Interreg Co-funded by the European Union

IPA ADRION

GREENSMES

"Enhancing SMEs' modernization and green innovation and transition towards successful sustainability by transnational collaborative practices and tools"



Priority 1

Supporting a smarter Adriatic-Ionian region

Specific objective 1.1: Strengthening innovation capacities in the Adriatic-Ionian region

IPA-ADRION00142

Output 1.1

Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation

Interreg Co-funded by the European Union

IPA ADRION

GREENSMES

Project Details	
Programme	(Interreg VI-B) IPA Adriatic Ionian
Programme Priority	Supporting a smarter Adriatic - Ionian region
Programme priority specific objective	SO1.1: Strengthening innovation capacities in the Adriatic - Ionian region
Project title	Enhancing SMEs' modernization and green innovation and transition towards successful sustainability by transnational collaborative practices and tools.
Project acronym	GREENSMES
Reference number	142
Lead beneficiary	TECNOPOLIS Science and Technology Park
Total budget	€ 1.570.283,04
Time frame	01/09/2024 - 28/02/2027
Output Details	
Work package	**1 Increasing transnational knowledge and awareness**
Output Title	**Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation**
Program indicator to which the project output contributes	RCO 83 - Strategies and action plans jointly developed
Responsible Beneficiary	PP2- Business and Cultural Development Centre (KEPA)
Involved Beneficiaries	1. TECNOPOLIS Science & Technology Park- TNO (IT) 2. Business and Cultural Development Centre -KEPA (EL)

	3. RDA Green Karst, Ltd. - RRA Zeleni kras (SI) 4. Zadar County Rural Development Agency - AGRRA (HR) 5. City Development Agency Banja Luka- CIDEA (BA) 6. Fund for European Affairs and Development of the Autonomous Province of Vojvodina - FEP (RS) 7. Albanian Development Fund Shqipëria- ADF (AL) 8. National Centre for Development of Innovation and Entrepreneurial Learning -NCDIEL (MK) 9. Municipality of Herceg Novi- OHN (ME) 10. TEAM-Together Everyone Achieves More Center TEAM-Center (AL)
Type of document	Strategy
Status	Version_01
Date of Delivery:	12-03-2026
Output Description	The GREENSMES Strategy provides an overall assessment of the state of play of the green economy and innovation within the project area, identifying territorial needs, opportunities, and challenges. It establishes a common transnational vision for effectively connecting the research sector with the business community, fostering collaboration to support sustainable growth and innovation among SMEs. The Strategy defines mid- and long-term objectives and priorities, following the SMART approach to ensure clear, measurable, achievable, relevant, and time-bound actions.
Availability	Public
Quantity (if printed)	n/a

Contents

Executive Summary 5
1. Introduction 8
1.1 Project Context and Scope 8
1.2 Methodological Framework 9
2. Analysis of the Current Situation in the Adriatic–Ionian Region 12
2.1 Convergences and Divergences with European Policy 13
2.2 Green Economy Emerging Trends and Sectoral Focus in the Adriatic–Ionian Region 15
2.3 Opportunities 19
2.4 Challenges 20
2.5 Comparative Assessment and Common Challenges and Opportunities in IPA ADRION 21
2.6 Policy and Legal Framework in the Adriatic–Ionian Region 25
3. Vision and Strategic Objectives 29
3.1 Introduction 29
3.2 Strategy Vision 30
3.3 Strategic Logic and Intervention Pathway 31
3.4 Strategic Objectives (SMART Framework) 32
A. Mid-term objectives (project implementation phase – until 2027); 34
B. Long-term Objectives (Durability and Capitalization Phase 2027–2030) 38
3.5 Expected Transformational Impact 48
4. Strategy Implementation and Integration into Policies, Local Strategies and Recommendations 49
4.1 Introduction 49
4.2 Implementation at GREENSMES Transnational Level 50
4.3 Tools and Implementation Mechanisms 51

4.3.1 Letters of Intent and Institutional Commitment 51
4.3.2 The Transnational GREENSMES Strategic Network.....52
4.3.3 Strategic Bridge to the Action Plan and Policy Integration 53
4.4 Monitoring and Evaluation.....54
5. Capitalization, Durability, and Transferability 56
5.1 Capitalization of Results.....56
5.2 Durability of the Strategy 58
5.3 Transferability of the Output 59
6. Conclusions and Recommendations 61
6.1 Summary Conclusions.....61
6.2 Recommendations at Transnational Level 62
ANNEXES 65
Annex I – Project Partners' Letters of Intent (PPs LoIs).....65
Annex II – Stakeholders' Letters of Intent Templates 68

Executive Summary

This Strategy has been jointly developed within the framework of the GREENSMES project (IPA-ADRION00142) engaging the entire project Consortium aiming to support the green transition of small and medium-sized enterprises across the Adriatic–Ionian macro-region through strengthened transnational cooperation between research communities, businesses, public authorities, and intermediary stakeholders. Grounded in the analytical evidence of the D.1.1.2 Joint report on the state of play of green economy and innovation and aligned with the IPA ADRION Programme Specific Objective 1.1 (reference documents: IPA ADRION Territorial Analysis Post-2020 and ADRION Territorial Analysis Post-2020 – Appendix) on strengthening innovation capacities, the document establishes a coherent strategic pathway for accelerating sustainable innovation, circular-economy adoption, and climate-neutral growth within SME ecosystems.

The analysis highlights significant territorial asymmetries in policy maturity, investment capacity, circular-economy performance, and renewable-energy deployment between EU Member States and non-EU IPA countries). Despite these disparities, the region demonstrates strong shared potential derived from its natural capital, emerging innovation ecosystems, sustainable-tourism dynamics, and expanding access to European and international funding instruments. At the same time, systemic constraints persist, particularly limited SME access to finance, weak R&D–business integration, skills shortages related to the twin green-digital transition, and uneven institutional implementation of environmental policies. These findings confirm the need for coordinated macro-regional action capable of transforming policy convergence into measurable green-transition outcomes.

In response, the Strategy articulates a shared vision of a dynamic, collaborative, and innovation-driven Adriatic–Ionian region where research excellence, entrepreneurial capacity, and public governance jointly enable a green, circular, and socially inclusive economy. This vision is operationalized through SMART-oriented strategic objectives structured across mid-term and long-term horizons, focusing on strengthening transnational R&D–SME cooperation, enhancing green and digital skills, sustaining a permanent macro-regional innovation network, and integrating green-innovation priorities into regional and national policy frameworks, particularly Smart Specialization Strategies.

Implementation is structured around a transnational governance architecture that translates strategic priorities into coordinated action while remaining distinct from the operational Action Plan dedicated to establishment and functioning of GREENSMES Network. Core enabling mechanisms include the formalization of stakeholder commitment through Letters of Intent, the institutionalization of the ongoing Transnational GREENSMES Strategic Network as a permanent cooperation platform, and a monitoring framework based on quantitative and qualitative indicators aligned with programme requirements. Special attention is given on capitalization of project knowledge, long-term durability of collaborative structures beyond the project lifecycle, and transferability of methodologies across territories and sectors, including knowledge diffusion from more mature ERDF regions toward emerging IPA economies.

Overall, the Strategy positions GREENSMES as a catalytic policy instrument for accelerating SME green transformation, strengthening macro-regional cohesion, and advancing shared sustainability objectives across the Adriatic–Ionian space.

By combining evidence-based analysis, participatory governance, and long-term institutional embedding, it provides a durable strategic foundation capable of supporting climate-neutral development, innovation-driven competitiveness, and inclusive economic resilience well beyond the project's implementation period.

1. Introduction

1.1 Project Context and Scope

The GREENSMES project, implemented under the Interreg IPA ADRION Programme 2021–2027, addresses the shared macro-regional challenge of accelerating the green transition and innovation capacity of small and medium-sized enterprises (SMEs) across the Adriatic–Ionian region. The project rationale is closely aligned with the findings of the IPA ADRION Territorial Analysis Post-2020, which identifies fragmented innovation ecosystems, uneven SME innovation performance, weak commercialization of research results, and limited transnational cooperation capacity as key structural challenges affecting the Adriatic–Ionian macro-region under Policy Objective 1 'A Smarter Europe. Recognizing SMEs as the backbone of regional economic systems yet among the most vulnerable actors in the transition toward climate neutrality, the project promotes coordinated transnational action grounded in the Quadruple Helix model, fostering structured collaboration among research institutions, businesses, public authorities, and civil society.'

Within this framework, GREENSMES develops an integrated portfolio of strategic and operational outputs aimed at strengthening sustainable innovation ecosystems and enhancing SME competitiveness in the green economy. Core components include the formulation of a transnational strategy for R&D–SME cooperation, the establishment of a permanent Transnational GREENSMES Strategic Network, the preparation of an Action Plan ensuring operational continuity and replication potential, and the implementation of pilot actions supporting SME capacity building, green-skills development, and access to

innovation finance. Through knowledge exchange, policy alignment, and targeted capacity-building interventions, the project contributes directly to the objectives of the European Green Deal, the Circular Economy Action Plan, and the Sustainable Development Goals.

Within this project architecture, the present Strategy constitutes the central strategic reference framework guiding the long-term sustainability, policy integration, and transnational capitalization of GREENSMES results. By translating analytical evidence and stakeholder co-creation outcomes into coordinated strategic priorities, the document ensures that project achievements extend beyond the implementation period and support the durable transformation of SME ecosystems across the Adriatic–Ionian macro-region.

1.2 Methodological Framework

The Strategy was developed through a multi-layered and participatory methodological framework, combining systematic data analysis, comparative policy assessment, and structured stakeholder engagement at transnational level. The associated partners (i.e. Chamber of Economy of Montenegro (MN); Municipality Postojna (SL); Region of Central Macedonia (GR); Science and Technology Park Novi Sad (SR)) have been invited to local activities and been part of internal consultation. This approach was deliberately designed to ensure that the document is both analytically robust and operationally relevant across the diverse institutional, economic, and territorial contexts of the IPA ADRION area.

