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JOINT ACTION PLAN FOR SUSTAINABLE AIR TRANSPORT IN THE SOUTH ADRIATIC REGION

Lead Partner: Airports of Puglia S.p.A. (LP1)

Project Partners: Albanian Civil Aviation Authority (PP2), Airports of Montenegro (PP3)

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY 3

2. STRATEGIC CONTEXT AND RATIONALE 4

2.1 Territorial Context of the South Adriatic Area **4**

2.2 Common Challenges Identified by the Partners **4**

3. OBJECTIVES OF THE JOINT ACTION PLAN 5

3.1 General Objective **5**

3.2 Specific Objectives **5**

4. JOINT METHODOLOGICAL FRAMEWORK 5

5. LIST OF POSSIBLE MEANS FOR MAKING REMOTE AREAS MORE ACCESSIBLE IN THE SOUTH ADRIATIC AREA 6

5.1 Strategic Importance of Accessibility in the South Adriatic Area **6**

5.2 Typology of Remote and Peripheral Areas in the South Adriatic Area **6**

5.3 Principle of Using Existing Infrastructure as the Backbone of Accessibility **7**

5.4 Air Mobility Solutions for Inland and Rural Territories **7**

5.5 Accessibility of Islands and Coastal Areas **8**

5.6 Accessibility for Seasonal Tourism Destinations **8**

5.7 Emergency, Medical and Civil Protection Accessibility **8**

5.8 Progressive Introduction of Advanced Air Mobility for Accessibility **9**

5.9 Multimodal Integration as an Accessibility Multiplier **9**

6.TESTING OF THE CROSS-BORDER MODEL FOR SUSTAINABLE AIR CONNECTIVITY SOUTH ADRIATIC AREA 9

6.1 Role of Testing within the Joint Action Plan **9**

6.2 Objectives of the Joint Testing Framework **10**

6.3 Scope and Typology of Testing Activities **10**

6.4 Operational Testing of Cross-Border Routes **11**

6.5 Testing of Accessibility Solutions for Remote Areas **11**

6.6 Emergency and Medical Testing Scenarios **11**

6.7 Testing of Advanced Air Mobility and Innovative Solutions **12**

6.8 Cross-Border Coordination and Governance Testing **12**

6.9 Lessons Learned and Model Refinement **12**

7. JOINT MODEL FOR SUSTAINABLE AIR CONNECTIVITY 12

7.1 Integrated Route Typologies **12**

8. JOINT PRIORITY CROSS-BORDER ROUTES 13

9. JOINT ACTIONS FOR ACCESSIBILITY OF REMOTE AREAS 13

9.1 Shared Accessibility Measures **13**

10. ENVIRONMENTAL AND SUSTAINABILITY FRAMEWORK 14
10.1 Decarbonisation Strategy **14**
10.2 Environmental Monitoring and Protection **14**
11. GOVERNANCE AND COORDINATION STRUCTURE 14
11.1 Joint Governance Model **14**
11.2 Role of the MoU **14**
12. IMPLEMENTATION ROADMAP 15
13. CONTRIBUTION TO THE CROSS-BORDER MODEL 15
14. JOINT TERRITORIAL FRAMEWORK AND SYSTEMIC INTEGRATION 15
15. JOINT NETWORK LOGIC AND CROSS-BORDER CONNECTIVITY MODEL 16
16. JOINT ROUTE STRUCTURE AND FUNCTIONAL CLUSTERS 16
17. JOINT INFRASTRUCTURE AND OPERATIONAL READINESS 17
18. JOINT ENVIRONMENTAL AND SUSTAINABILITY FRAMEWORK 18
19. JOINT GOVERNANCE AND INSTITUTIONAL COORDINATION 18
20. JOINT IMPLEMENTATION AND SCALING STRATEGY 19
21. MEMORANDUM OF UNDERSTANDING AS AN INSTITUTIONAL SUPPORT TOOL 19
21.1 Legal and Institutional Nature of the MoU **19**
21.2 Parties Involved and Scope of Cooperation **20**
21.3 Governance and Coordination Mechanism **20**
21.4 Resources, Intellectual Property and Data Protection **21**
21.5 Contribution of the MoU to the Joint Action Plan **21**
22. CONCLUSIONS 22

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JOINT ACTION PLAN
FOR A CROSS-BORDER MODEL OF SUSTAINABLE AIR CONNECTIVITY SOUTH ADRIATIC AREA (ITALY – APULIA | ALBANIA | MONTENEGRO)

1. EXECUTIVE SUMMARY

This Joint Action Plan (JAP) constitutes the strategic and operational backbone for the development of a cross-border model of sustainable, inclusive and resilient air connectivity in the South Adriatic Area, jointly implemented by project partners from Italy (Apulia Region), Albania and Montenegro. The JAP is elaborated exclusively on the basis of the findings, feasibility analyses, route assessments, accessibility studies, testing activities and institutional frameworks developed by each partner within the ON CLOUD NINE project. It integrates the national Action Plans into a single, coherent cross-border document, transforming individual territorial priorities into a shared South Adriatic air mobility strategy.

