

NEWSLETTER



Word of the editor

Dear Climate Community,

In our first newsletter, we would like to bring to your attention the HARMONMISSIONS project, which is dedicated to Climate-oriented EU Missions in the Danube Region.

We believe that also through the recently launched platforms, the project will bring more opportunities and provide valuable information for you. Our newsletters will regularly share updates about the HARMONMISSIONS project, our activities and planned events.

Additionally, you will find information about other Climate-oriented projects. We will also publish in newsletters articles on the latest updates regarding Climate EU Missions 1 and 4.

The first issue of the newsletter focuses on EU Mission 1: Adaptation to Climate Change. We hope you find the information provided here useful and that it benefits you.

**Slovak Centre of Scientific
and Technical Information**

● Announcements

This January a dedicated website was launched, accessible via:

www.harmonmissions.eu

It shall serve 3 project platforms that were recently launched – A platform for sharing lessons learned at the regional level (SHARED), a European Mission Observatory (EMO), and a Platform for sharing best practices toward Climate City Contract (CCC). The website's functionality also allows to navigate through events pertaining to those 3 project platforms.

UPCOMING EVENTS

The “Research Alliances for Climate-Neutral, Sustainable, and Equitable Urban Communities” conference will take place in Rome on **February 26–28, 2025**. Organized by CNR-IMAA, ENEA, and UERA, the event will bring together experts to discuss urban sustainability, focusing on topics such as smart cities, renewable energy, and circular economies

Conference agenda and registration:

<https://dutpartnership.eu/conference-sustainable-and-climate-neutral-cities/>

Author: Slovak Organization for Research and Development Activities

Collaborative strategies for addressing climate change to facilitate shared adaptation

Climate change poses intricate challenges that necessitate comprehensive responses. The European Union's initiative on climate change adaptation exemplifies this principle by providing a framework for regions and communities to develop adaptive strategies that are specifically designed to address their distinct vulnerabilities and strengths. The objective is to alleviate the negative effects of climate change while enhancing societal resilience and promoting sustainable development. This initiative emphasizes the importance of merging scientific knowledge with practical solutions. By fostering collaboration among public, private, and civil sectors, it guarantees that adaptation efforts are both effective and inclusive. The initiative encompasses a wide array of projects, including renewable energy systems, urban greening, advanced water management technologies, and robust policy frameworks, demonstrating a diverse yet interconnected approach to resilience. This article outlines eleven exemplary best practices gathered within the Harmonmissions project, showcasing shared methodologies and innovative actions across the Danube regions. The combination of technology, community involvement, and governance can significantly advance climate adaptation initiatives, transcending geographical and disciplinary boundaries.

The study of adaptation

Case studies demonstrate a diverse range of methodologies that underscore the scientific and practical ingenuity necessary for effective adaptation. Initiatives in renewable energy exemplify the application of resource optimization techniques. By harnessing biogas and solar energy, these projects employ sophisticated energy conversion systems and lifecycle assessments aimed at minimizing waste and improving efficiency, which are vital for sustainable energy transitions. Urban greening initiatives rely significantly on ecological modeling and environmental engineering. Their execution combines soil science with urban planning, while nature-based solutions incorporate biodiversity assessments and participatory design methods. These approaches highlight the importance of interdisciplinary science in creating adaptable and multifunctional urban spaces. Cross-border collaborations leverage advanced technologies, including artificial intelligence and geospatial data integration. These advancements facilitate real-time monitoring and management of water resources across national boundaries, emphasizing the need for coordinated data protocols and shared technological frameworks. Such strategies enhance ecological resilience and foster regional cooperation through collective scientific efforts and goals.

Employing renewable energy systems

A significant range of initiatives is focused on promoting the use of renewable energy sources, with the objective of reducing greenhouse gas emissions and enhancing energy efficiency. In Zrenjanin, Serbia, biogas facilities exemplify this approach by converting waste into electricity and usable heat, thus providing a dual-purpose solution that fosters community trust. Similarly, Prnjavor, Bosnia and Herzegovina, showcases the substantial advantages of solar energy, as local enterprises spearhead investments in photovoltaic systems that contribute to both economic growth and environmental sustainability. Furthermore, the knowledge center in Čakovec, Croatia, supports this movement by integrating renewable energy into urban redevelopment, transforming a brownfield site into a hub of innovation and efficiency.

