialogue improve policy legitimacy, increase uptake, and reduce implementation risks. Inclusive governance enables early identification of social concerns, sectoral trade-offs, and territorial vulnerabilities, leading to more adaptive and socially responsive circular policies. Inclusive governance requires the implementation of strategies to reduce access barriers.

Embedding such mechanisms within cohesion policy frameworks strengthens territorial cohesion by ensuring that transition pathways reflect local capacities, economic structures, and social realities.

2. Align EU Agendas Across Governance Levels

A coherent Just Transition to circular economy requires stronger alignment between environmental, social, and territorial policy frameworks. This includes reinforcing interlinkages among the Circular Economy Action Plan, Cohesion Policy, the Just Transition Mechanism, the EU Gender Equality Strategy, the Anti-Poverty Strategy, and the Digital Agenda.

Policy coherence can be strengthened through shared targets, harmonised indicators, coordinated funding streams, and cross-sector governance platforms. Aligning agendas ensures that circular economy investments simultaneously advance social inclusion and territorial convergence, preventing fragmented or uneven implementation across Member States and regions.

3. Leverage the EU Budget (2028–2034) as a Catalytic Instrument

The upcoming EU Multiannual Financial Framework (2028–2034) should operationalise a Just Transition to circular economy lens across funding instruments. Applying a "just transition investment filter" would help ensure that environmental investments generate social value and reach SMEs, local authorities, rural areas, islands, and coastal communities.

Greater coherence between Cohesion Policy, the Just Transition Fund, and other EU funding mechanisms is essential to avoid duplication and maximise territorial impact. Distributional impacts of major EU spending programmes should be systematically assessed, and regional differentiation should reflect varying baseline capacities and infrastructure gaps.

Embedding the Just Transition to circular economy framework within the European Semester would further strengthen coordination, influence Country-Specific Recommendations, and support policy coherence across Member States.

4. Institutionalise Local Co-Design and Shared Responsibility

Participatory processes should move beyond consultation toward institutionalised co-design at local and regional levels. Assigning responsibilities to local stakeholders must be accompanied by adequate resources, competences, and decision-making authority.

Without sufficient support, smaller actors—particularly municipalities, SMEs, and community organisations—may face "governance traps," in which responsibilities are decentralised without the corresponding capacity. Multi-scalar governance ecosystems, including networks of local and regional authorities, can enhance both collective and individual agency, reducing disengagement and resistance.

Strengthening local ownership is essential to anchor circular economy measures into territorial development strategies and to reinforce cohesion objectives.

5. Strengthen Accountability and Compliance Mechanisms

Collective action challenges, including opportunism and free-riding, can undermine transition efforts. Governance systems should therefore combine formal mechanisms—such as monitoring, reporting, evaluation, and conditional funding—with horizontal accountability tools, including peer review, transparency platforms and stakeholder scrutiny.

Reducing the "commitment–action gap" requires embedding monitoring and evaluation frameworks within policy design and ensuring that social and territorial impacts are systematically tracked. Strong accountability mechanisms enhance credibility, improve policy learning, and reinforce trust among stakeholders.

Social Cohesion and Intersectionality

1. Embed Social Safeguards and Intersectional Criteria from the Design Stage

Circular economy measures must include explicit social safeguards to prevent the reinforcement of existing inequalities or the generation of unintended trade-offs across sectors, territories, and social groups. A Just Transition to circular economy does not occur automatically as a by-product of environmental ambition; it must be deliberately embedded in policy design and regulatory frameworks from the outset.

Planning and implementation frameworks should integrate intersectional parameters—including gender, income level, age, migration status, disability, education, occupational structure, and territorial vulnerability—to identify differentiated impacts and ensure equitable access to opportunities.

This requires:

- The integration of social impact indicators alongside environmental and economic metrics.
- The systematic tracking of affordability, employment quality, access to services and distributional impacts.
- Alignment between EU Cohesion Policy instruments and the Just Transition Framework to support preventive social protection measures compatible with environmental objectives.

2. Conduct Systematic Intersectional Impact Assessments

Environmental and economic reforms affect social groups differently. Intersectional analysis should therefore be institutionalised within circular economy policymaking.

Ex-ante and ex-post assessments should evaluate:

- Labour market effects across sectors and qualification levels.
- Affordability impacts on households.
- Access to finance and innovation ecosystems for SMEs.
- Gendered and migration-related dimensions of economic restructuring.
- Urban–rural and core–periphery disparities.

Without this analysis, circular economy policies risk excluding vulnerable groups from emerging opportunities or concentrating benefits in already advantaged territories. Early identification of intersectional risks enables targeted mitigation measures, inclusive support schemes, and more equitable distribution of economic gains.

3. Recognise and Mobilise Community Knowledge and Agency

Diverse communities possess distinct knowledge, skills, and adaptive capacities that are essential to the success of the circular transition. Recognising these differentiated roles strengthens both policy effectiveness and social acceptance.

