ESP Newsletter – Winter 2021

Dear EUSAIR colleagues,

We invite you to take a look to the Winter Newsletter on Green Infrastructures in the Adriatic-Ionian region.

Yours,

EUSAIR Stakeholders Platform

GREEN INFRASTRUCTURE

I. ABOUT GREEN INFRASTRUCTURE

By Green Infrastructure (GI) the EU refers to the network of natural and semi-natural areas - such as green spaces, coastal and maritime areas - designed and managed to deliver a wide range of ecosystem services. The GI improves the quality of our environment, and consequently of our health and quality of life. It sustains a green economy and the creation of job opportunities.

GI is therefore inextricably linked to the concept of ecosystem services, which can be defined as the benefits that flow from nature to people. A few examples of ecosystem services might include better air quality, water purification, space for leisure, mitigation and adaptation to climate change,

and biodiversity protection in rural and urban areas. Natural ecosystems have the first and foremost advantage of providing different ecosystem services simultaneously, offering benefits for both citizens and biodiversity. Their multifunctionality is what distinguishes them from grey or man-made infrastructure.

Although the definition of green infrastructure is quite new, the concept is rooted in studies that began in the second half of the 19th century with an aim to protect nature. In more recent years, the concept has been widely analysed by Mark Benedict and Edward McMahon in "Green Infrastructure. Linking landscapes and communities", published in 2006. Their work, that examines land use and protection in the United States, has been pioneristic for the circulation of the idea and its linkage to the benefits for people and communities.

The concept of green infrastructure incorporates that of blue infrastructure, and their combination may also be referred to as blue-green infrastructure. The development of green and blue corridors, which integrate coastal, maritime and inland habitats and species, is a unique opportunity to allow a sustainable connection of core areas. As highlighted in the Handbook for Recognising and Planning Green Infrastructure launched by the Slovenian Presidency of EUSAIR in 2021, green and blue corridors and functional links on land and waters allow the migration of organisms and the transfer of materials and energies between single green infrastructural elements and core areas. Moreover, conservation strategies such as the planning of green or blue corridors have the beneficial effect of maintaining or restoring connectivity between habitat patches that were united before man-driven interventions.

"The improvement of the functionality and moderate usage in green and blue corridors areas, together with core areas and other GI elements, **increase the inventory and diversity of ecosystem services** (fishery, marine fish farming), which as such form a well preserved GI", *Handbook for Recognising and Planning Green Infrastructure*

Last but not least, a crucial aspect of green infrastructure is that it helps reduce the dependence on so-called grey infrastructure, which may be harmful to the environment and biodiversity as well as expensive. Nowadays, environmental conditions and habitat preservation are even more endangered by climate change, and this is only one of the reasons why the shift from grey to green infrastructure, or at least a better integration of the two, should be promoted at all levels.

II. EUSAIR AND GREEN INFRASTRUCTURE

The Adriatic and Ionian region has a considerable level of biodiversity and significant natural landscapes. Considering how many natural areas in the regions are divided by political borders, it is clear that EUSAIR can play a central role in facilitating cross-border cooperation to deliver ecosystem services. EUSAIR countries show the importance of cooperating and connecting maritime, coastal and terrestrial issues.

The third EUSAIR Pillar, Environmental Quality, is clearly connected to green infrastructure and the development of green and blue corridors. This is why EUSAIR may have an important role to play in the alignment of non-EU countries to EU *acquis* and policies in the field of protection of nature and biodiversity. Moreover, with every country working on an equal footing, it can stimulate all countries to join in the fight against climate change and pollution. In the new EU programming period 2021-2027 there will be numerous funding opportunities in the field of natural conservation, environmental protection and green connectivity for both member and non member states in the macro-region. For the latter, one of the five objectives of the pre-accession instrument IPA III concerns reinforcing environmental protection, increasing resilience to climate change, accelerating the shift towards a low-carbon economy and developing the digital economy and society. Moreover, the EU Green Deal is reflected in non-EU countries with the Green Agenda for the Western Balkans, which foresees actions related to decarbonisation, depollution, biodiversity protection and restoration of ecosystems.