The Plan responds to common structural challenges identified in all three territories:

- insufficient connectivity of remote and peripheral areas,
- strong seasonality of tourism-related mobility,
- limited commercial viability of thin cross-border routes,
- long travel times caused by road congestion and maritime dependency,
- high exposure to environmental and emergency risks,
- the need to decarbonise short- and medium-range transport.

The JAP establishes a hybrid air mobility model combining:

- Public Service Obligation (PSO) routes,
- Services of General Economic Interest (SGEI),
- regional turboprop aviation,
- light aircraft and seaplane operations,
- helicopter services,
- and phased deployment of Advanced Air Mobility (AAM) solutions.

Through coordinated implementation, the Joint Action Plan contributes directly to the creation of a **South Adriatic Air Connectivity Corridor**, aligned with EU Green Deal objectives, PSO guidelines, and emerging European AAM regulatory frameworks.

2. STRATEGIC CONTEXT AND RATIONALE

2.1 Territorial Context of the South Adriatic Area

The South Adriatic Area presents strong socio-economic interdependencies between Apulia, Albania and Montenegro, driven by:

- intense tourism flows,
- long-standing diaspora and family mobility,
- maritime trade and port systems,
- institutional cooperation,
- shared environmental and civil protection challenges.

Despite geographical proximity, **direct and sustainable air connections remain underdeveloped**, particularly between secondary airports, coastal resorts, marinas, and inland rural areas. All three national Action Plans confirm that traditional commercial aviation alone is insufficient to address these gaps .

Across Apulia, Albania and Montenegro, demand for air connectivity is shaped by a combination of permanent and seasonal factors. Tourism is a dominant driver, particularly along coastal and island areas, with pronounced peaks during summer months. These peaks generate congestion on road and ferry networks and expose the limitations of existing transport systems.

Diaspora and family mobility create recurring cross-border movements, particularly between Italy and Albania. Institutional, business and professional travel contributes to year-round baseline demand, while medical transfers and civil protection activities generate permanent non-market demand.

The Action Plans consistently demonstrate that these demand patterns cannot be effectively served by conventional commercial aviation alone, particularly on thin or seasonal routes.

2.2 Common Challenges Identified by the Partners

Across the three Action Plans, the following shared challenges emerge:

- **Connectivity gaps** affecting remote, coastal, and inland territories;
- **High seasonality** of demand limiting commercial route sustainability;
- **Dependence on road and ferry transport**, causing long travel times and congestion;
- **Environmental pressures** in sensitive coastal and rural areas;
- **Emergency accessibility constraints**, particularly during peak tourism periods;
- **Fragmented planning** between aviation, tourism, emergency services, and regional development.

These challenges require a **joint, integrated and scalable response**, which is provided by this Joint Action Plan.

3. OBJECTIVES OF THE JOINT ACTION PLAN

3.1 General Objective

To establish a **shared cross-border model for sustainable and inclusive air connectivity** in the South Adriatic Area, harmonising planning frameworks, operational approaches and governance mechanisms among Italy (Apulia), Albania and Montenegro.

3.2 Specific Objectives

- Improve accessibility of remote and underserved areas;
- Enable sustainable short- and medium-range air routes;
- Reduce reliance on carbon-intensive road and maritime transport;
- Support emergency, medical and civil protection mobility;
- Pilot innovative air mobility solutions, including AAM;
- Strengthen cross-border institutional coordination;
- Create replicable governance and implementation models.

4. JOINT METHODOLOGICAL FRAMEWORK

The Joint Action Plan is built on a **shared methodology**, synthesising:

- Route feasibility and prioritisation matrices (Albania, Montenegro, Apulia);
- Accessibility and infrastructure mapping;
- Environmental and sustainability assessments;
- Testing and validation activities;
- Stakeholder consultations and B2B processes.

All routes and actions are evaluated against:

- market demand,
- infrastructure readiness,
- environmental impact,
- regulatory feasibility,
- cross-border relevance.

Rather than structuring routes along national lines, the Joint Action Plan adopts shared route typologies applicable across the South Adriatic Area.

Regional cross-border routes connect secondary airports and regional hubs, reducing reliance on long ferry-road chains. Light aviation routes connect inland and peripheral territories, particularly in Albania and Montenegro, with Apulia functioning as a western gateway. Coastal and island routes leverage seaplanes, helicopters and marinas to provide point-to-point connectivity. Emergency and SGEI routes ensure accessibility regardless of market conditions. Advanced Air Mobility routes are

introduced progressively as pilot applications.
This typology-based approach ensures coherence, flexibility and scalability.

5. LIST OF POSSIBLE MEANS FOR MAKING REMOTE AREAS MORE ACCESSIBLE IN THE SOUTH ADRIATIC AREA

5.1 Strategic Importance of Accessibility in the South Adriatic Area

Accessibility of remote and peripheral territories is identified by all project partners as one of the most critical challenges affecting the South Adriatic Area. Despite strong economic, social and cultural linkages between Apulia, Albania and Montenegro, significant parts of the territory remain difficult to reach due to geographical constraints, limited transport infrastructure, seasonal congestion and exposure to environmental risks.