The methodology followed a structured five-stage process:

1) Analysis of the Current Situation

This stage involved the collection, processing, and synthesis of data regarding green innovation performance and SME engagement across IPA ADRION countries. The analysis drew primarily on national strategies, statistical indicators, and the project's D.1.1.2_Joint report on the state of play of green economy and innovation

at project level. Emphasis was placed on identifying territorial disparities, structural constraints, and innovation gaps affecting SMEs in the green transition process.

2) Participation of Partners and Stakeholders (Quadruple Helix Engagement)

A central pillar of the methodology was the activation of the Quadruple Helix model through local and transnational co-creation processes. This included the organization of Transnational Co-creation Workshops and Quadruple Helix Work Cafés, enabling structured dialogue among research institutions, SMEs, Business Support Organizations, public authorities, and civil society actors. These participatory mechanisms ensured the integration of multi-level perspectives and strengthened the macro-regional ownership of the Strategy. Project communication activities further supported stakeholder sensitization, consultation, and engagement.

It should be underlined that by the end of the project more participatory activities will be taking place. Therefore, the current version of the "GREENSMES Strategy" might be updated in terms of indicators and/or references.

3) Comparative Policy Analysis

European and international policy frameworks—such as the European Green Deal, the Circular Economy Action Plan, the "Fit for 55" package, and the Sustainable Development Goals (SDGs)—were systematically compared with national and regional strategies. This comparative assessment allowed the identification of policy convergences and divergences, as well as priority domains where transnational cooperation can generate added value.

4) Formulation of a Common Vision and Strategic Objectives

Building upon analytical findings and stakeholder inputs, a shared strategic vision for a dynamic and collaborative ADRION region was articulated. Strategic objectives were formulated according to the SMART methodology (Specific, Measurable, Achievable, Relevant, and Time-bound), ensuring coherence between identified challenges, innovation gaps, and proposed interventions.

5) Definition of Implementation and Monitoring Mechanisms

The final stage focused on translating strategic priorities into governance structures and monitoring mechanisms adapted to the IPA ADRION context. This included the identification of implementation tools, the institutionalization of collaborative platforms, and the definition of Key Performance Indicators (KPIs) aligned with IPA ADRION Programme result indicators. Emphasis was placed on ensuring measurability, adaptability, and long-term applicability beyond the project lifecycle.

This methodological architecture provides the Strategy with two fundamental attributes: strong analytical grounding through systematic evidence-based

assessment, and practical applicability ensured through transnational Quadruple Helix participation. As a result, the Strategy operates simultaneously as a macro-regional policy reference framework and as a structured strategic foundation guiding R&D–SME collaboration towards green innovation.

2. Analysis of the Current Situation in the Adriatic–Ionian Region

This chapter builds upon the findings of the D.1.1.2_Joint report on the state of play of green economy and innovation and provides a structured macro-regional assessment of green transition dynamics across the IPA ADRION area. The analysis synthesizes territorial evidence from the nine participating regions in order to identify patterns of policy alignment, emerging sectoral trends, structural opportunities, and systemic challenges shaping the strategic environment of the GREENSMES initiative. By establishing a coherent analytical baseline, the chapter supports the formulation of coordinated transnational responses aimed at strengthening SME green innovation capacity and accelerating sustainable development throughout the Adriatic–Ionian macro-region.

In addition to the analytical evidence derived from the D.1.1.2_Joint report on the state of play of green economy and innovation, the findings presented in this chapter are further validated through stakeholder consultation processes conducted within local co-creation workshops, Quadruple Helix Work Cafés, and the Transnational Co-creation Workshop of the GREENSMES project.

2.1 Convergences and Divergences with European Policy

The macro-regional assessment reveals both substantial convergence and persistent divergence in relation to European environmental, climate, and innovation policy frameworks.

EU Member States, Italy, Slovenia, Greece, and Croatia, demonstrate comparatively strong institutional alignment with the European Green Deal, the Circular Economy Action Plan, and the "Fit for 55" legislative package. Their governance environments are reinforced by structured financial instruments, including Recovery and Resilience Plans and RIS3 Smart Specialization Strategies, alongside more mature regulatory and administrative capacities.

In contrast, non-EU (IPA countries), Albania, North Macedonia, Serbia, Montenegro, and Bosnia and Herzegovina, remain in a transitional harmonization phase. While national climate strategies, energy plans, and circular-economy frameworks have been formally adopted, implementation capacity continues to be constrained by institutional fragmentation, limited access to finance, governance inefficiencies, and structural economic vulnerabilities.

Significant disparities are also observed in circular-economy performance. Recycling rates exceed 59% in Slovenia, whereas levels remain as low as 6% in Bosnia and Herzegovina. Greece continues to record landfill rates approaching 90%, highlighting persistent weaknesses in waste-management infrastructure and policy execution.

Energy systems exhibit similarly strong differentiation. Regions such as Puglia (Italy) demonstrate advanced renewable-energy capacity exceeding 3 GW in wind and solar power, whereas Serbia and North Macedonia remain heavily dependent

on coal-based electricity generation. Montenegro and Albania rely predominantly on hydropower, creating climate-related vulnerability linked to rainfall variability.

SME engagement in green innovation reflects these structural asymmetries. Slovenia reports near-universal business participation in emission-reduction measures, while participation across several non- EU (IPA countries) remains below 20%. Greece presents an intermediate profile, with approximately 40% of SMEs in Central Macedonia adopting at least one green innovation practice.

Overall, the findings confirm that formal policy convergence does not automatically translate into effective green transformation. Implementation capacity, financial accessibility, R&D–business connectivity, and institutional coordination emerge as decisive enabling factors across the macro-region.

The analysis further indicates that green transition pathways across the ADRION macro-region are closely interlinked with regional Smart Specialization Strategies (RIS3), which prioritize the following sectors 1. energy and sustainable environment; 2. ICT; 3. manufacturing; 4. smart city and smart mobility.

This alignment creates favorable conditions for transnational knowledge transfer and coordinated innovation investment, reinforcing the strategic relevance of macro-regional cooperation mechanisms promoted by the GREENSMES initiative.

2.2 Green Economy Emerging Trends and Sectoral Focus in the Adriatic–Ionian Region

Across the IPA ADRION macro-region, the transition toward a green economy is characterized by asymmetric yet progressively accelerating sectoral transformation.

Key emerging trends include the rapid expansion of renewable-energy deployment, particularly solar and wind in EU Member States and hydropower modernization in non-EU (IPA countries); the gradual diffusion of circular-economy practices, with leading performance observed in Slovenia and Italy and early-stage development elsewhere; the increasing integration of green innovation within SME ecosystems, especially across manufacturing, agri-food, tourism, and energy-service sectors; and the strengthening of Quadruple Helix collaboration structures, enabling coordinated interaction among academia, industry, government, and civil society.

In sectoral terms, energy transition, waste management, sustainable tourism, and resource-efficient manufacturing emerge as the principal pillars of regional green transformation. Nevertheless, persistent commercialization gaps remain evident, particularly in territories where research capacity is not yet effectively translated into market-ready solutions.

A cross-cutting finding emerging from the macro-regional assessment concerns the critical role of digital transformation as an enabling condition for green innovation. The effective implementation of circular-economy models, energy-efficiency monitoring, and resource-management optimization increasingly depends on the availability of digital tools, data infrastructures, and smart

production systems. Consequently, the green transition of SMEs within the ADRION space cannot be addressed in isolation from the broader twin transition paradigm, which integrates environmental sustainability with digital technological advancement.

Territorial evidence from participating regions

To substantiate the macro-regional trends identified above, territorial evidence from the participating regions is summarized below.

Italy – Puglia Region

Puglia occupies a central position in the Adriatic–Ionian area and benefits from favorable climatic conditions for renewable-energy development, a strong agricultural tradition, and a diversified industrial base dominated by SMEs (99.6% of enterprises). The region records more than 3.1 GW of installed wind capacity and 3.3 GW of solar capacity, alongside recycling rates approaching 59%. Between 2019 and 2023, over 36,000 enterprises invested in green technologies, supported by the PNRR and regional S3 strategy. Key challenges relate to grid modernization, energy storage, and stronger R&D–SME integration.

Greece – Region of Central Macedonia

Central Macedonia represents one of Greece's most dynamic regional economies, with SMEs accounting for 99.5% of businesses. Policy support derives from the NECP, National Climate Law, Circular Economy Action Plan, and RIS3 strategy. Despite strong photovoltaic penetration, landfill rates remain around 90% and circularity only 3.1%. Approximately 40% of SMEs have adopted green innovation,

yet micro-enterprises remain underrepresented due to financial and technical barriers. The principal challenge is bridging the SME–R&D gap through the regional innovation ecosystem.

Slovenia

Slovenia stands among the region's green-transition leaders, supported by strong biodiversity, advanced policy frameworks, and an integrated innovation system. Recycling rates reach 59%, more than 46,000 photovoltaic installations are operational, and 97% of enterprises have adopted emission-reduction measures. However, SMEs still lag behind large firms in green investment participation, highlighting financing, skills, and commercialization challenges.

Croatia

Croatia has embedded green transition priorities within its National Recovery and Resilience Plan, NECP, and Circular Economy Strategy. Renewable sources generate around 40% of electricity, while recycling rates remain near 25%. SME engagement in eco-innovation is still limited, though opportunities arise through sustainable tourism development.