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The challenge that EUSAIR may win is to coordinate all available funds and the initiatives undertaken among EU member and non-member states so as to achieve the defined goals.

The EU Environment Partnership Programme for Accession (EPPA) is financed and promoted by the European Commission, specifically DG Environment, to support the Western Balkans in the understanding and alignment to EU nature and biodiversity policies, including the EU Strategy on Green Infrastructure. In 2020, EPPA directly contributed to some EUSAIR activities under the framework of its work programme in the area of nature protection and biodiversity.

The joint activities included the regional workshop on "Green Infrastructure and Ecological Connectivity" that took place on 24-25 June 2020 via live video conference. The workshop gathered actors involved in various capacities in the development of green infrastructure in the macro-region: authorities, representatives of environment protection agencies, civil society, and EU Delegations. The workshop was the occasion to present the results of the study developed by EPPA "Green infrastructure deployment and ecological connectivity status in Albania, Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia", and provided a forum for discussion on future actions.

"EUSAIR seeks to bring together environment and sustainable development in the Adriatic and Ionian region with blue and green corridors" - **Mitja Bricelj, TSG3 co-coordinator**, stated during the workshop - "in addition, EUSAIR sought synergies between all its pillars. The result has been a high consensus level in the Strategy's governance producing four priority projects from the environmental pillar. The projects deal with transboundary Integrated Coastal Zone Planning and Marine Spatial Planning. EUSAIR is doing its best to recognise the problems and pressures in the region and to take that into account in its planning, as well as policy developments like the EU Green Deal", concluded Bricelj.

Giuseppe Di Paola, programme manager at DG Regio and coordinator of EUSAIR, added that "the recent inclusion of North Macedonia is important to the strategy in the implementation of the terrestrial component of its ambitions. This provides two ecological areas for intervention: the Adriatic and Ionian Seas and the mountainous, inland forested areas, creating an approach that considers green and blue corridors. The second element is the extension of EUSAIR's scope to become a tool to facilitate enlargement. The implementation of EU environmental policies is a key element to that process, and it will be central in the new programming period".

The workshop helped identify possible actions to address green infrastructure and connectivity gaps in the macro-region, including the willingness to strengthen regional cooperation and establish a regional working group to improve transboundary cooperation, the support to the development of Natura 2000 network, the mapping of ecosystem services at regional level and the need to strengthen the capacity of national authorities to enforce nature conservation legislation and comply with the environmental standards with regard to infrastructure projects.

III. AN INTERVIEW WITH SENAD OPRAŠIĆ, CO-COORDINATOR OF THE THIRD EUSAIR THEMATIC STEERING GROUP

What synergies are already in place between EUSAIR and EU nature and biodiversity policies such as the EU Strategy on Green Infrastructure or the EU

Biodiversity Strategy? What will be the next steps?

EUSAIR already addresses blue and green corridors, especially the blue ones. The EU Council recognises the introduction of the concept of blue corridors as a measure to improve the functional connectivity of ecological networks and to ensure sustainable fishing and navigation in marine ecoregions. The Council decision regarding the inclusion of blue corridors in the EU Sustainable blue economy was agreed upon in May 2021. The next steps are to introduce this concept in the Marine and Terrestrial Planning at national and local levels.

Dr. Senad Oprasic

We, as EUSAIR Pillar 3 Environmental Quality (TSG3), developed important tools within several projects like the EUSAIR Facility Point, ECO-SMART, PORTODIMARE, etc.. Next month we will also launch the EUSAIR Learning Channel which is based on the manual for the identification and planning of green infrastructure that was launched during Slovenia's presidency of EUSAIR last year.

Thanks to the approach devoted to the integration of coastal, maritime and inland habitats, EUSAIR is a key regional forum. Are there projects that integrate green and blue infrastructure? Does the EUSAIR foresee accelerating the process of declaration of new marine protected areas, which will bring benefits to coastal communities?