The Action Plans consistently highlight that accessibility is not only a transport issue but also a determinant of territorial cohesion, social inclusion, economic competitiveness and safety. Remote inland municipalities, islands, mountainous zones and seasonal tourism destinations face long travel times, unreliable connections and limited access to essential services. These challenges are amplified during peak tourism seasons and in emergency situations.

Within this context, air mobility emerges as a strategic tool to overcome structural barriers and to ensure equitable access across the South Adriatic Area. Report 2 of the Joint Action Plan therefore focuses on identifying and structuring the possible means through which air connectivity can improve accessibility, using solutions that are realistic, scalable and aligned with sustainability objectives.

5.2 Typology of Remote and Peripheral Areas in the South Adriatic Area

Remote areas in the South Adriatic Area do not form a single homogeneous category. The Action Plans identify different types of territorial remoteness, each requiring tailored accessibility solutions.

Inland and mountainous territories represent one major category. In Albania and Montenegro, several inland regions are characterised by limited road infrastructure, low population density and long distances from major urban centres. Similar conditions exist in parts of Apulia's inland areas. These territories face daily accessibility challenges that affect residents' access to healthcare, education, employment and administrative services.

Islands and isolated coastal zones constitute a second category. The Tremiti Islands in Apulia and island-connected coastal destinations in Montenegro and Albania depend heavily on maritime transport, which is subject to weather conditions and seasonal capacity constraints. During adverse weather or peak demand periods, these territories may experience temporary isolation.

Seasonal tourism destinations form a third category. Coastal resorts, marinas and cultural destinations across all three territories experience dramatic fluctuations in population and mobility demand. While these areas may not be remote in absolute terms, congestion and capacity saturation during peak seasons create functional remoteness, particularly in terms of emergency access and service delivery.

A fourth category includes territories exposed to environmental and civil protection risks. Areas prone to wildfires, floods, landslides or seismic activity require rapid accessibility independent of ground transport conditions. The Action Plans underline that air mobility is often the only reliable solution in such contexts.

Recognising these different typologies allows the Joint Action Plan to define accessibility measures that are both targeted and complementary.

5.3 Principle of Using Existing Infrastructure as the Backbone of Accessibility

A shared principle across all Action Plans is the prioritisation of existing infrastructure as the foundation for improving accessibility. Rather than proposing extensive new construction, the Joint Action Plan builds on the extensive network of airports, secondary airfields, heliports, aviosurfaces and marinas already present in the South Adriatic Area.

Major airports in Apulia, Albania and Montenegro provide international access, regulatory anchoring and intermodal connectivity. However, accessibility of remote areas depends primarily on secondary and non-airport nodes. Small regional airports, light aviation airfields, hospital heliports, coastal helipads and marinas are therefore treated as strategic assets within the joint model.

This approach offers multiple advantages. It allows rapid activation of services, reduces environmental impact, limits investment costs and ensures compatibility with existing territorial planning frameworks. It also enables flexibility, as infrastructure can be adapted incrementally to changing demand patterns and technological developments.

5.4 Air Mobility Solutions for Inland and Rural Territories

For inland and rural territories, particularly in Albania and Montenegro, light aviation services represent a key accessibility solution. Small aircraft operating from secondary airfields or upgraded grass strips can connect remote municipalities with regional hubs in short travel times, overcoming geographical constraints and road infrastructure limitations.

These services are designed to operate with flexible schedules and low-frequency patterns aligned with actual demand. They are particularly suitable for connecting inland territories to gateway airports in Apulia, Albania and Montenegro, facilitating access to international networks without

requiring long road journeys.

In the joint framework, these routes are not treated as isolated national services but as components of a South Adriatic accessibility network. Apulia's airports function as western gateways, while Albanian and Montenegrin regional nodes extend accessibility eastward. This configuration enhances territorial cohesion across borders and supports balanced regional development.

5.5 Accessibility of Islands and Coastal Areas

Islands and coastal zones present specific accessibility challenges due to their dependence on maritime transport. The Action Plans highlight that ferry connections, while essential, are vulnerable to weather conditions and capacity constraints, particularly during peak seasons.

Air mobility solutions for these territories include helicopter services and seaplane operations. Helicopters provide year-round reliability and are indispensable for emergency and medical access. Seaplanes offer a complementary solution for passenger mobility, particularly in tourism contexts, enabling direct point-to-point connections between coastal destinations, marinas and islands.

Within the Joint Action Plan, island and coastal accessibility is addressed through a combination of scheduled, seasonal and on-demand services. These services are designed to integrate with existing maritime networks rather than replace them, providing redundancy and resilience in the overall transport system.

5.6 Accessibility for Seasonal Tourism Destinations

Seasonal tourism destinations across the South Adriatic Area experience extreme variations in mobility demand. During peak periods, congestion on roads and ports can significantly delay access to destinations and hinder emergency response capabilities.

Air mobility offers a flexible solution to these challenges. Seasonal air services can be activated during high-demand periods, connecting tourism hubs, resorts and marinas directly to regional airports. These services reduce pressure on ground and maritime infrastructure and improve the overall quality of mobility for visitors and residents alike.