Bosnia and Herzegovina

Bosnia and Herzegovina remains at an early stage of green transition, characterized by coal dependence (≈60%), recycling rates of 6%, and limited SME participation in green innovation. Although an environmental strategy exists, implementation capacity remains weak. Strengthening institutional frameworks and attracting green investment constitute core priorities.

Serbia

Serbia is progressively aligning with EU green policy through its Climate Law, NECP, and Circular Economy Plan. Nevertheless, electricity generation remains 70% coal-based, renewable penetration is limited, and SME participation in green investment is below 20%. Emerging clusters in bioenergy and energy efficiency provide future potential.

Albania

Albania relies heavily on hydropower (≈67%), creating climate vulnerability. Recycling remains below 10%, and SME access to finance and expertise is limited, despite support from international organizations. Strengthening technical and financial SME capacity is critical.

North Macedonia

North Macedonia faces significant decarbonization challenges due to lignite dependence (≈60%), low renewable penetration, and recycling below 5%. Limited SME participation stems from financial, technical, and institutional constraints, although emerging innovation ecosystems offer potential.

Montenegro

Montenegro generates ≈63% of electricity from renewables, yet remains partly dependent on coal through the Pljevlja plant. Recycling rates remain low (10–12%), and SMEs face financial and skills barriers. Opportunities exist in green tourism and energy-efficiency investments.

2.3 Opportunities

Despite persistent structural asymmetries, the Adriatic–Ionian region demonstrates substantial and multifaceted opportunities for advancing a coordinated green transformation. A key enabling factor lies in the strong potential for cross-border learning and policy transfer, supported by the coexistence of territories at different stages of green transition maturity. This diversity creates favorable conditions for experimentation, mutual capacity building, and the diffusion of effective governance and innovation models across the macro-region.

In parallel, the region benefits from abundant natural capital, including rich biodiversity, extensive water resources, and significant solar and wind potential, all of which provide a solid foundation for the large-scale deployment of renewable energy, nature-based solutions, and climate-resilient development pathways. The strategic role of sustainable tourism further amplifies these opportunities, as the sector can function as a catalyst for circular resource management, green infrastructure investment, and environmentally responsible value chains capable of influencing both production systems and consumer behavior.

Moreover, the availability of European and Iinternational funding instruments, such as the European Green Deal mechanisms, Horizon Europe, IPA funds, and financing from institutions including the EBRD and UNDP, creates a favorable investment landscape for scaling green innovation and supporting SME transition. When effectively coordinated, these resources can reduce financial risk, stimulate technological adoption, and strengthen regional competitiveness.

Equally important is the progressive consolidation of Quadruple Helix innovation ecosystems, where universities, research centers, public authorities, businesses, and civil society interact within collaborative governance frameworks. These ecosystems enhance knowledge circulation, accelerate technology transfer, and foster the co-creation of green solutions tailored to territorial needs. Collectively, these factors position the Adriatic–Ionian region not merely as a recipient of green transition policies, but as a potential laboratory for integrated, transnational sustainability innovation.

2.4 Challenges

Notwithstanding these opportunities, the macro-regional landscape continues to be shaped by systemic and interrelated structural barriers that constrain the pace and inclusiveness of green transition. Among the most critical is the limited access of SMEs to adequate financing, particularly in relation to risk-sharing instruments, blended finance schemes, venture capital, and impact-investment mechanisms tailored to early-stage green innovation. This financial gap restricts both technological upgrading and the scaling of sustainable business models.

At the same time, weak linkages between research institutions and the business sector reduce the effective commercialization of scientific knowledge and innovation outputs. In several territories, collaboration remains project-based and fragmented rather than embedded within stable innovation ecosystems, thereby limiting long-term transformative impact.

Human-capital constraints further compound these challenges. Skills shortages in green and digital technologies, insufficient vocational training, and uneven access to lifelong learning opportunities hinder the capacity of SMEs and public administrations to adopt and implement sustainable solutions at scale. These limitations are particularly pronounced in less developed regions of the macro-area.

Infrastructure deficits also remain significant. Underdeveloped circular-economy systems, including recycling, reuse, and resource-recovery mechanisms, continue to impede material efficiency and environmental performance. In parallel, structural dependence on carbon-intensive or single-source energy systems, notably coal or hydropower, creates environmental vulnerability, economic risk, and exposure to climate variability.

Addressing these interconnected constraints requires coordinated transnational policy action combining targeted investment, governance reform, institutional capacity building, and the strengthening of regional innovation ecosystems. Without such integrated intervention, the transition risks remaining fragmented and uneven across the Adriatic - Ionian space.

2.5 Comparative Assessment and Common Challenges and Opportunities in IPA ADRION

The comparative assessment of green transition dynamics across the ADRION macro-region is grounded not only in the analytical findings of the GREENSMES project, but also in the broader strategic framework established by the official IPA

ADRION Territorial Analysis. The following Programme documents were used as the macro-regional analytical and strategic baseline upon which the GREENSMES intervention logic has been developed:

- ADRION Territorial Analysis Post-2020 – Final Approved Version

https://www.interreg-ipa-adrion.eu/wp-content/uploads/2023/08/ADRION-territorial-analysis-post-2020-final-approved.pdf

ADRION Territorial Analysis Post-2020 – Appendix – Final Approved Version

https://www.interreg-ipa-adrion.eu/wp-content/uploads/2023/08/ADRION-territorial-analysis-post-2020-Appendix-final-approved.pdf

The analysis highlights not only structural disparities between participating territories, but also the gradual emergence of shared governance patterns capable of supporting coordinated sustainability pathways. While national contexts differ in terms of institutional maturity, investment capacity, and technological readiness, the overall regional trajectory indicates a progressive, though uneven, convergence toward European climate and circular-economy objectives.

Beyond territorial differentiation, the analysis reveals the growing importance of intermediary governance mechanisms that facilitate interaction among innovation ecosystems, public authorities, and the business sector. Within this transformation landscape, Business Support Organizations (BSOs), including chambers of commerce, innovation clusters, technology parks, and advisory intermediaries—emerge as pivotal actors bridging the gap between SMEs, research institutions, and public administrations across the ADRION space.

Rather than functioning solely as facilitators, BSOs increasingly operate as translators of SME needs into innovation pathways, funding opportunities, and collaborative networks, enabling access to green finance, specialized expertise, and knowledge-transfer mechanisms. Strengthening their institutional and operational capacity therefore constitutes a strategic prerequisite for accelerating SME participation in green transition processes and ensuring the effective territorial implementation of macro-regional sustainability objectives.

From a structural perspective, comparative evidence confirms a dual regional reality. EU Member States generally demonstrate more advanced regulatory alignment, stronger absorption of European funding, and higher levels of renewable-energy deployment, circular-economy performance, and SME engagement in eco-innovation. In contrast, non-EU (IPA countries) are progressing through gradual institutional harmonization and policy adoption, yet continue to face constraints related to administrative fragmentation, limited investment capacity, infrastructure deficits, and weaker research–business integration.

Despite these asymmetries, the macro-regional landscape is characterized by a set of shared systemic challenges. These include restricted SME access to tailored green financing instruments, insufficient commercialization of research outputs, shortages in green and digital skills, underdeveloped circular-economy infrastructure, and continued dependence on carbon-intensive or climate-vulnerable energy systems. Such constraints slow the pace of transition and risk widening developmental gaps within the region if not addressed through coordinated intervention.

At the same time, the ADRION macro-region presents significant collective opportunities capable of supporting accelerated green transformation. Rich natural capital, expanding renewable-energy potential, and the strategic role of sustainable tourism provide favorable conditions for environmentally responsible growth. Increasing engagement in transnational cooperation frameworks, alongside access to European and international funding instruments, strengthens the capacity for knowledge exchange, policy learning, and innovation diffusion across borders.

Furthermore, the consolidation of Quadruple Helix collaboration models linking academia, industry, government, and civil society create a governance environment conducive to integrated and inclusive sustainability pathways. Within this context, macro-regional cooperation emerges not merely as a coordination mechanism, but as a catalyst for systemic transformation capable of aligning diverse territorial trajectories toward common green-transition outcomes.

Overall, the comparative synthesis demonstrates that the green transition within the IPA ADRION area is uneven yet progressively convergent, shaped by both structural disparities and shared strategic potential. This duality underscores the necessity of a coordinated macro-regional strategy capable of reducing implementation gaps while leveraging complementary regional strengths.

The challenges and opportunities identified through this comparative analysis therefore constitute the evidence base for the shared strategic vision and SMART-oriented objectives developed in the following chapter, ensuring a coherent progression from analytical assessment to forward-looking strategic planning across the Adriatic–Ionian macro-region.

Stakeholder co-creation processes conducted through the GREENSMES local workshops, Quadruple Helix Work Cafés, and the Transnational Co-creation Workshop further refine and operationalize the comparative assessment presented above. Across participating territories, stakeholders consistently highlighted the need for structured digital environments enabling matchmaking between SME-driven challenges and research-based green solutions, alongside mechanisms for the systematic identification and publication of real industry needs.

Participants also emphasized the importance of cross-border knowledge exchange through study visits, innovation sprints, and collaborative learning formats, as well as targeted capacity-building actions supporting access to European funding, green innovation management, and sustainability-oriented business transformation. Emphasis was given to the catalytic role of Business Support Organizations as trusted intermediaries capable of facilitating cooperation, mobilizing financial resources, and strengthening SME participation in transnational innovation ecosystems.

These converging stakeholder insights transform workshop-level brainstorming into evidence-based strategic direction, validating the analytical conclusions of Chapter 2 and providing the operational foundation for the shared vision and SMART-oriented strategic objectives articulated in the following chapter.