Groups defined by occupation, territory, gender, migration background, age, or socio-economic position experience the transition differently. Meaningful inclusion of these perspectives improves co-design processes, enhances legitimacy, and ensures that circular solutions are rooted in lived realities.

Such recognition also reinforces social cohesion by ensuring that benefits are visible, shared, and locally anchored.

4. Institutionalise Risk Assessment and Social Forecasting Mechanisms

Circular economy legislation and investment programmes should include systematic risk assessment and ex-ante forecasting tools to anticipate distributional, labour-market, and affordability effects.

Scenario modelling and social impact projections can:

- Identify potential job displacement or sectoral disruption;
- Assess impacts on vulnerable households;
- Anticipate regional asymmetries;
- Align environmental objectives with social cohesion and economic resilience.

Embedding these mechanisms within EU funding conditionalities and cohesion policy programming would reduce the commitment–action gap and improve long-term policy coherence.

5. Strengthen Workers' Participation and Social Dialogue

A Just Transition to circular economy requires the active participation of workers and their representative organisations in shaping transition pathways.

Beyond reskilling measures, structured social dialogue mechanisms should:

- Involve trade unions and worker representatives in sectoral transition planning;
- Anticipate restructuring impacts in carbon-intensive and resource-intensive industries;
- Promote decent work standards within emerging circular sectors;
- Prevent precarisation in new green value chains.

Worker participation enhances legitimacy, reduces resistance to structural change, and supports fair redistribution of risks and opportunities.

6. Integrate Global Justice and External Value-Chain Responsibilities

The circular transition must also address its global dimension. Resource extraction, waste trade, secondary raw material sourcing, and supply-chain restructuring can generate environmental and social impacts beyond EU borders.

Circular economy policies should:

- Promote fair and transparent global value chains.
- Avoid shifting environmental burdens to third countries.
- Support responsible sourcing and due diligence mechanisms.
- Align circularity objectives with human rights and labour standards internationally.

A territorially just transition within the EU should not externalise social or environmental costs elsewhere. Integrating global justice considerations enhances the credibility and sustainability of the European circular model.

Territorial cohesion

1. Adopt Place-Based Circular Economy Strategies

Circular economy frameworks should be embedded in place-based development strategies, aligned with Cohesion Policy principles. This requires:

- Regional circular economy roadmaps reflecting local economic structures (e.g., industrial clusters, agri-food systems, coastal economies, tourism-dependent areas).
- Integration of CE priorities into Smart Specialisation Strategies (S3).
- Alignment between regional development plans and Just Transition Plans.

Territorial differentiation ensures that CE implementation builds on existing productive capacities rather than imposing uniform models that may not fit local realities.

2. Address Structural and Institutional Capacity Gaps

Territories with weaker institutional ecosystems often struggle to access public and private funding or implement regulatory reforms. The paradigm shift required by the transition works if disparities are comprehensively tackled in:

- Administrative capacity
- Access to innovation ecosystems
- Financial attraction and absorption capacity
- Digital and physical infrastructure

Targeted technical assistance, simplified access to funding streams, and capacity-building for local authorities are therefore essential. Cohesion policy instruments, including the ERDF and the Just Transition Fund, should be fit for purpose and explicitly prioritise capacity reinforcement in less-developed regions to prevent circular innovation from concentrating in already competitive territories.

3. Prevent Spatial Concentration of Circular Value Creation

Without corrective mechanisms, circular economy value chains risk reinforcing core–periphery dynamics:

- High-value innovation activities cluster in advanced regions.
- Resource extraction, waste processing, or low-value segments remain in peripheral areas.

Policy should therefore:

- Incentivise distributed circular industrial ecosystems.
- Promote regional secondary raw material markets.
- Support local repair, reuse, remanufacturing, and bioeconomy networks.
- Encourage regional procurement mechanisms that retain value locally.

This strengthens regional economic resilience and reduces dependency on external markets. Territorial cohesion can be leveraged to transform the circular economy from a sectoral environmental policy into a structural regional development strategy.

Capacity-Building, Reskilling and Job Creation

1. Systematise Inclusive Multi-Level Participation and Co-Creation Processes

Governance systems should move beyond consultation toward institutionalised co-design mechanisms that embed the voices of workers, local communities, informal actors, and civil society in decision-making at all stages of policy formulation and programme implementation. Effective participation needs:

- Structured platforms for continuous engagement, not one-off meetings.
- Inclusive procedures that eliminate barriers to participation for marginalised groups.
- Transparent feedback loops that demonstrate how stakeholder input influences decisions.

This aligns with EU calls for participatory democracy in climate and transition governance where civil society and local communities are meaningfully involved in shaping measures that affect their livelihoods. Such practices increase policy legitimacy, build trust, and reduce implementation risks.