Importantly, the Joint Action Plan emphasises that tourism-oriented air services must be carefully managed to ensure environmental sustainability and social acceptance. Limited frequencies, modern aircraft and coordination with local authorities are key elements of this approach.

5.7 Emergency, Medical and Civil Protection Accessibility

Emergency and medical accessibility is a central pillar of the joint model. All three Action Plans underline that air mobility is often the only means to ensure rapid response in critical situations, particularly in remote or congested areas.

Air ambulance services, medical transfers and disaster response operations are integrated into the accessibility framework. Helicopters and, in the future, Advanced Air Mobility solutions enable fast access to hospitals, evacuation of injured persons and delivery of medical supplies.

Civil protection operations, including wildfire monitoring, flood response and search-and-rescue missions, further reinforce the role of air mobility as a safety tool. The joint approach ensures that emergency accessibility is considered a structural public service, not a secondary function.

5.8 Progressive Introduction of Advanced Air Mobility for Accessibility

Advanced Air Mobility (AAM) is identified in the Action Plans as a medium- to long-term opportunity to enhance accessibility with lower environmental impact. In the Joint Action Plan, AAM is introduced progressively and pragmatically.

Initial applications focus on short-distance connections, medical logistics and pilot passenger services using existing heliports and marinas. These pilots allow testing of operational, regulatory and social acceptance aspects before broader deployment.

AAM does not replace existing air services but complements them, particularly in contexts where short distances, frequent demand and environmental sensitivity coincide.

5.9 Multimodal Integration as an Accessibility Multiplier

Accessibility improvements achieved through air mobility are maximised when integrated with other transport modes. The Joint Action Plan therefore emphasises multimodal integration as a core principle.

Air services are coordinated with road, maritime and public transport networks. Ports, marinas and tourist facilities function as intermodal nodes, enabling seamless transitions between modes. This integration enhances the effectiveness of air mobility solutions and ensures that accessibility benefits extend beyond the immediate vicinity of air nodes.

6.TESTING OF THE CROSS-BORDER MODEL FOR SUSTAINABLE AIR CONNECTIVITY SOUTH ADRIATIC AREA

6.1 Role of Testing within the Joint Action Plan

Testing represents a fundamental component of the Joint Action Plan, serving as the bridge between strategic planning and practical implementation. While Reports 1 and 2 define what should be implemented and why, Report 3 focuses on verifying how the proposed cross-border air connectivity model functions under real or simulated operational conditions.

All three partner Action Plans underline that sustainable air connectivity solutions must be grounded in evidence and validated through practical experimentation. Testing activities therefore play a dual role: they confirm the feasibility of proposed routes, services and governance arrangements, and they generate knowledge that informs refinement, scaling and potential replication of the model across the South Adriatic Area.

Within the Joint Action Plan, testing is not conceived as a one-off activity but as a continuous and iterative process, embedded throughout the lifecycle of the cross-border model.

6.2 Objectives of the Joint Testing Framework

The joint testing framework is designed to address several interrelated objectives. First, it aims to verify the operational feasibility of the proposed air routes and accessibility measures, ensuring that they can be implemented using existing infrastructure and realistic operational assumptions. Second, it seeks to assess the effectiveness of coordination mechanisms between partners, authorities and operators across borders. Third, it evaluates the suitability of different aircraft types and service configurations for the South Adriatic context. Finally, it supports the validation of innovation-driven solutions, including Advanced Air Mobility and drone-based applications, under controlled conditions.

These objectives are shared by all partners and reflect the common understanding that testing is essential for reducing uncertainty, managing risk and building institutional confidence.

6.3 Scope and Typology of Testing Activities

Testing activities within the Joint Action Plan cover a wide range of dimensions, reflecting the complexity of cross-border air connectivity.

Operational testing focuses on route simulations, scheduling scenarios, turnaround times and infrastructure readiness. These tests examine whether proposed routes can be operated safely, efficiently and reliably using the identified airports, heliports, marinas and secondary airfields.
Institutional and procedural testing examines coordination between authorities and stakeholders. This includes interaction between aviation authorities, airport operators, emergency services and tourism-related entities across borders. These tests assess the clarity of roles, communication flows and decision-making processes.

Emergency and civil protection testing evaluates the performance of air mobility solutions in critical situations. Scenarios include medical evacuations, disaster response and support to civil protection operations, particularly in remote or congested areas.

Innovation and technology testing focuses on the application of new solutions such as Advanced Air Mobility platforms and unmanned aerial systems. These tests explore technical feasibility,

regulatory compatibility and operational integration.

6.4 Operational Testing of Cross-Border Routes

Operational testing is carried out through simulations and pilot exercises that reflect realistic South Adriatic conditions. These activities examine how different route typologies perform in terms of travel time, reliability and integration with existing transport networks.

Cross-border routes connecting Apulia, Albania and Montenegro are tested to assess scheduling coordination, compatibility of operational procedures and potential bottlenecks. Seasonal scenarios are examined to understand how demand peaks affect capacity and service quality.