2.6 Policy and Legal Framework in the Adriatic–Ionian Region

The green transition of the Adriatic–Ionian macro-region is shaped not only by technological capacity and market dynamics, but also by the coherence, maturity,

and implementation effectiveness of the prevailing policy and legal framework. Regulatory alignment with European environmental and climate objectives constitutes a decisive enabling condition for accelerating green innovation, particularly for small and medium-sized enterprises (SMEs), which depend on stable rules, targeted incentives, and accessible support mechanisms.

At the European level, the architecture for sustainable transformation has been consolidated through the European Green Deal, which establishes climate neutrality by 2050 as a legally binding strategic objective. This overarching framework is operationalized through complementary legislative and financial instruments, including the European Climate Law, the “Fit for 55” package, the Circular Economy Action Plan, and sectoral directives governing waste management, renewable energy, and sustainable finance. Collectively, these instruments define common regulatory standards, measurable environmental targets, and investment conditions that guide national and regional transition pathways across the Union.

Within the IPA ADRION space, the degree of alignment with this European framework varies considerably. EU Member States Italy, Slovenia, Greece, and Croatia have incorporated core legislative requirements into national energy, climate, and circular-economy strategies supported by structured financing tools such as Recovery and Resilience Plans, cohesion policy instruments, and RIS3 Smart Specialization frameworks. This integration provides greater regulatory certainty, clearer investment signals, and stronger institutional coordination in support of green innovation ecosystems.

Conversely, non-EU (IPA countries) Albania, North Macedonia, Serbia, Montenegro, and Bosnia and Herzegovina are progressing through gradual harmonization processes linked to European accession pathways. Although strategic documents and sectoral legislation reflecting EU principles have been formally adopted, implementation effectiveness remains uneven. Structural administrative fragmentation limited financial capacity, insufficient monitoring systems, and delays in the transposition of environmental directives continue to constrain the practical realization of policy commitments. Consequently, legislative convergence does not yet translate into equivalent green-transition outcomes across the macro-region.

Beyond formal alignment, several cross-cutting governance challenges persist. Responsibilities for green transition policies are often dispersed across multiple ministries or agencies, reducing coordination efficiency and slowing decision-making processes. Local and regional authorities—frequently central to waste management, energy planning, and environmental enforcement—do not consistently possess the technical expertise, institutional capacity, or financial resources required for effective implementation. At the same time, monitoring and evaluation mechanisms remain fragmented, limiting the availability of reliable and comparable data necessary for evidence-based policymaking and transnational benchmarking.

From an SME perspective, the existing regulatory environment introduces additional constraints. Many legal and administrative requirements are implicitly designed for larger enterprises, while small and micro-enterprises face disproportionate compliance costs, procedural complexity, and limited access to

advisory and technical support. The absence of simplified procedures, targeted incentives, and SME-oriented implementation tools reduces participation in green innovation and slows the diffusion of sustainable business models across regional economies.

Taken together, these findings indicate that the effectiveness of the policy and legal framework in the Adriatic–Ionian region depends less on the existence of strategic commitments and more on implementation capacity, institutional coordination, financial accessibility, and SME-oriented regulatory adaptation. Strengthening these dimensions therefore emerges as a prerequisite for transforming formal policy convergence into tangible and inclusive green-transition outcomes.

In this context, the analytical evidence developed throughout Chapter 2 provides the structural foundation for the articulation of a shared strategic vision and operational priorities, which are presented in the following chapter.

3. Vision and Strategic Objectives

3.1 Introduction

Building upon the analytical evidence and policy context established in Chapter 2, this chapter defines the forward-looking strategic direction of the GREENSMES initiative within the Adriatic–Ionian macro-region. The articulation of a shared vision and a coherent framework of strategic objectives represent a decisive step in translating territorial analysis into coordinated transnational action capable of accelerating the green transition of small and medium-sized enterprises (SMEs). In this context, the defined strategic objectives are explicitly designed to serve the IPA ADRION Programme Specific Objective 1.1, focusing on 'Strengthening innovation capacities in the Adriatic-Ionian region' by fostering the transnational modernization of SME ecosystems.

The Strategy addresses a multi-level ecosystem of stakeholders whose interaction is essential for enabling sustainable innovation and systemic transformation. These target groups include SMEs and Business Support Organizations as primary beneficiaries and facilitators of green transition; research and academic institutions responsible for knowledge generation and technological development; national, regional, and local public authorities shaping regulatory and investment conditions; financial actors enabling access to green funding instruments; and civil-society organizations contributing to awareness, social participation, and behavioral change.

The engagement of these actors reflects the Quadruple Helix governance model, ensuring that the Strategy promotes not only technological advancement but also

institutional coordination, market transformation, and inclusive societal participation across the ADRION space.

3.2 Strategy Vision

The shared vision emerging from the GREENSMES transnational cooperation process can be summarized as the creation of a dynamic, collaborative, and innovation-driven Adriatic–Ionian region, where research, entrepreneurship, and public governance jointly shape the transition toward a green, circular, and sustainable economy that delivers tangible benefits for society and the environment.

This vision is grounded in four interrelated strategic principles:

- First, sustainability, reflecting a long-term commitment to environmental protection, efficient resource use, climate neutrality, and biodiversity preservation.
- Second, collaboration, expressed through strengthened transnational cooperation among research institutions, SMEs, public authorities, and civil society within a Quadruple Helix framework.
- Third, innovation, emphasizing investment in green technologies, circular business models, and knowledge-based solutions capable of generating economic and social value.
- Fourth, resilience and social inclusion, ensuring that the transition supports economic diversification, quality employment creation, and equitable participation of all regions and social groups.

Through the adoption of this vision, the IPA ADRION macro-region moves beyond passive compliance with European environmental directives and develops an active strategic identity in green innovation and sustainable development. The Strategy therefore functions not only as an adaptation instrument, but also as a pathway for positioning the region as a transnational reference point for cooperative, knowledge-driven green transformation.

3.3 Strategic Logic and Intervention Pathway

The strategic architecture of GREENSMES is grounded in a progressive intervention logic that connects analytical evidence, governance coordination, and measurable transformation outcomes across the Adriatic–Ionian macro-region. Rather than functioning as a collection of isolated actions, the Strategy follows a structured pathway moving from capacity building and cooperation toward systemic policy integration and long-term sustainability.

At the initial stage, emphasis is placed on strengthening transnational collaboration between research ecosystems, SMEs, and intermediary support structures, thereby addressing fragmentation and limited knowledge transfer identified in Chapter 2. This cooperative foundation enables the subsequent scaling of green innovation uptake, skills development, and access to financing mechanisms, forming the operational core of the transition process.

In the longer term, the Strategy aims to consolidate these dynamics into durable institutional and policy frameworks, ensuring that green innovation becomes embedded within regional development models, Smart Specialization priorities,

and macro-regional governance structures. Through this staged progression, GREENSMES seeks not only to generate project-level results but to catalyze structural transformation of SME innovation ecosystems across the ADRION space.

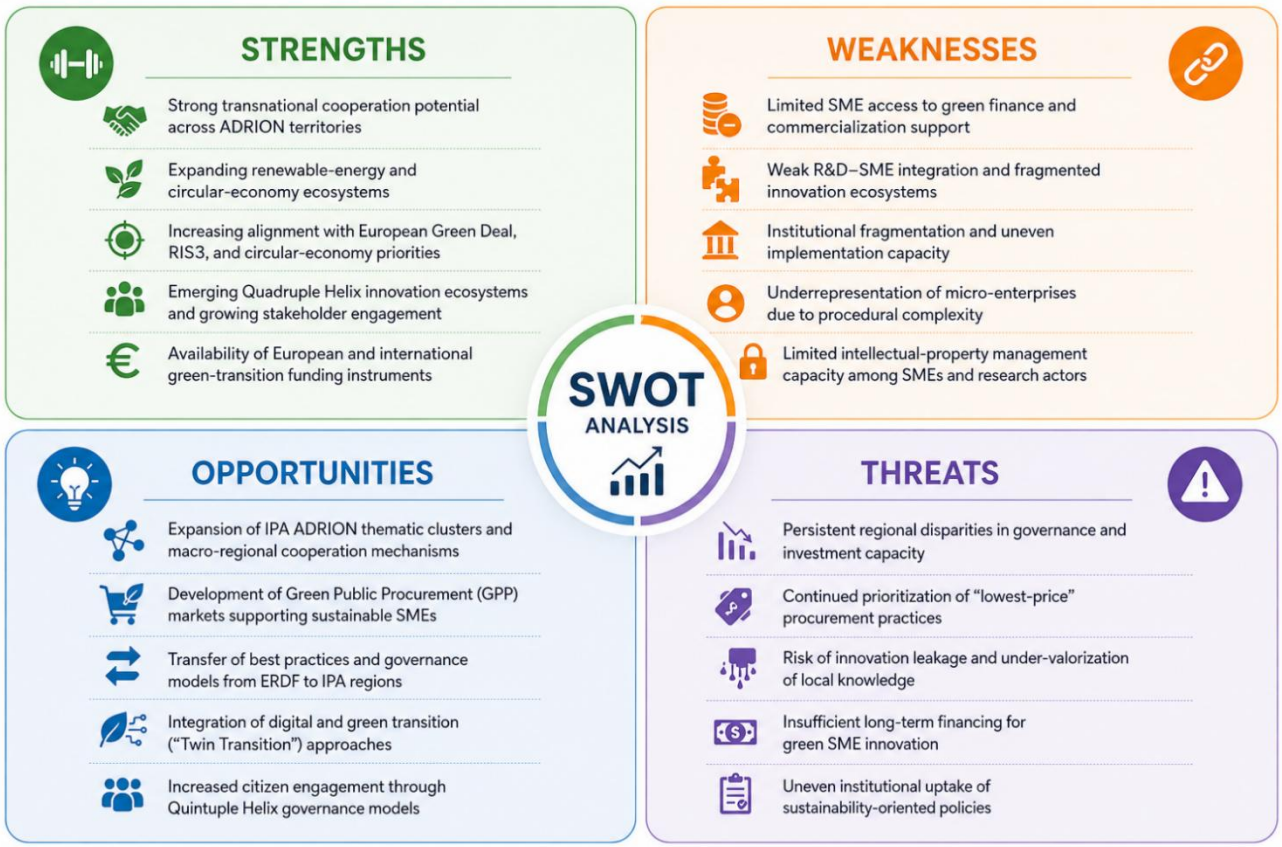
This intervention pathway provides the conceptual bridge between the shared vision and the SMART-oriented strategic objectives presented in the following section.