Efforts aimed at enhancing urban green spaces and fostering nature-based innovations

A prominent theme is the adoption of urban greening and nature-based solutions. Košice, Slovakia, has embraced innovative systems designed to alleviate heat islands and enhance biodiversity in public spaces.

Maribor, Slovenia, builds upon this approach by incorporating urban forests, green corridors, and innovative soil production methods, addressing urban heat while fostering community involvement. Furthermore, the orchards in Lučenec add a unique aspect by combining biodiversity with environmental education, illustrating the extensive possibilities of greening initiatives.

Administration and supervision of cross-border water resources

Water-related challenges represent a critical area of focus. The project in Montenegro, Bosnia and Herzegovina, and Croatia employs artificial intelligence and geospatial data to improve the oversight of water quality and foster collaboration across borders. These efforts underscore the importance of technology and cooperation in mitigating the impacts of climate change on vital water resources, while simultaneously promoting regional solidarity.

Approaches for enhancing urban resilience and facilitating recovery in the aftermath of disasters

One additional area of emphasis is the promotion of green reconstruction and the enhancement of resilience. In Bucha, Ukraine, the concept of "build back better" is being applied to support recovery from conflict, prioritizing sustainability in the reconstruction process. Concurrently, in Bratislava, Slovakia, a project is focused on bolstering urban resilience by integrating green and blue infrastructure, while also utilizing microclimate data to tailor solutions to specific vulnerabilities. These efforts underscore the potential of climate adaptation to act as a fundamental element in broader societal recovery and revitalization.

Advancements in policy and governance

Policy-oriented strategies hold considerable importance in this context. Bulgaria's national forestry strategy addresses the issue of illegal logging while promoting carbon sequestration through enhanced governance and policy alignment. Romania's initiative exemplifies inter-ministerial collaboration, aligning urban decarbonization efforts with climate neutrality objectives. These examples highlight the critical role of strong institutional frameworks in broadening local successes to meet regional and global goals.

Acquired knowledge and future directions

The outlined best practices underscore the diverse strategies essential for effective climate adaptation. A crucial element contributing to their success is the integration of advanced technologies, such as AI-driven monitoring systems, in conjunction with efforts to involve local communities. These collaborative methods illustrate that a variety of approaches, aligned by common goals, significantly enhance the effectiveness of climate resilience initiatives. Recurring themes include the combination of technological advancements with nature-based solutions, the vital importance of community engagement, and the necessary backing from financial and policy frameworks. These themes manifest in various ways across different projects. For example, AI-augmented water quality monitoring contrasts with initiatives aimed at local greening and community involvement. Similarly, innovations in urban planning highlight the connection between infrastructure and biodiversity, while other strategies emphasize education and proactive community participation. The variations among these practices underscore the importance of tailoring approaches to address specific environmental and social contexts, offering valuable insights into the adaptive capabilities of different methodologies. However, challenges remain, particularly in scaling successful initiatives and ensuring equitable access to resources.

Striving for a resilient Europe

Collaboration across different regions and sectors is increasingly acknowledged as a crucial factor, as evidenced by initiatives that unite multiple nations to address transboundary water quality challenges. Similarly, the decarbonization hub illustrates how effective coordination among ministries can align urban development plans with climate neutrality goals. The European Union's mission on climate change adaptation provides a thorough framework for tackling the varied impacts of global warming. By organizing innovative projects into thematic clusters, it becomes evident that key principles such as technology integration, community engagement, and strong governance are essential for achieving success. The best practices reviewed here demonstrate how local initiatives, when aligned with broader regional strategies, can lead to significant transformative outcomes.



Figure: The Bratislava-Karlova Ves initiative sought to strengthen residential resilience against climate change, decrease carbon emissions, enhance public areas through environmentally sustainable projects, and increase public awareness among citizens. Source: DELIVER Project (2018 – 2023).

Author: Applied Research and Communications Fund

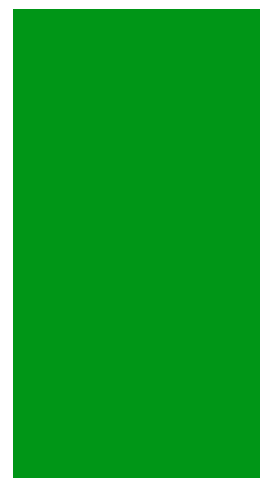
EU Mission 1 in Horizon Europe: Expert Opinions on the Mission

The first mission of the European Union - Adaptation to Climate Change - is one of two missions centered on climate neutrality and its achievement. Aiming to help at least 150 European regions to become climate resilient by 2030, the necessity of this initiative is apparent: environmental degradation, deforestation, water shortages, temperature increases and biodiversity loss are dangerous to public health, food security and social equality. Such potential consequences render Europe-wide measures a sole solution against climate change.