Operational testing confirms that flexible service models, such as seasonal operations and on-demand flights, are particularly suited to the South Adriatic context, where demand varies significantly over time.

6.5 Testing of Accessibility Solutions for Remote Areas

Accessibility-focused testing examines how air mobility solutions improve access to remote and peripheral territories. Simulations assess travel time reductions for inland areas, islands and congested coastal zones.

These tests demonstrate the added value of light aviation, helicopter and seaplane services in overcoming geographical constraints. They also confirm the importance of using existing infrastructure to ensure rapid deployment and cost efficiency.

Accessibility testing highlights that even low-frequency services can have a significant impact on territorial cohesion when strategically targeted.

6.6 Emergency and Medical Testing Scenarios

Emergency and medical testing scenarios are central to the joint framework. These scenarios examine how air mobility solutions perform under time-critical conditions, where reliability and coordination are paramount.

Simulated medical evacuations assess response times, coordination between dispatch centres and integration with hospital facilities. Civil protection scenarios examine aerial support for disaster response, including access to isolated areas and support to ground operations.

These tests confirm that air mobility is an indispensable component of safety and resilience in the South Adriatic Area and that cross-border cooperation enhances overall response capacity.

6.7 Testing of Advanced Air Mobility and Innovative Solutions

Advanced Air Mobility is tested through controlled pilot scenarios focusing on short-distance connectivity, medical logistics and environmental monitoring. These tests examine technical performance, operational integration and regulatory considerations.

By using existing heliports and marinas as initial nodes, AAM testing minimises infrastructure requirements while providing valuable insights into future deployment possibilities. Drone-based testing supports applications such as wildfire monitoring, infrastructure inspection and emergency assessment.

The testing outcomes demonstrate that innovation can be integrated progressively into the South Adriatic air connectivity model, provided that regulatory alignment and stakeholder engagement are ensured.

6.8 Cross-Border Coordination and Governance Testing

Testing also serves to validate governance and coordination arrangements. Joint exercises assess communication channels, data exchange mechanisms and decision-making processes among partners.

These activities highlight the importance of clear coordination structures and shared procedures, particularly in cross-border emergency scenarios. They also reinforce the role of institutional cooperation frameworks, such as the Memorandum of Understanding, in supporting coordinated action.

6.9 Lessons Learned and Model Refinement

Testing activities generate a range of lessons that inform refinement of the Joint Action Plan. Key findings include the importance of flexibility in service design, the value of incremental implementation and the need for continuous institutional dialogue.Feedback from testing confirms that the joint model is feasible and adaptable but requires careful phasing and coordination to maximise impact and sustainability.

7. JOINT MODEL FOR SUSTAINABLE AIR CONNECTIVITY

7.1 Integrated Route Typologies

The JAP identifies five joint route typologies, common to all partners:

1. **PSO** **Regional** **Routes**
   Short-haul scheduled services connecting secondary airports and regional hubs.

2. **Rural Light Aircraft Routes**
   Services using small aircraft to connect grass strips and small airfields.
3. **Seaplane and Marina-Based Routes**
   Point-to-point coastal and island connectivity.
4. **Helicopter and SGEI Routes**
   Emergency, medical, and accessibility-driven operations.
5. **Advanced Air Mobility (AAM) Routes**
   Future-oriented eVTOL and hybrid-electric services.

These typologies are consistently referenced in the three Action Plans and form the backbone of the joint model .

8. JOINT PRIORITY CROSS-BORDER ROUTES

Based on the consolidated prioritisation results, the JAP identifies **jointly validated cross-border routes**, including but not limited to:

- Vlora – Bari
- Vlora – Brindisi
- Tirana – Tivat
- Tirana – Brindisi
- Tirana – Podgorica
- Durrës Marina – Porto Montenegro
- Green Coast Resort – Porto Montenegro
- Tremiti Islands – Montenegro Coast

Each route is supported by:

- quantified demand estimates,
- operational cost models,
- PSO or user-pay logic,
- environmental impact assessments,
- regulatory feasibility analysis .

9. JOINT ACTIONS FOR ACCESSIBILITY OF REMOTE AREAS

9.1 Shared Accessibility Measures

The JAP consolidates national measures into joint actions:

- upgrading existing heliports and aviosurfaces;
- enabling seasonal mobile border controls at non-airport sites;

- integrating marinas and coastal resorts into air networks;
- improving hospital heliport authorisation and logistics;
- deploying demand-responsive services in rural areas.

10. ENVIRONMENTAL AND SUSTAINABILITY FRAMEWORK

10.1 Decarbonisation Strategy

The JAP aligns with:

- EU Green Deal objectives,
- gradual electrification of aviation,
- modal shift from road and ferry transport,
- adoption of hybrid-electric and eVTOL aircraft.

10.2 Environmental Monitoring and Protection

Joint actions include:

- drone-based monitoring,
- fire detection and response corridors,
- reduced congestion in protected areas,
- noise mitigation through modern aircraft.

11. GOVERNANCE AND COORDINATION STRUCTURE

11.1 Joint Governance Model

The JAP establishes:

- a tripartite coordination framework,
- harmonised planning procedures,
- shared testing protocols,
- data exchange mechanisms.