3.4 Strategic Objectives (SMART Framework)

To implement the shared vision, the Strategy defines a coherent set of Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) objectives. These objectives directly address the structural challenges identified in Chapter 2 and contribute to IPA ADRION Specific Objective 1.1: Strengthening innovation capacities in the Adriatic–Ionian region.

The strategic framework is grounded in the comparative territorial analysis and stakeholder co-creation processes conducted throughout the GREENSMES project. The assessment revealed a set of interconnected Strengths, Weaknesses, Opportunities, and Threats (SWOT) shaping the green-transition capacity of SMEs across the ADRION macro-region.

Table 1: Strategic SWOT Overview



Strategic Implications Emerging from the SWOT Analysis

The SWOT analysis confirms that the ADRION macro-region possesses strong collaborative and innovation potential, supported by growing policy alignment with European sustainability priorities and expanding transnational cooperation ecosystems. At the same time, significant structural barriers continue to constrain the effective green transition of SMEs, particularly in relation to financing,

institutional implementation capacity, commercialization pathways, and inclusion of micro-enterprises.

The analysis further demonstrates that macro-regional cooperation mechanisms, thematic clustering, Green Public Procurement (GPP), and stronger R&D–SME integration represent major opportunities for accelerating green innovation uptake and strengthening territorial cohesion. However, without coordinated intervention, existing asymmetries between ERDF and IPA territories risk widening due to uneven institutional capacities and market conditions.

In response to these findings, the Strategy establishes the following SMART-oriented objectives structured across 2 complementary implementation horizons:

A) Mid-term objectives (project implementation phase – until 2027);

B) Long-term objectives (durability and capitalization phase – 2027–2030).

A. Mid-term objectives (project implementation phase – until 2027);

Objective 1 – Strengthening Transnational Cooperation through IPA ADRION Thematic Clusters

The Strategy prioritizes the strengthening of transnational cooperation as a core enabling condition for successful R&D–SME interaction and green innovation uptake across the Adriatic–Ionian macro-region. In this respect, GREENSMES will capitalize on the cooperation opportunities created through the IPA ADRION

thematic clustering process, with reference to Innovation Cluster 1: "SMEs Green Transition and Digital Innovation".

Through this cluster, GREENSMES will seek synergies with complementary IPA ADRION (and beyond) projects as follows, addressing SME modernization, digital transition, green innovation, circular economy, and competitiveness:

- BFC
- A4SUSTINNO
- DIGITRANS
- PADRION
- INTERCLUSTER
- THEMATIC2GREEN
- FENESTRAE
- ADRIONWIND
- AI-GRAPE (CBC IT-SLO)
- SA-GOVERNANCE (CBC SA)

This cooperation will support the capitalization of GREENSMES results beyond the project framework, strengthen knowledge exchange, reduce duplication of effort, and contribute to a shared macro-regional approach for SME green transition and sustainable innovation.

SMART Orientation

By 2027, the Strategy aims to:

- ensure active participation of GREENSMES project partners in all joint capitalization or knowledge-exchange activities of IPA ADRION Innovation Cluster 1;
- establish structured cooperation with at least 8 complementary IPA ADRION projects included in the Cluster 1;

- identify and promote at least 1 transferable practice, tool, or policy recommendation emerging from Cluster 1 cooperation;
- develop at least 1 joint dissemination or capitalization output supporting macro-regional visibility and policy uptake.

Objective 2 – Enhancing Green, Digital, and Innovation Skills

Addressing the green and digital skills gap constitutes a prerequisite for effective SME participation in the twin transition. The Strategy therefore promotes targeted training programs and capacity-building actions supporting SMEs, BSOs, public authorities, and innovation intermediaries in sustainability-oriented business transformation.

SMART Orientation

By 2027, the Strategy aims to:

- provide training and capacity-building support to at least 180 stakeholders (SMEs, BSOs, researchers, and public authorities);
- support at least 45 SMEs in conducting sustainability self-assessments or green-transition readiness evaluations;
- strengthen the advisory role of at least 45 BSOs as intermediaries supporting SME green transformation across participating territories;
- capitalize capacity building activities by including them among services provided by project partners organizations at local level.

B. Long-term Objectives (Durability and Capitalization Phase 2027–2030)

Objective 3 – Improving Access to Green Innovation Finance

The Strategy recognizes limited access to finance as a critical barrier preventing SMEs from scaling green technologies and commercializing research outputs. Beyond awareness-raising and capacity-building activities, the Strategy promotes the exploration of decentralized financing mechanisms tailored to SME green innovation.

SMART Orientation

By 2030, the Strategy aims to:

- Support the promotion of at least 1 new financial instrument or venture capital fund to address to different levels of policy makers the need of SMEs to scale green tech through inclusion of policy makers into the Transnational GREENSMES strategic network and in participatory activities;
- Establish Decentralized Green Funding Pools: regional "Green Seed Funds" specifically for the "commercialization gap" supporting the phase between research prototypes and market-ready products.

Objective 4 – Supporting Micro-SME Inclusion and Simplification

The Strategy acknowledges that micro-enterprises remain underrepresented within green-transition ecosystems due to administrative complexity, limited technical capacity, and restricted access to advisory support.

SMART Orientation

By 2030, the Strategy aims to:

- support the promotion of at least 9 new actions targeted simplified advisory and innovation-support actions to micro-enterprises;
- integrate procedural simplification recommendations into regional stakeholder consultations and policy discussions;
- ensure that micro-enterprises represent at least 30% of SMEs participating in green transition capacity-building activities.

Objective 5 – Strengthening Transnational R&D–SME Cooperation

The Strategy prioritizes the establishment and gradual institutionalization of permanent transnational cooperation mechanisms connecting SMEs, research institutions, Business Support Organizations (BSOs), and public authorities across the ADRION macro-region. Emphasis is placed on strengthening structured collaboration capable of accelerating green innovation uptake and improving commercialization pathways for sustainable solutions.

SMART Orientation

By 2030, the Strategy aims to:

- facilitate at least 9 new transnational R&D–SME collaborations involving a minimum of 18 organizations, monitored through the GRENSMES Strategic Network and supported by existing European innovation networks.

- establish at least 1 thematic cooperation mechanism (GREENSMES Strategic Network);

Objective 6 – Sustaining the Transnational GREENSMES Innovation Network

Ensuring the continuity and institutional durability of the GREENSMES cooperation ecosystem beyond the project lifecycle is a central strategic priority and it is implemented by establishing the transnational GREENSMES Strategic Network (O2.1 of the project) and by delivering the Action Plan for the network (O2.2).

SMART Orientation

By 2030, the Strategy aims to:

- maintain an active transnational cooperation Network involving at least 9 ADRION territories;
- formalize long-term stakeholder engagement through at least 20 signed Letters of Intent subscribing the present Strategy adoption;
- organize at least one annual macro-regional networking or exchange activity after project completion;
- ensure continuous operation of GREENSMES knowledge-sharing and cooperation mechanisms beyond the project lifecycle.

Objective 7 – Strengthening Green Public Procurement (GPP) and Market Uptake

The Strategy recognizes that "lowest-price" procurement practices that prevail in the region (55%) limit market opportunities for sustainable SMEs and reduce incentives for green innovation investment.

SMART Orientation

By 2030, the Strategy aims to:

- encourage participating public authorities to progressively allocate 20–30% of relevant procurement procedures to green or circular criteria;
- support the development of at least 2 regional or local Green Public Procurement guidelines or pilot initiatives;
- promote SME participation in sustainable procurement markets through targeted awareness and matchmaking activities;
- facilitate the integration of sustainability criteria into regional innovation and development policies.

Objective 8 – Strengthening Institutional Capacity and Policy Integration

The Strategy seeks to reinforce institutional coordination, implementation capacity, and policy coherence across ADRION territories, particularly by supporting policy learning and transfer of best practices between ERDF and IPA regions.

SMART Orientation

By 2030, the Strategy aims to:

- contribute to the adaptation or update of at least 4 regional or national policy instruments related to green innovation, RIS3, circular economy, or SME sustainability;
- support at least 5 interregional policy-learning or best-practice transfer mechanisms between ERDF and IPA territories;
- strengthen institutional cooperation among ministries, regional authorities, BSOs, and innovation actors across the macro-region;
- promote long-term integration of GREENSMES priorities into territorial governance frameworks.

Objective 9 – Strengthening Intellectual Property (IP) and Innovation Valorization

SMEs in the region often lack the resources to identify or protect IP, leading to risks where local innovations are "leaked" or undervalued during transnational exchanges; in this view stronger support mechanisms for intellectual-property identification, protection, and valorization is expected.

SMART Orientation

By 2030, the Strategy aims to:

- promote integration of IP-awareness and innovation-valorization guidance into BSOs capacity building activities;
- increase SME awareness regarding patenting, licensing, and innovation-protection tools across participating territories.

Objective 10 – Stronger Citizens Engagement

Moving beyond the Quadruple Helix to include citizens and civil society as active "co-creators" as long-term green transition requires stronger citizen engagement and societal participation.