First devised in 2019, the implementation of the Adaptation to Climate Change mission is enabled through the engagement of local institutional actors across Europe, consistent R&I support and citizen participation. Today, the mission is supported by an implementation platform, numerous projects, guides and manuals, forums, and over 300 signatories throughout Europe.

Taking into consideration the sheer magnitude of the initiative, experts are open about the mission's significance. As the climate crisis grows ever more concerning, EU involvement becomes a necessity. Environmental degradation does not recognise national borders, and attempts to combat it must span across the entire continent, in a coordinated, synchronised effort. Moreover, the sharing and codevelopment of science are inarguably more effective on a larger scale. Simply put, there is little local authorities can do on their own under current conditions. Europe's regions are diverse, with individual needs, challenges and degrees of vulnerability. Yet rather than serve as a promotion of individualised action, this heterogeneity is used by experts to infer that the only viable solution is a mutually supportive, multifaceted approach: just resilience, in the terms of the European Commission.

This, of course, requires knowledge, cooperation, coordination, funding and expertise - to be developed simultaneously on several scales. While various institutional, technical and financial challenges are recognised, the willing participation of hundreds of European local authorities proves indeed what expert opinion suggests: barriers must be overcome collectively, and all voices must be heard.



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The NATURED Project

co-funded by the European Union through the Interreg IPA ADRION programme

The Adriatic-Ionian region is Europe's unique biodiversity, with diverse ecosystems. It shares common vulnerabilities and in previous years it has become a real hot spot for climate change. Consequences, such as floods, droughts, landslides, storms and wildfires, are evident and have become increasingly frequent, impacting vulnerable communities, that require collective efforts and joint actions. As climate change effects transcend geopolitical boundaries, the transnational approach is crucial.

NATURED brings together 12 partners and 3 associate partners from 9 ADRION region countries, including regional and local policy responsible authorities, supported by development agencies and higher education and research institutions to work on development and implementation of Nature-based Solution in their area. NATURED project aims to empower policymakers and stakeholders to prevent the effects of climate change on urban areas, particularly flash floods, and urban heat islands.

The project seeks to promote a just, safe, inclusive and placed-based resilience approach, anchored in a series of interlinked activities, which include understanding the interactions between climate and cities, creating databases and digital maps for climate vulnerability and hazards in different urban zones, and engaging citizens and stakeholders to define action plans for Nature-based Solutions (NbS). These solutions will be tested in pilot actions and subsequently integrated into the public work plans of cities, with the ultimate goal of replicating the most effective solutions on a wider scale.



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IPA ADRION

NATURED

**NATURE-BASED
SOLUTIONS FOR A JUST
RESILIENCE IN THE
ADRIATIC-IONIAN CITIES**

The NATURED Project

NATURED Partnership:

LP: Unione della Romagna Faentina (Italy)

PP2: Consortium for coordination of Research Activities concerning the Venice Lagoon system – CORILA (Italy)

PP3: Regional Development Agency of Northern Primorska L.t.d. Nova Gorica (Slovenia)

PP4: Public institution RERA S.D. for coordination and development of Split-Dalmatia County – (Croatia)

PP5: Region of Thessaly (Greece)

PP6: International University of Sarajevo (Bosnia and Herzegovina)

PP7: Regional Agency for Socio – Economic Development – Banat Ltd (Serbia)

PP8: Regional Development Agency South (Serbia)

PP9: Old Royal Capital Cetinje (Montenegro)

PP10: Municipality of Tirana (Albania)

PP11: Municipality of Gostivar (North Macedonia)

PP12: City of Banja Luka (Bosnia and Herzegovina)

ASP1: Municipality of Larissa (Greece)

ASP2: City of Zrenjanin (Serbia)

ASP3: Municipality of Nova Gorica (Slovenia)

Project budget: 1.269.913,13 €
INTERREG funding: 1.079.426,13 €
Project duration: 30 months
(1.7.2024 – 31.12.2026)