11.2 Role of the MoU

The Memorandum of Understanding formalises cooperation among the parties by regulating their collaboration within areas of mutual interest, supporting joint initiatives related to sustainable air transport, and facilitating exchange of knowledge and expertise under a shared coordination framework.

The MoU constitutes a key institutional component supporting the implementation of the Joint Action Plan. The MoU is explicitly identified as one of the planned actions of the project and is

designed to regulate collaboration among the project partners within their respective areas of activity and mutual interest.

Within the Joint Action Plan, the MoU does not function as an implementation contract or a binding operational agreement. Instead, it provides a formal cooperation framework that facilitates coordination, dialogue and exchange of knowledge among the partners involved in the development of the cross-border model for sustainable and inclusive air connectivity in the South Adriatic Area.

The MoU therefore complements the strategic and operational dimensions of the Joint Action Plan by anchoring them in an agreed institutional context.

12. IMPLEMENTATION ROADMAP

Phase 1 – Short Term

- Activation of priority PSO and SGEI routes;
- Testing of seaplane and helicopter corridors;
- Institutional harmonisation.

Phase 2 – Medium Term

- Expansion of cross-border seasonal routes;
- Pilot AAM services;
- Infrastructure upgrades.

Phase 3 – Long Term

- Full AAM corridor deployment;
- Integration into EU air mobility frameworks;
- Replication in other Adriatic regions.

13. CONTRIBUTION TO THE CROSS-BORDER MODEL

This Joint Action Plan **is the cross-border model itself**, as defined in the ON CLOUD NINE Application Form. It translates national analyses into a **shared operational framework**, enabling sustainable, inclusive and resilient air connectivity across the South Adriatic Area.

14. JOINT TERRITORIAL FRAMEWORK AND SYSTEMIC INTEGRATION

The Joint Action Plan is grounded in the recognition that the South Adriatic Area functions as a **single socio-economic and mobility system**, despite being divided by national borders. The Action Plans of Albania, Montenegro and Apulia consistently demonstrate that mobility patterns, tourism flows,

emergency needs and accessibility challenges transcend administrative boundaries and therefore require a coordinated response.

Apulia emerges as a structurally advanced aviation ecosystem, characterised by a coordinated airport network, a dense heliport system and a mature governance framework integrating civil protection, healthcare and emergency aviation.

Albania, by contrast, is characterised by strong growth dynamics in tourism and international mobility, coupled with significant gaps in short-haul and regional air connectivity, particularly for coastal and inland destinations.

Montenegro combines limited territorial size with high-value tourism demand, concentrated around coastal hubs and marinas, and presents favourable conditions for premium, flexible and innovative air mobility solutions.

The Joint Action Plan does not seek to homogenise these contexts. Instead, it builds a **functional integration model**, where the specific strengths and needs of each territory are combined into a coherent cross-border air mobility system.

15. JOINT NETWORK LOGIC AND CROSS-BORDER CONNECTIVITY MODEL

The national Action Plans identify numerous individual routes and measures. The added value of the Joint Action Plan lies in its transformation of these elements into a **network-based logic**, where routes are conceived as components of a shared system rather than isolated connections.

Within this logic, cross-border air connectivity is designed to operate through multiple complementary layers. Scheduled regional services address recurring mobility needs linked to tourism, diaspora and institutional travel. On-demand and seasonal services provide flexibility for fluctuating demand patterns. Emergency and public-interest routes ensure permanent accessibility and resilience, irrespective of market conditions. Advanced Air Mobility solutions progressively integrate innovation and sustainability into the system.

This layered approach ensures that connectivity is not dependent on a single operational or financial model, but rather on a combination of public service instruments, market mechanisms and innovation-driven pilots.

16. JOINT ROUTE STRUCTURE AND FUNCTIONAL CLUSTERS

Based on the comparative analysis and prioritisation matrices developed by the three partners, the Joint Action Plan consolidates the identified routes into a coherent cross-border structure.

Regional PSO routes form the backbone of the system. These routes connect secondary airports and

regional hubs across borders, addressing gaps that are not served by low-cost or network carriers. Examples include connections between Vlora and Bari or Brindisi, Tirana and Tivat, and Tirana and Brindisi. These routes respond to demonstrable demand but require public support or hybrid models in their initial phases.

Rural and peripheral routes extend accessibility to inland and underserved areas. Connections such as Kukës–Podgorica, Gjirokastra–Puglia and Korçë–Brindisi exemplify how light aircraft and flexible operations can overcome structural isolation and support territorial cohesion. These routes are emblematic of the social inclusion objectives embedded in the Action Plans.

Marina-based and seaplane routes represent a distinctive feature of the South Adriatic context. Connections between Durrës Marina, Vlora Marina, Porto Montenegro and the Tremiti Islands enable point-to-point coastal and island mobility, reduce pressure on congested road and ferry systems, and support high-value tourism segments. Their seasonal and on-demand nature allows them to remain economically and environmentally sustainable.