SMART Orientation

By 2030, the Strategy aims to:

- support participatory co-creation activities involving civil-society organizations, local communities, and SMEs;
- promote behavioral-change awareness campaigns related to circular economy, sustainable tourism, and resource efficiency;

Taken together, these SMART-oriented objectives establish a clear progression from project-level cooperation and capacity building toward long-term institutional integration, policy mainstreaming, financial sustainability, and macro-regional transformation. The objectives therefore constitute the operational bridge between the strategic vision of GREENSMES, and the implementation framework and Action Plan presented in the following chapter.

The following table summarizes the interrelation between the SWOT challenges identified through the GREENSMES analysis and the corresponding SMART-oriented strategic objectives, including expected impacts and implementation timeframes.

Table 2: SWOT Challenges Linked to SMART Objectives

The following table summarizes the interrelation between the SWOT challenges identified through the GREENSMES analysis and the corresponding SMART-oriented strategic objectives, including expected impacts and implementation timeframes.

SWOT Challenge (Barrier to Address)	**Strategic Objective** (Addressing the Challenge)	**Specific**	**Measurable**	**Achievable**	**Relevant**	**Time-bound**	**Expected Impact**
Fragmented transnational cooperation and weak capitalization of project knowledge	Objective 1 – Strengthening Transnational Cooperation through IPA ADRION Thematic Clusters	Participation in IPA ADRION Innovation Cluster 1 and cooperation with complementary projects	8 IPA ADRION projects and 1 joint capitalization output	Uses existing ADRION cooperation mechanisms	Supports macro-regional cooperation and knowledge exchange	By 2027	Stronger macro-regional visibility and transfer of good practices
Green and digital skills gaps limiting SME transition capacity	Objective 2 – Enhancing Green, Digital, and Innovation Skills	Capacity-building and sustainability training for SMEs and BSOs	180 stakeholders trained and 45 SMEs supported	Implemented through project training activities	Addresses twin-transition needs of SMEs	By 2027	Improved SME readiness for green and digital transformation

SWOT Challenge (Barrier to Address)	**Strategic Objective** (Addressing the Challenge)	**Specific**	**Measurable**	**Achievable**	**Relevant**	**Time-bound**	**Expected Impact**
Limited access to finance and commercialization support	Objective 3 – Improving Access to Green Innovation Finance	Promotion of financing mechanisms and venture-capital support	At least 1 financial mechanism promoted	Supported through policy-maker engagement	Addresses commercialization and scaling barriers	By 2030	Improved access to finance for green SMEs
Underrepresentation of micro-enterprises due to procedural complexity	Objective 4 – Supporting Micro-SME Inclusion and Simplification	Targeted simplified advisory and innovation-support actions	9 support actions and 30% micro-SME participation	Implemented through simplified participation mechanisms	Improves inclusiveness in green-transition activities	By 2030	Higher participation of micro-enterprises
Weak and fragmented R&D–SME cooperation structures	Objective 5 – Strengthening Transnational R&D–SME Cooperation	Creation of structured transnational R&D–SME collaborations	9 collaborations involving 18 organizations	Supported through the GREENSMES Strategic Network	Strengthens macro-regional innovation ecosystems	By 2030	Improved transnational innovation cooperation

SWOT Challenge (Barrier to Address)	**Strategic Objective** (Addressing the Challenge)	**Specific**	**Measurable**	**Achievable**	**Relevant**	**Time-bound**	**Expected Impact**
Lack of long-term cooperation continuity after project completion	Objective 6 – Sustaining the Transnational GREENSMES Innovation Network	Maintenance of a permanent transnational cooperation network	9 ADRION territories involved and 20 Letters of Intent signed	Based on institutional commitment and stakeholder participation	Ensures long-term durability of project results	By 2030	Sustained macro-regional cooperation and institutional continuity
Lowest-price procurement practices limiting green-market opportunities	Objective 7 – Strengthening Green Public Procurement (GPP) and Market Uptake	Integration of green criteria into procurement systems	20–30% of procurement procedures incorporating green criteria	Supported through pilot initiatives	Creates stable demand for sustainable SME solutions	By 2030	Stronger green markets and SME competitiveness
Institutional fragmentation and uneven implementation capacity	Objective 8 – Strengthening Institutional Capacity and Policy Integration	Policy learning and integration of green innovation priorities	4 policy instruments adapted and 5 learning mechanisms supported	Builds on ERDF–IPA cooperation	Improves territorial policy coherence	By 2030	Stronger governance capacity and coordination

SWOT Challenge (Barrier to Address)	**Strategic Objective** (Addressing the Challenge)	**Specific**	**Measurable**	**Achievable**	**Relevant**	**Time-bound**	**Expected Impact**
Limited intellectual-property awareness and innovation valorization	Objective 9 – Strengthening Intellectual Property and Innovation Valorization	Integration of IP-awareness guidance into BSO activities	Awareness activities implemented across territories	Uses existing BSO training structures	Protects local innovation	By 2030	Reduced innovation leakage and improved competitiveness
Low citizen engagement and limited societal participation in green transition	Objective 10 – Stronger Citizens Engagement	Participatory co-creation and awareness-raising activities	Citizen engagement campaigns implemented	Supported through civil society participation	Improves social acceptance of green transition	By 2030	Stronger sustainability culture and public participation

3.5 Expected Transformational Impact

Beyond the achievement of individual objectives, the GREENSMES Strategy is expected to generate a broader transformational impact across economic, institutional, and societal dimensions of the Adriatic–Ionian region.

Economically, strengthened R&D–SME cooperation and increased adoption of green technologies will enhance productivity, competitiveness, and access to emerging sustainability-oriented markets. Institutionally, improved coordination among public authorities, research actors, and intermediary organizations will contribute to more coherent governance frameworks and evidence-based policymaking.

Socially and environmentally, the transition toward circular and low-carbon development models will support job creation in green sectors, improve environmental quality, and reinforce regional resilience to climate and economic shocks.

At the macro-regional scale, the Strategy is expected to reinforce ADRION's collective identity as a space of cooperative green innovation, strengthening its visibility within the European policy landscape and enabling sustained transnational collaboration beyond the project lifecycle.

Through these cumulative effects, GREENSMES positions the Adriatic–Ionian macro-region on a long-term trajectory toward climate-neutral, innovation-driven, and socially inclusive development, ensuring that the benefits of the green transition are both measurable and enduring.

4. Strategy Implementation and Integration into Policies, Local Strategies and Recommendations

4.1 Introduction

The effective implementation of the GREENSMES Strategy requires a coordinated governance framework capable of translating the shared vision and SMART-oriented objectives defined in Chapter 3 into operational, transnationally coherent action across the Adriatic–Ionian macro-region.

Within the IPA ADRION context, implementation extends beyond project execution and is intrinsically linked to the transnational added value generated through cooperation among regions with diverse institutional maturity, socio-economic conditions, and innovation capacities. This diversity implies that the green transition cannot follow a rigid or uniform pathway. Instead, an adaptive and dynamic implementation logic is required, capable of responding to national specificities while progressively converging toward common macro-regional priorities.

In this perspective, implementation functions as a bridge between territorial differences and shared sustainability objectives, enabling knowledge transfer, policy learning, and coordinated innovation uptake. Accordingly, this chapter defines the strategic implementation architecture of GREENSMES, focusing on governance arrangements, co-creation outcomes, operational tools, and monitoring mechanisms that ensure coherence and durability while remaining clearly distinct from the subsequent operational Action Plan, in line with IPA ADRION Programme guidance.

4.2 Implementation at GREENSMES Transnational Level

The implementation logic of GREENSMES is grounded in the collective intelligence generated through Transnational Co-creation Workshops and Quadruple Helix Work Cafés, which functioned as participatory environments for identifying systemic barriers, territorial opportunities, and priority actions required to bridge the R&D–SME gap across the ADRION macro-region.

These co-creation processes revealed that limited trust, communication asymmetries, and the existence of different operational "languages" between research communities and SMEs constitute core structural barriers to innovation uptake. Implementation will therefore prioritize the creation of structured entry points where SMEs can articulate needs in accessible business-oriented terms, while research actors provide market-relevant and scalable solutions.

The synthesis of transnational dialogue further highlights the necessity of permanent cooperation structures, the pivotal role of Business Support Organizations in facilitating access to innovation and finance, the urgency of capacity-building aligned with the Twin Transition, and the importance of coordinated policy frameworks capable of ensuring durability beyond project duration.

Collectively, these findings confirm that effective implementation depends on continuous co-creation, shared ownership, and adaptive governance, positioning GREENSMES as a catalyst for long-term systemic transformation rather than a time-limited intervention.

4.3 Tools and Implementation Mechanisms

4.3.1 Letters of Intent and Institutional Commitment

The long-term effectiveness and territorial uptake of the GREENSMES Strategy depend on the active engagement not only of project partners, but also of a broader ecosystem of regional stakeholders operating across the ADRION macro-region formalizing their commitment in adopting and implementing the full Strategy or objectives being more in line with their vision and missions and the territorial needs.

The involvement of regional stakeholders – such as public authorities, chambers of commerce, innovation agencies, Business Support Organizations, research institutions, and other Quadruple Helix actors - strengthen the macro-regional ownership of the Strategy while creating added value through participation in transnational cooperation processes, policy-learning mechanisms, green innovation networks, and alignment with European sustainability and funding priorities.

In this perspective, the Strategy functions not only as a GREENSMES project output, but also as a shared reference framework – resulting from real basis consultation and interaction with entrepreneurial ecosystem actors in the IPA ADRION region - supporting ideation of new tools and mechanism, long-term institutional cooperation and coordinated green-transition governance beyond the GREENSMES consortium.