2. Invest in Local Capacities for Just, Place-Based Implementation

The capacity of local and regional actors, including administrations, business support organisations, cooperatives, and community networks, is critical to translating EU-level ambitions into socially grounded action. Capacity-building measures should include:

- Strengthening local administrations' ability to design, manage and monitor CE and Just Transition interventions.
- Training for practitioners on intersectional analysis, community facilitation, and social impact assessment
- Technical assistance hubs that support less-resourced territories in accessing funding and innovation ecosystems.

This focus on territorial capacity not only reduces uneven regional outcomes but also enhances cohesion by enabling local actors to shape transition pathways adapted to their economic, social, and environmental contexts.

3. Anticipate and Build Social and Labour-Market Capacities

A socially inclusive transition requires equipping individuals and communities for the structural shifts ahead. Policies should:

- Support lifelong learning, reskilling and upskilling tailored to emerging circular sectors.
- Guarantee accessible education and training opportunities outside traditional labour markets.
- Empower workers' organisations and social partners through early information, consultation, and collective bargaining frameworks to co-manage industrial changes, as highlighted by EU legislative discussions on a Just Transition directive for the world of work.

Inclusive capacity building should extend beyond reskilling to encompass institutional strengthening in regions vulnerable to economic restructuring, ensuring workers and communities can actively participate in shaping new economic activities.

4. Scale up and structurally integrate skills strategies within Circular Economy governance

Existing EU instruments such as the European Skills Agenda, the Pact for Skills, the Centres of Vocational Excellence, and the Blueprint Alliances provide important foundations for strengthening Europe's human capital. However, these initiatives remain largely sector-specific, voluntary in nature, and insufficiently embedded within circular economy legislation and industrial transformation strategies.

To ensure that the transition to a circular economy is genuinely just and socially grounded, policy frameworks should:

- Create formal linkages with national and regional skills strategies, aligning circular economy objectives with the European Skills Agenda approach and Cohesion Policy programming.
- Establish a Circular Skills and Innovation Pact, conceived as a structured public-private partnership across the quadruple helix (public authorities, academia, industry, civil society), tasked with developing sectoral circular skills blueprints and coordinating funding instruments such as Erasmus+, Interreg, Horizon Europe and the European Regional Development Fund.
- Introduce soft-law conditionalities and incentive mechanisms encouraging Member States and project promoters to embed skills development, reskilling and innovation components in programme design as a criterion for funding eligibility.
- Prioritise vocational and technical education and training (VET) for emerging circular industries, structured reskilling pathways for workers in traditional linear sectors, and targeted capacity-building for local and regional administrations responsible for implementation.

A just circular transition requires a renewed understanding of "skills" that goes beyond technical competencies. It demands transformative, transversal, and civic capabilities, including systems thinking, social dialogue, participatory governance, digital literacy, ecological awareness, and community facilitation. Skills policies must therefore look deeper than labour market matching: they must anticipate structural change, empower workers and communities, and build collective capacity to shape transition pathways rather than merely adapt to them.

CONCLUSION

The analysis of the Interreg Euro-MED ISE Mission thematic projects demonstrates that many core elements of a Just Transition are already being implemented in practice, even where this framing is not always made explicit. Across rural regeneration (REVIVE), circular economy governance and tools (CircleMED, REPper), textile ecosystem transformation (VERDEinMED), blue economy (BLUE ECOSYSTEM, AZA4ICE, AquaBioNets), and carbon credits (Carbon Farming MED), the projects operationalise inclusive governance and stakeholder co-design, territorial targeting, and capacity-building as central methodologies rather than peripheral add-ons.

Their contribution to a Just Transition is visible in four interrelated dimensions. First, they strengthen procedural justice by embedding participatory mechanisms such as living labs, hubs or networks, and multi-actor platforms that engage local authorities, SMEs, citizens, and vulnerable groups. Second, they address capability gaps through targeted training, digital upskilling, mentoring services, and decision-support tools that reduce the structural disadvantages faced by rural communities, micro-enterprises, and low-capacity administrations. Third, they recognise affordability and behavioural constraints as barriers to circularity, highlighting the risk that green transitions may become regressive without accompanying economic and social measures. Fourth, they surface and mediate sectoral trade-offs where environmental objectives intersect with employment, territorial identity, and income stability.

At the same time, the analysis highlights opportunities to further strengthen and systematise the integration of a Just Transition perspective. While many relevant elements are already present, they are often embedded implicitly rather than framed as a structured component of project design, monitoring, and evaluation. In particular, there is scope to enhance the systematic assessment of socio-economic impacts, including the distribution of costs and benefits across different social groups, sectors, and territories. Similarly, while affordability considerations are increasingly recognised, their integration into broader policy and financing frameworks could be further explored.