Emergency and SGEI corridors are treated as a structural layer of the network rather than ancillary services. Apulia's emergency aviation system, centred on Foggia, is functionally linked with Albania and Montenegro through coordinated medical evacuation, civil protection and disaster-response scenarios. These corridors ensure resilience and safety across the South Adriatic Area.

Finally, Advanced Air Mobility corridors are introduced as a forward-looking but concrete component of the Joint Action Plan. Routes such as Green Coast–Porto Montenegro and selected Apulia–Albania corridors serve as pilot environments for eVTOL and hybrid-electric aircraft, building on existing heliport and marina infrastructure and aligned with European regulatory developments.

17. JOINT INFRASTRUCTURE AND OPERATIONAL READINESS

A key principle shared by all three Action Plans is the prioritisation of **existing infrastructure** over new construction. The Joint Action Plan therefore focuses on airports, heliports, aviosurfaces, marinas and secondary landing sites already in operation or requiring limited upgrades.

Major airports such as Bari, Brindisi, Tirana and Tivat function as international gateways and regulatory anchors. Secondary airports, including Vlora, Kukës and Foggia, play a crucial role in decentralising connectivity and enabling PSO and SGEI operations. Grass airfields and light aviation facilities extend the reach of the system into rural territories.

Non-airport sites, such as marinas and resort helipads, are formally integrated into the joint model. The Action Plans acknowledge regulatory constraints related to border control at these sites. The Joint Action Plan addresses this through coordinated solutions, including seasonal mobile border controls, predefined clearance procedures and fallback routing via international airports where required.

This pragmatic approach allows cross-border connectivity to be activated rapidly while respecting existing legal and safety frameworks.

18. JOINT ENVIRONMENTAL AND SUSTAINABILITY FRAMEWORK

Sustainability in the Joint Action Plan is understood as a **systemic outcome**, not solely as a technological attribute of individual aircraft. The Action Plans consistently demonstrate that replacing long, indirect road and ferry journeys with short, direct air connections can generate net environmental benefits, particularly in terms of reduced congestion, time savings and pressure on sensitive ecosystems.

In the short term, sustainability is pursued through the use of efficient turboprops, modern helicopters and optimised operational models. In the medium term, hybrid-electric aircraft and electrified seaplane operations are introduced as they become technically and economically viable. In the long term, eVTOL and fully electric aircraft form the backbone of zero-emission point-to-point mobility.

Environmental protection is further strengthened through the use of drones and aerial monitoring systems for wildfire detection, hydrogeological risk assessment and environmental surveillance, particularly in Apulia and Montenegro. These functions reinforce the dual role of air mobility as both a transport and a resilience tool.

19. JOINT GOVERNANCE AND INSTITUTIONAL COORDINATION

The Joint Action Plan establishes a shared governance logic grounded in the institutional arrangements described in the national Action Plans. Rather than creating new structures, it builds on existing authorities and coordination mechanisms.

Apulia's integrated emergency governance model provides a reference framework for cross-sector coordination. Albania's experience with PSO planning and regulatory alignment contributes to the structuring of subsidised routes. Montenegro's coordination between tourism authorities, airports and marina operators informs the governance of premium and seasonal services.

The Memorandum of Understanding formalises cooperation among the parties by regulating collaboration within their respective areas of activity and mutual interest, supporting joint initiatives for sustainable air transport, promoting ONCLOUDNINE+ outputs, and facilitating exchange of knowledge and expertise through networking activities, under the coordination of a Joint Committee.

20. JOINT IMPLEMENTATION AND SCALING STRATEGY

Implementation of the Joint Action Plan follows a phased logic that allows for gradual activation, testing and scaling of routes and services.

In the initial phase, priority PSO and SGEI routes are activated, existing infrastructure is optimised and governance mechanisms are consolidated. The intermediate phase expands seasonal and cross-border services, integrates seaplane and marina-based operations and launches initial AAM pilots. The long-term phase consolidates the AAM network, expands electric aviation and embeds the South Adriatic connectivity model into broader European transport and innovation frameworks.

Testing activities are embedded throughout all phases. Operational simulations, emergency scenarios and cross-border coordination exercises provide continuous feedback, allowing the Joint Action Plan to evolve dynamically while remaining grounded in real-world conditions.

21. MEMORANDUM OF UNDERSTANDING AS AN INSTITUTIONAL SUPPORT TOOL

21.1 Legal and Institutional Nature of the MoU

The MoU signed within the framework of the ON CLOUD NINE+ project is a cooperation agreement that regulates the collaborative relationship between the project partners without generating financial obligations or legally binding commitments beyond those expressly stated. The MoU is grounded in the shared objective of promoting sustainable and inclusive air connectivity in the South Adriatic Area and supports the development and dissemination of the project's main output, namely the model for more sustainable and inclusive air connectivity.

The MoU explicitly recognises the ON CLOUD NINE+ project as its operational context and confirms that the agreement represents one of the planned project actions. As such, it complements the Joint Action Plan by providing a formalised cooperation setting that enhances coordination and mutual understanding among the signatories.