This commitment follows a layered approach:

- Internal Letters of Intent[1] are endorsed by project partners to ensure institutional embedding of results within participating organizations;
- Stakeholder Letters of Intent are addressed to external actors such as regional authorities, chambers, and innovation bodies, functioning as cooperation agreements that support post-project sustainability, policy uptake, and long-term alignment with green innovation priorities. Organization engaged in Cluster 1 will be also invited to adopt the present Strategy by signing the LoI.

The progressive collection of signed Letters of Intent throughout implementation constitutes tangible evidence of regional ownership, institutional continuity, and strategic durability.

4.3.2 The Transnational GREENSMES Strategic Network

At the macro-regional scale, the Strategy institutionalizes the Transnational GREENSMES Strategic Network as an ongoing and permanent platform for interaction among R&D communities, SMEs, public authorities, and intermediary organizations.

Beyond a simple cooperation structure, the Network operates as a living laboratory for testing green-innovation tools, validating collaboration models, and enabling continuous knowledge exchange and structured partnership development across ADRION territories. Through this operational continuity, it performs a transnational coordination function comparable to a strategic steering

[1] Templates of both type of LoIs are included as Annexes in the present document

mechanism, ensuring coherence between national and regional initiatives while reinforcing macro-regional learning.

This ongoing character secures durability beyond the project lifecycle and strengthens the collective capacity of the Adriatic–Ionian region to advance toward coordinated green transformation.

4.3.3 Strategic Bridge to the Action Plan and Policy Integration

In accordance with IPA ADRION Programme guidance, this section defines the strategic framework of implementation without overlapping with the forthcoming Action Plan, which will operationalize priorities through concrete actions, timelines, and financial resources.

Within this strategic framing, implementation is closely connected to national and regional policy instruments, particularly National Energy and Climate Plans, Climate Laws, Circular Economy Strategies, and RIS3 Smart Specialization frameworks. The Strategy therefore acts as a policy-integration catalyst, supporting stronger green orientation of regional innovation priorities, enhanced R&D–SME cooperation, and the emergence of transnational green innovation ecosystems.

This positioning preserves conceptual clarity between strategy and execution while ensuring that GREENSMES contributes to long-term policy convergence across the ADRION macro-region.

4.4 Monitoring and Evaluation

Robust monitoring and evaluation mechanisms are essential for ensuring the effectiveness, adaptability, and long-term impact of the GREENSMES Strategy.

The monitoring framework combines quantitative measurement through KPIs aligned with IPA ADRION indicators and qualitative assessment capturing behavioral and organizational change among participating SMEs.

Annual satisfaction surveys and targeted interviews complement indicator tracking, enabling evaluation of the real transformation of business culture toward circular and green practices.

Monitoring is structured across two complementary governance levels. At national level, competent ministries, research institutions, and business support bodies are responsible for data collection and primary analysis. At transnational level, aggregated data are synthesized within the GREENSMES Transnational Network, enabling cross-country comparison, identification of best practices, and preparation of annual Progress Reports that ensure transparency and bottom-up feedback from SMEs.

Emphasis is placed on capitalization, durability, and transferability, ensuring that GREENSMES outcomes extend beyond the project lifecycle and contribute to sustained macro-regional transformation, policy learning, and replication across ADRION territories.

Through this integrated monitoring architecture, the Strategy establishes a continuous feedback loop between implementation, learning, and policy evolution.

Table 3: Monitoring and Evaluation Mechanisms

Implementation Pillar	Primary Tool	Governance Level	Monitoring Responsibility	Monitoring Timeline
Commitment	Letters of Intent	Regional / Institutional	GREENSMES PPs	2027 and ongoing beyond the project duration
Cooperation	Transnational Strategic Network	Macro-regional (ADRION)	Stakeholders signing the Letters of intent	2027 and ongoing beyond the project duration
Modernization	Capacity Building & Pilot Actions	SME / Operational	Stakeholders signing the Letters of Intent	2027 and ongoing beyond the project duration
Policy Uptake	RIS3 Integration Guidelines	National / Regional	Stakeholders signing the Letters of Intent	2027 and ongoing beyond the project duration

5. Capitalization, Durability, and Transferability

5.1 Capitalization of Results

Capitalization within the GREENSMES framework refers to the systematic integration, institutional uptake, and long-term utilization of the knowledge, tools, and cooperation models generated throughout the project lifecycle. Rather than treating project outputs as isolated deliverables, the strategy promotes their transformation into operational reference points capable of influencing regional innovation ecosystems and policy design across the Adriatic–Ionian macro-region.

Within this framework, the GREENSMES Strategy functions as a core capitalization and policy-support instrument supporting the long-term institutional uptake, reuse, and mainstreaming of GREENSMES results, cooperation mechanisms, and innovation-governance approaches across the ADRION macro-region.

Emphasis is placed on the mainstreaming of core outputs, including the Good Practices Repository, co-creation methodologies, and validated R&D–SME cooperation models, into regional governance and planning instruments.

The Strategy specifically supports the capitalization of project experience and stakeholder-driven recommendations related to transnational R&D–business cooperation, intermediary innovation-support structures, green financing mechanisms, Smart Specialization integration, Green Public Procurement (GPP), and sustainable SME modernization pathways. Their integration into Smart Specialization Strategies and complementary regional development frameworks enables the translation of project learning into structured investment priorities, policy guidance, and innovation-support mechanisms, strengthening evidence-

based policymaking and enhancing coherence between transnational experimentation and regional implementation.

In addition, capitalization extends beyond internally generated results. The strategy actively seeks synergies with previous and ongoing EU initiatives, including ADRION and Horizon projects, ensuring that the GREENSMES Repository functions as a dynamic and continuously enriched knowledge base. This approach prevents duplication of effort, promotes reuse of validated solutions, and embeds GREENSMES within the broader European ecosystem of green innovation cooperation.

Capitalization is further reinforced through the participation of GREENSMES in the IPA ADRION "Cluster 1: SMEs Green Transition and Digital Innovation", which promotes structured cooperation and exchange with complementary projects including BFC, A4SUSTINNO, DIGITRANS, PADRION, INTERCLUSTER, THEMATIC2GREEN, FENESTRAE, and ADRIONWIND. Through this clustering framework, the Strategy enhances opportunities for transfer of good practices, policy-learning activities, joint dissemination, and future macro-regional cooperation initiatives related to SME modernization, green innovation, digital transition, circular economy, and sustainable competitiveness

The Strategy may furthermore serve as a strategic reference framework and starting point for the development of future ADRION, Interreg, Horizon Europe, and other transnational cooperation projects building upon the results, governance approaches, and innovation-support methodologies developed through GREENSMES.

At macro-regional level, capitalization is further reinforced through the continuous circulation of knowledge within the Transnational GREENSMES Strategic Network, which operates as a repository, dissemination channel, and peer-learning environment transforming monitoring results and stakeholder feedback into transferable strategic intelligence.

5.2 Durability of the Strategy

Durability concerns the capacity of the GREENSMES Strategy to maintain relevance, functionality, and institutional impact beyond the formal conclusion of project funding. Achieving durability requires governance continuity, stakeholder ownership, and sustainable financial pathways capable of supporting long-term cooperation. In this respect, the GREENSMES Strategy supports the long-term durability of GREENSMES results, cooperation mechanisms, governance approaches, and innovation-support models beyond the immediate implementation period of the project itself.

From a governance perspective, durability is secured through the institutionalization of the Transnational GREENSMES Strategic Network as a permanent cooperation platform linking SMEs, research organizations, public authorities, and intermediary actors. Importantly, sustainability is not conceived as a future condition but as an ongoing step. The active operation of the Network during project implementation functions as an incubation phase, ensuring that by 2027 cooperation mechanisms are already tested, operational, and institutionally embedded within participating organizations.

The durability of the Strategy is additionally reinforced through its alignment with the IPA ADRION Territorial Analysis Post-2020 and with the institutional priorities of Policy Objective 1 "A Smarter Europe", increasing its long-term policy relevance and applicability within future innovation-governance and transnational cooperation processes.

Financial durability is supported through alignment with European, national, and regional funding ecosystems, enhancing access to follow-up resources capable of sustaining collaboration, capacity building, and innovation uptake beyond the project lifecycle.

Furthermore, the strategic networking established through IPA ADRION Cluster 1 creates favorable conditions for continued cooperation, joint capitalization activities, and development of follow-up initiatives capable of extending the long-term impact and usability of GREENSMES results and strategic recommendations.

5.3 Transferability of the Output

Transferability refers to the capacity of GREENSMES methodologies, governance approaches, and green-innovation support models to be replicated or adapted across different territorial, sectoral, or institutional contexts. In particular, the GREENSMES Strategy facilitates the transferability of project results, policy recommendations, governance approaches, and cooperation methodologies concerning transnational R&D–SME interaction, intermediary support structures, green financing mechanisms, Smart Specialization integration, Green Public Procurement, and innovation-capacity strengthening. Given the structural diversity of the Adriatic–Ionian region, transferability is conceptualized as adaptive

and modular scaling, grounded in shared strategic principles and flexible implementation pathways.

Common methodological frameworks, cooperation formats, and knowledge-exchange mechanisms are designed as modular tools that can be adjusted to varying governance capacities and economic structures. Co-creation processes, R&D–SME matchmaking models, and capacity-building approaches can therefore be replicated across sectors or territories while remaining sensitive to local priorities.

Emphasis is placed on knowledge transfer between high-maturity ERDF regions and emerging IPA economies of the non EU (IPA Countries), ensuring that advanced green-innovation practices are adapted to different administrative, financial, and market conditions.

Participation in IPA ADRION "Cluster 1: SMEs Green Transition and Digital Innovation" further strengthens the transferability potential of GREENSMES results and strategic approaches by enabling structured peer learning, exchange of practices, and coordinated dissemination activities among projects addressing similar macro-regional priorities. Through structured peer learning and targeted cooperation within the Transnational Strategic Network, this approach accelerates diffusion of innovation while reducing regional disparities in transition capacity.

