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Strategic Integration of Fundamental Rights & EU Values in Sustainable Transportation

Resilience through Innovation and Sustainability

4th Transnational Meeting, Fano, Italy

SUSTAINABLE MOBILITY AS A CATALYST FOR RESILIENT COMMUNITIES



- ✓ RTIS Identity: A new generation European organisation developing actionable resilience strategies at the intersection of sustainability, innovation, and social equity
- ✓ Our Fundamental Principle: Accessible transportation enables exercise of basic rights - education, healthcare, employment, and civic participation
- ✓ Strategic Approach: Integrating disaster risk reduction, climate adaptation, and social inclusion into mobility planning
- ✓ EU Alignment: Our work directly supports the European Green Deal and EU Climate Adaptation Strategy through practical, scalable solutions

FUNDAMENTAL RIGHTS IN ACTION - GREENMOVE CONTEXT

Accessibility & Non-Discrimination as Resilience Measures

Universal Design as Standard:

- ▶ All new transport infrastructure incorporates universal design principles
- ▶ Emergency evacuation planning integrated with accessible transport routes
- ▶ Multi-sensory wayfinding systems for diverse abilities

Social Protection through Mobility:

- ▶ Crisis-responsive transport systems for vulnerable populations
- ▶ Subsidized mobility solutions for climate-affected communities
- ▶ Gender-responsive transport planning addressing safety concerns

Geographical Equity:

- ▶ Island-specific solutions addressing unique isolation challenges
- ▶ Emergency transport guarantees for remote communities
- ▶ Resilient infrastructure connecting high-risk areas to safe zones

EMBEDDING EU VALUES IN RESILIENCE-CENTERED TRANSPORTATION



Sustainability, Inclusion & Innovation Framework

Climate-Resilient Sustainability:

- ✓ Infrastructure designed for climate adaptation and mitigation
- ✓ Renewable energy integration in transport systems
- ✓ Nature-based solutions for transport route protection

Social Inclusion as Resilience:

- ✓ Participatory resilience planning with marginalized communities
- ✓ "Leave No One Behind" principle in climate adaptation transport
- ✓ Cross-generational knowledge transfer in mobility planning

Innovation for Resilience:

- ✓ Digital twins for climate risk assessment in transport planning
- ✓ AI-powered emergency routing systems
- ✓ Smart infrastructure monitoring for rapid disaster response

ALIGNING LOCAL RESILIENCE WITH EU PRINCIPLES



Challenge Area	Resilience-Specific Challenges	RTIS Mitigation Strategies
Financial	High costs for climate-resilient infrastructure	Blended finance models; EU resilience funds utilization
Technical	Lack of expertise in climate-adaptive design	Capacity building; knowledge transfer programs
Institutional	Fragmented disaster and transport governance	Integrated emergency-transport coordination frameworks
Social	Ensuring equity in climate adaptation benefits	Targeted vulnerability assessments; inclusive planning

CULTURAL & HISTORICAL INTEGRATION IN RESILIENCE PLANNING



Context-Sensitive Climate-Adaptive Mobility

Heritage-Compatible Resilience:

- ▶ Protection of historical sites through sustainable transport routing
- ▶ Traditional knowledge integration in climate adaptation planning
- ▶ Cultural heritage preservation in disaster-responsive mobility

Cultural Resilience Programming:

- ▶ Mobility services supporting cultural continuity during crises
- ▶ Traditional evacuation routes integrated with modern systems
- ▶ Indigenous knowledge in climate-resilient transport planning.

ENGAGING THE ECOSYSTEM: A MULTIPLIER MEASURING RESILIENCE IMPACT & RIGHTS PROTECTION



Monitoring Framework for Climate-Adaptive Mobility

- **Resilience Impact Metrics:**

- Accessibility maintenance during and after extreme weather events
- Service continuity metrics across climate scenarios
- Vulnerability reduction indicators for at-risk populations

- **Environmental Resilience Metrics:**

- Infrastructure climate adaptation capacity scores
- Carbon resilience combining mitigation and adaptation benefits
- Ecosystem services protection through transport planning

- **Rights Protection Metrics:**

- Fundamental rights access during crisis situations
- Equity in climate adaptation benefits distribution
- Community participation in resilience planning

BEST PRACTICES FOR RESILIENCE-CENTERED MOBILITY

Transferable Models for European Regions



Climate-Resilient Governance Model:

- ▶ Integrated climate and transport planning committees
- ▶ Community-based early warning mobility systems
- ▶ Transparent decision-making in disaster risk reduction

Holistic Resilience Planning:

- ▶ Integrated land use, transport, and climate adaptation planning
- ▶ Health resilience integration in transport projects
- ▶ Multi-hazard risk assessment in all infrastructure

Innovation for Resilience:

- ▶ Digital platforms for crisis mobility management
- ▶ Real-time adaptive routing for extreme weather
- ▶ Open data policies enabling resilience innovation



INTERNATIONAL COOPERATION - ENHANCING RESILIENCE IMPACT



Strategic GreenMove Collaboration Opportunities

Knowledge Transfer for Resilience:

- ▶ Shared climate adaptation frameworks for transport
- ▶ Best practice database on rights-based resilience mobility
- ▶ Expert exchange programs focusing on climate adaptation

Joint Resilience Initiatives:

- ▶ Common position on climate-resilient mobility in EU policy
- ▶ Resource pooling for climate adaptation pilot projects
- ▶ Shared research on gender-responsive resilience planning

Technical Resilience Collaboration:

- ▶ Interoperable solutions for cross-border emergency mobility
- ▶ Common standards for climate-resilient accessibility
- ▶ Joint development of digital resilience tools



COMPARATIVE RESILIENCE PERSPECTIVES



Initiative Type	Example Location	Rights & Resilience Dimension
Flood-Resilient Mobility	Netherlands, Rhine Delta	Elevated transport infrastructure protecting access during flooding
Wildfire Response Routes	Greece, Attica Region	Protected evacuation corridors ensuring safe escape routes
Climate-Adaptive Public Transport	Copenhagen, Denmark	Heat-resistant infrastructure maintaining service during extreme heat



FUTURE VISION - NEXT-GENERATION RESILIENCE MOBILITY



Digital Resilience Transformation:

- ▶ AI-enabled climate risk assessment for transport planning
- ▶ Predictive analytics for disaster-responsive service allocation
 - ▶ Digital twins for climate-resilient infrastructure design

Policy Evolution for Resilience:

- ▶ Climate resilience impact assessment for all transport projects
 - ▶ Mandatory adaptation standards in procurement
 - ▶ Integrated EU funding for climate-resilient mobility



Community Resilience Empowerment:

- ▶ Community-led climate adaptation mobility services
 - ▶ Participatory disaster risk reduction planning
- ▶ Resilience education integrated with mobility access

CONCLUSION - KEY RESILIENCE MESSAGES

- ▶ **Core Principle:** Climate-resilient transportation protects fundamental rights during environmental crises
- ▶ **Strategic Imperative:** Integrating climate adaptation, social equity, and innovation creates sustainable and secure mobility systems
- ▶ **Collaborative Opportunity:** GreenMove partnership provides unique platform to advance climate-resilient mobility across Europe
- ▶ **RTIS Commitment:** Leading the integration of resilience thinking into sustainable transportation planning



THANK YOU

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