To consolidate their contribution, finding point to the value of **more explicitly embedding Just Transition criteria into future programming cycles to address circular economy and innovation initiatives**. This includes integrating social impact metrics, territorial vulnerability mapping, and strengthened linkages between skills development, innovation, and labour market transitions. Greater alignment between project-level experimentation and EU policy and funding frameworks would also support the scaling and replication of solutions, ensuring that locally tested approaches contribute to broader regulatory and investment strategies. Key to this is the development of a broader EU Just Transition framework that explicitly addresses social equity, intersectionality, and territorial disparities.

In this context, the Interreg Euro-MED ISE Mission provide a practical laboratory for a socially grounded circular transition in the Mediterranean. The Programme architecture and project methodologies already align with some principles of a Just Transition. Further strengthening their explicit integration can support a more coherent approach, where environmental objectives are pursued alongside social inclusion and territorial cohesion, contributing to resilient and balanced development across the region.

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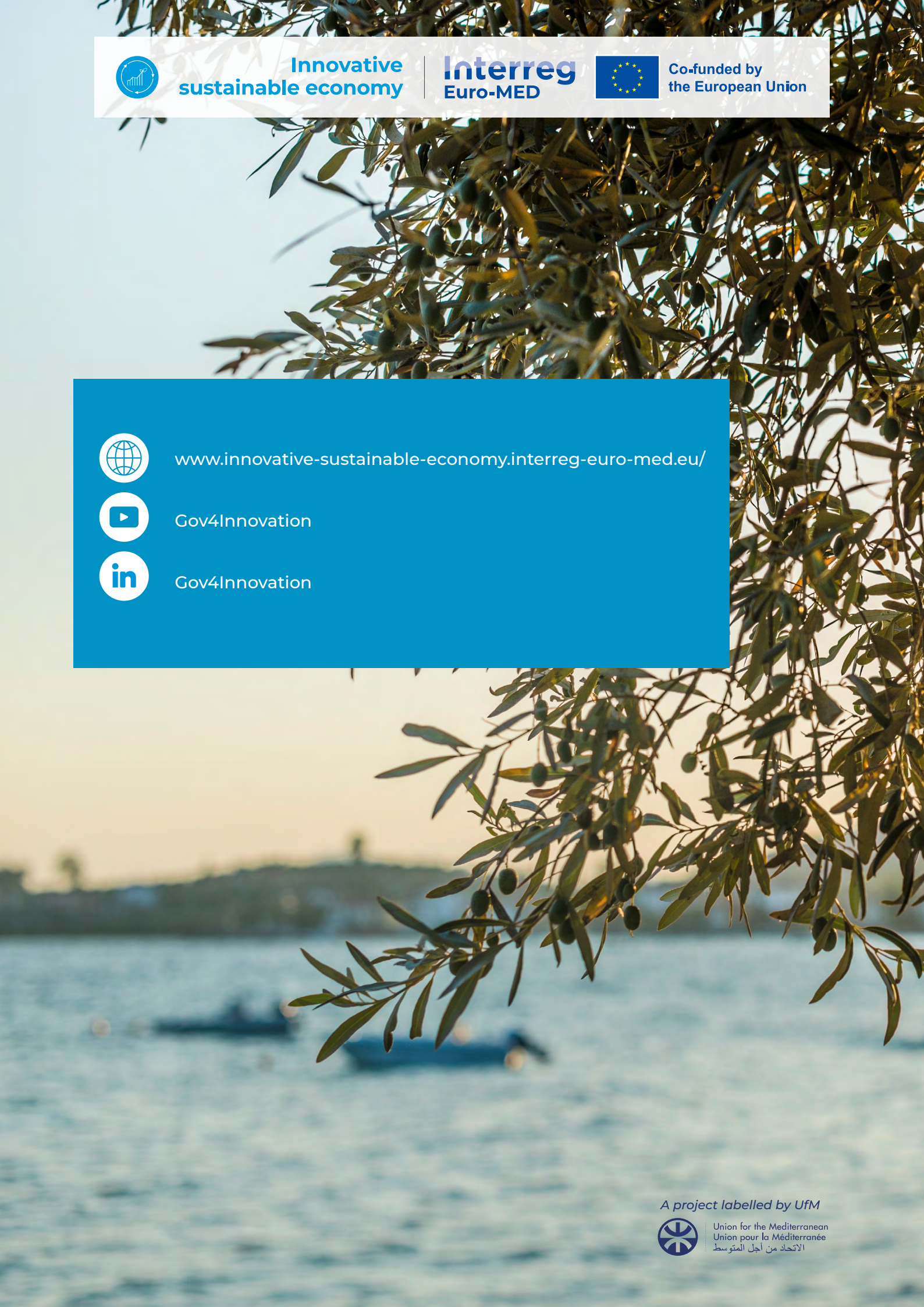

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