Beyond the ADRION macro-region, the strategic logic and cooperation mechanisms developed by GREENSMES present strong potential for application in other European territorial cooperation contexts, positioning the strategy as a scalable model of transnational green-innovation governance.

Consequently, the GREENSMES Strategy should be understood not only as a project output, but also as a transferable strategic and policy-support framework capable of informing future cooperation initiatives, institutional learning processes, and macro-regional innovation-governance models across different European cooperation environments.

6. Conclusions and Recommendations

This final chapter synthesizes the analytical findings, strategic orientation, and implementation logic developed throughout the GREENSMES Strategy, translating them into coherent conclusions and forward-looking policy recommendations. Particular emphasis is placed on the long-term capitalization, durability, and transferability of project results, as well as on the consolidation of the Transnational GREENSMES Strategic Network as an ongoing structural component of macro-regional cooperation in the Adriatic–Ionian area.

6.1 Summary Conclusions

The analysis presented across the previous chapters confirms that the Adriatic–Ionian macro-region faces a dual reality. On the one hand, significant disparities persist in institutional capacity, green-innovation maturity, and SME readiness between EU Member States and non-EU (IPA countries). On the other hand, the region demonstrates strong shared potential rooted in natural resources, emerging innovation ecosystems, and growing alignment with European sustainability objectives.

Within this context, the GREENSMES Strategy provides a coherent transnational response aimed at strengthening R&D–SME cooperation, accelerating the adoption of green and circular business models, and enhancing the strategic integration of innovation within regional development frameworks. The Strategy moves beyond short-term project logic by embedding mechanisms for capitalization of knowledge, institutional durability of cooperation structures, and adaptive transferability across territories with diverse governance and economic conditions.

A central conclusion is that the long-term effectiveness of green transition policies in the ADRION space depends less on the existence of strategic commitments and more on sustained collaboration, stakeholder ownership, and policy integration. The Strategy therefore underscores that the Transnational GREENSMES Strategic Network is not merely a future aspiration but an ongoing step already initiated during the project's lifetime, serving as the primary vehicle for the long-term governance of the macro-region's green transition. Its progressive institutionalization represents a decisive shift from temporary cooperation toward permanent macro-regional coordination capacity.

6.2 Recommendations at Transnational Level

Building on the strategic evidence and conclusions above, a set of forward-looking recommendations is proposed to accelerate the green transformation of SMEs and reinforce macro-regional cooperation across the Adriatic–Ionian region.

Transnational R&D–SME cooperation mechanisms should be further consolidated and expanded so that collaboration platforms, co-creation methodologies, and

innovation-support services remain operational beyond the duration of the project. Strengthening the governance role of the Transnational GREENSMES Strategic Network is essential for sustaining knowledge exchange, partnership development, and coordinated strategic learning at macro-regional scale.

Policy alignment across ADRION territories should continue to deepen, particularly through the integration of GREENSMES priorities within Smart Specialization Strategies, National Energy and Climate Plans, and circular-economy frameworks. This alignment will facilitate coordinated investment, reduce fragmentation, and support the emergence of transnational green-innovation value chains. Such long-term political commitment is practically evidenced through the formalization of Letters of Intent (LoIs) signed by Project Partners and regional stakeholders, which constitute the institutional foundation for the strategy's uptake and its integration into local and regional policy instruments.

Targeted financial and technical support for SMEs must be reinforced to translate strategic ambition into practical transformation. Emphasis should be placed on the Twin Transition, ensuring that SMEs receive integrated support for both digital and green modernization, since digital monitoring tools, data-driven resource management, and smart production systems are essential for the effective implementation of circular and low-carbon business models. Business Support Organizations are expected to play an expanded intermediary role in delivering these services and facilitating SME participation in innovation ecosystems.

Systematic capitalization and transferability mechanisms should be maintained and strengthened through the continuous enrichment of the GREENSMES knowledge base, structured peer learning between ERDF and IPA regions, and the

adaptation of modular cooperation tools to diverse territorial contexts. These processes will ensure that successful practices diffuse across the macro-region and contribute to broader European green-innovation ecosystems.

Finally, long-term durability must remain a central governance priority. Sustained political commitment, institutional embedding of cooperation mechanisms, and mobilization of complementary funding sources are essential conditions for ensuring that GREENSMES evolves from a project initiative into a permanent macro-regional instrument for green innovation and sustainable SME development, capable of supporting climate neutrality, sustainable competitiveness, and inclusive economic growth across the Adriatic–Ionian region.

DISCLAIMER. *This document has been produced with the financial assistance of the European Union. The content of the document is the sole responsibility of PP2-Business and Cultural Development Centre (KEPA) and can under no circumstances be regarded as reflecting the position of the European Union and/or IPA ADRION programme authorities.*

ANNEXES

Annex I – Project Partners' Letters of Intent (PPs LoIs)

Letter of Intent

for GREENSMES project partners Commitment to the

"Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation"

WHEREAS, the undersigned organization [name of organization in English] _____ (hereinafter "The Signatory"), legally represented by [name and title of legal representative] _____, is partner in the project **Enhancing SMEs' modernization and green innovation and transition towards successful sustainability by transnational collaborative practices and tools (GREENSMES)** funded under the Interreg IPA ADRION Programme 2021-2027;

WHEREAS, the Signatory has participated in jointly developing and finalizing the project Output 1.1 "Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation" (hereinafter "The Strategy");

WHEREAS, The Strategy outlines a common vision and sets specific, measurable, achievable, relevant, and time-bound midterm and long-term goals and objectives based on a thorough analysis of territorial needs, opportunities, and challenges for green economy and innovation in the IPA ADRION project area;

NOW, THEREFORE, BE IT KNOWN that the Signatory declare its commitment and intention to work collaboratively towards the successful achievement of The Strategy's outlined objectives, based on the following declarations:

I. Commitment to Implementation

The Signatory is committed to translating the vision of The Strategy into actionable results by:

1. Actively promoting and facilitating sustainable, transnational cooperation between the research and development (R&D) sector and the business community within their respective regions.
2. Dedicating necessary internal resources and expertise to pursue the defined **objectives and goals** as set out in The Strategy.
3. Participating in the transnational coordination efforts required to monitor, evaluate, and adapt the implementation actions derived from The Strategy.

II. Commitment to Outreach and Adoption

The Signatory is further committed to ensuring the long-term impact and sustainability of The Strategy beyond the project lifecycle by:

1. Seeking the formal **adoption and integration** of The Strategy by relevant institutions, including policy makers and key stakeholders, across the wider IPA ADRION area.
2. Utilizing The Strategy as a foundational, jointly developed bottom-up document to influence and inform future **organisational and regional planning** activities in relation to green innovation.
3. Advocating for the policy priority of green and sustainable development at all relevant institutional levels, thereby contributing to the macro-regional objectives of the IPA ADRION area.

This Letter of Intent signifies the resolve of the Signatory to uphold and actively pursue the goals of The Strategy, recognizing its central role in fostering a greener, more innovative, and sustainable future for the region.

Annex 1: O1.1 "Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation"

Signed by

Organization name in national language:	Organization name in English language:

Country:	Type of Partner:

Legal representative name and title:	Place and date:

Signature and stamp:

Annex II – Stakeholders' Letters of Intent Templates

Letter of Intent

for Stakeholder Endorsement of the

"Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation"

WHEREAS, the partners of the project **Enhancing SMEs' modernization and green innovation and transition towards successful sustainability by transnational collaborative practices and tools (GREENSMES),** funded under the Interreg IPA ADRION Programme 2021-2027, developed the project Output 1.1 "Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation" (hereinafter "The Strategy");

WHEREAS, the undersigned [name and title of signing legal representative] _____, legally representing [name of organization in English] _____ (hereinafter "The Signatory"), recognize the importance of The Strategy's common vision, which aims to strengthen transnational cooperation between the research and development (R&D) sector and the business community for green innovation across the IPA ADRION area;

WHEREAS, The Strategy's objectives align with the regional and organizational planning priorities of the undersigned for green and sustainable development;

NOW, THEREFORE, BE IT KNOWN that The Signatory formally declares its support and intention to collaborate with the GREENSMES partnership to advance the goals of The Strategy, based on the following declarations:

I. Declaration of Support and Advocacy

The Signatory is committed to supporting the successful achievement of The Strategy by:

1. **Endorsing** the strategic vision and the defined SMART midterm and long-term goals for green innovation and the green economy in the IPA ADRION area.
2. **Promoting** awareness of The Strategy among relevant institutions, regional authorities, and actors within the Signatory's network and sphere of influence.
3. **Advocating** for the formal adoption, integration, and utilization of The Strategy by policy-making institutions to influence future regional planning activities.

II. Financial and Resource Clarification

The Signatory explicitly confirms that this endorsement and commitment to support is non-binding regarding resources, and specifically:

1. **No Financial Obligation:** This Letter of Intent does **not** constitute a financial commitment or obligation to contribute funding to the implementation of The Strategy.
2. **No Personnel Requirement:** This endorsement does **not** require the dedication of specific personnel or the reallocation of internal staff resources by the signatory organization. The commitment is purely one of support, endorsement, and policy advocacy.

This Letter of Intent signifies the Signatory's support for the aims of The Strategy, recognizing its potential contribution to the policy priority for green and sustainable development in the IPA ADRION area.

Annex 1: O1.1 "Strategy to facilitate successful transnational interaction between R&D and business community towards green innovation"

Signed by

Organization name in national language:	Organization name in English language:
_____	_____

Country: _____

Type of organization[2]: _____

Legal representative name and title: _____

Place and date: _____

Signature and stamp:

[2] Public authority, Policy institution, R&I centre, Business Support Organization, SME/Enterprise, other