The purpose of the MoU is to regulate collaboration among the parties in areas of mutual interest, with a specific focus on promoting sustainable approaches to air transport development. The MoU establishes a shared intention to benefit from synergies, know-how and reciprocal experience derived from the ON CLOUD NINE project.

The objectives defined in the MoU include supporting joint initiatives aimed at encouraging sustainable air transport, promoting the project and its outputs within relevant networks and communities, and facilitating the exchange of knowledge and expertise through networking and exchange activities.

These objectives are fully consistent with the strategic goals of the Joint Action Plan and reinforce its cross-border dimension without introducing additional obligations beyond those explicitly stated in the agreement.

21.2 Parties Involved and Scope of Cooperation

The MoU is signed by the following entities:

- Airports of Puglia S.p.A., acting as Lead Partner of the ON CLOUD NINE+ project;
- Albanian Civil Aviation Authority, acting as Project Partner;
- Airports of Montenegro JSC, acting as Project Partner.

These entities represent the institutional and operational pillars of air transport governance in their respective territories. Through the MoU, they acknowledge the shared challenges and opportunities related to air connectivity in the South Adriatic Area and express their intention to cooperate within the framework of the project.

The territorial scope of the MoU covers the entire South Adriatic Area, reflecting the cross-border nature of the Joint Action Plan. Cooperation under the MoU is not limited to bilateral interactions but is conceived as a trilateral framework supporting joint reflection and coordination across Italy (Apulia), Albania and Montenegro.

The scope of cooperation defined by the MoU focuses on activities of mutual interest within the respective institutional mandates of the parties. Cooperation is oriented towards supporting joint initiatives in the field of sustainable air transport development, promoting the results and outputs of the ON CLOUD NINE+ project within relevant professional and institutional networks, and facilitating exchanges of knowledge and expertise.

The MoU does not introduce new operational obligations but reinforces voluntary collaboration aimed at maximising the impact and visibility of the Joint Action Plan and its associated actions.

21.3 Governance and Coordination Mechanism

In order to ensure coordinated implementation of the cooperation foreseen by the MoU, a Joint Committee is established. The Committee is composed of one representative from each signatory party and operates without additional financial costs.

The responsibilities of the Joint Committee include monitoring the progress of activities derived from the MoU, identifying additional areas of common interest that may benefit from cooperation, and supporting the exchange of experiences and knowledge as envisaged by the agreement. The Committee meets periodically, with frequency and modalities defined by mutual agreement among the parties.

This governance structure supports the Joint Action Plan by providing a stable and lightweight

coordination mechanism, aligned with the non-binding and facilitative nature of the MoU.

21.4 Resources, Intellectual Property and Data Protection

The MoU explicitly states that it does not entail financial burdens for the signatory parties. Each party may provide support for activities falling within its competence, subject to internal availability and institutional planning.

All intellectual property rights related to documents, materials and other outputs shared within the framework of the MoU remain with the originating party. The agreement safeguards ownership rights and requires each party to take appropriate measures to protect its intellectual property.

The MoU also establishes compliance with applicable European and national legislation on personal data protection, including Regulation (EU) 2016/679 (GDPR), ensuring that any data processed within the cooperation framework is handled lawfully and responsibly.

21.5 Contribution of the MoU to the Joint Action Plan

Within the Joint Action Plan, the MoU serves as an enabling instrument that reinforces cooperation, coordination and continuity among the partners. It provides an institutional reference point for joint reflection, dissemination of results and identification of future cooperation opportunities related to sustainable air connectivity in the South Adriatic Area.

While the Joint Action Plan defines strategic directions and operational pathways, the MoU ensures that collaboration among the partners is structured, transparent and aligned with the shared objectives of the ON CLOUD NINE+ project.

22. CONCLUSIONS

This Joint Action Plan is the concrete embodiment of the cross-border model for sustainable and inclusive air connectivity envisaged by the ON CLOUD NINE project. It transforms three national Action Plans into a single operational framework, capable of addressing accessibility, sustainability, resilience and innovation in a coherent and coordinated manner.

The Joint Action Plan for the South Adriatic Area represents the **fully consolidated cross-border model for sustainable and inclusive air connectivity** developed within the ON CLOUD NINE project. Structured into four integrated reports, the Plan brings together economic feasibility, territorial accessibility, operational validation and institutional cooperation into a single coherent framework. Report 1 establishes business-oriented implementation frameworks for cross-border air routes, ensuring economic viability and alignment with public service objectives. Report 2 identifies concrete means for improving accessibility of remote and peripheral areas, addressing social inclusion, territorial cohesion and safety. Report 3 validates the model through testing activities, providing evidence-based confirmation of feasibility and adaptability. Report 4 anchors the model institutionally through the signing of the Memorandum of Understanding.

Together, these components form a robust and realistic roadmap for enhancing air connectivity in the South Adriatic Area. The Joint Action Plan is entirely grounded in the Action Plans and MoU developed by the project partners and reflects a shared commitment to sustainable, inclusive and resilient mobility.

By integrating public service routes, market-based services and advanced air mobility within a shared governance and sustainability framework, the Joint Action Plan positions the South Adriatic Area as a reference region for next-generation regional air connectivity.