TSG3, in the best spirit of truly European partnership, organised the 6th Mediterranean Coast and Macro-regional Strategies Week 2021, for the first time jointly hosted by the Republic of North Macedonia, the youngest EUSAIR participating country, and by the Republic of Slovenia. During the event we presented the urgent need for action about the protection of the marine environment. In line with the Biodiversity Strategy of EU 2030 and Natura 2000, the Adriatic Sea should have 30% of protected areas and 10% of strictly protected areas. As of now, it has only 3.57% of protected and 0.07% of strictly protected areas. Within the EUSAIR Facility Point-Interreg ADRION project, TSG3 is preparing the Study on legal basis for cross-border proclamation of marine protected areas which will represent the concrete implementation of blue and green corridors in the Adriatic and Ionian Sea. With this we would like to raise awareness in the national governments that protected areas are urgently needed in order to preserve the traditional fishing and Mediterranean lifestyle. Biodiversity brings 50% of GDP in the EU (Biodiversity Strategy 2030), so it is also an important economic category.

What links can you find between EUSAIR pillars and green infrastructure? Is green infrastructure in contrast with grey infrastructures implied in some of the pillars and how can this contrast be overcome? How to integrate them?

The integration of the concept further strengthens all four pillars. With the implementation of the green infrastructure concept in planning, sustainable tourism goals are actually pursued, the environment is improved and blue growth is enabled. As green infrastructure, especially corridors, does not end at national borders, the introduction of this concept inevitably implies integration between countries and the whole macro-region. The already mentioned Green Infrastructure Handbook and the EUSAIR Learning Channel are important products for raising awareness of the importance of green infrastructure and its harmonisation with other spatial services provided by grey infrastructures. Here it is important to stress that improving green infrastructure (i.e. more green natural areas) is not just a cost, but in the long run it is a benefit that improves the supply of healthy food and drinking water, reduces energy consumption and is a good roadmap for an unpredictable future. At the same time, they present different approaches and promote successful practices to date. All of this is a good guide for the next steps and challenges.

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What role can the green infrastructure approach play in combating pollution in the macro-region?

GI addresses and implements nature-based solutions that provide many ecosystem services, including balancing and maintenance services, nutrient retention and self-cleaning. Its role is primarily in raising the environment's resistance to pollution and much faster environmental recovery.

Which flagship projects approved last year contribute more to the concept of green infrastructure?

The best answer to EUSAIR's needs in term of Green infrastructure and Biodiversity Strategy goal 2030 is the ICZM & MSP EUSAIR Flagship, which brings together the goal of Integrated Maritime Spatial planning of all EUSAIR countries and the inclusion of marine protected areas in the centre of this process. The other flagships, which are available on the EUSAIR website, deal with the Transnational Contingency Plan in the event of accidents at sea; monitoring and management of marine protected areas in order to foster the process of protecting MPAs once they are established, and connect them. Last but not least is the Flagship Protection and enhancement of natural habitats and terrestrial ecosystems. All four flagships are important and two of them are

directly connected with marine protected areas. The next one has to include safety elements of green infrastructure to be safe in sustainable management of the Corridors.

Green infrastructures have both a bottom-up and a top-down approach to harmonise local, national and macro-regional objectives. Is EUSAIR the right place where these needs can meet?

Of course. EUSAIR, as a macro-regional strategy, includes macro-regional (European) objectives as well as national and local objectives and needs. Next year we plan to enhance the promotion of our tool through capacity-building events. Thus we will teach the planners at national and local level to use our tool in order to respond to environmental challenges and needs. The tool will respond to the demands of the young population, that is raising the political dimension of the environment and biodiversity of our planet, in EUSAIR and in the world.

IV. NATURA 2000

Natura 2000 is an ecological network of nature conservation areas that spans across all EU member states. With a coverage of over 18% of European land and over 8% of European marine territory, it is considered the backbone of the EU's green infrastructure.

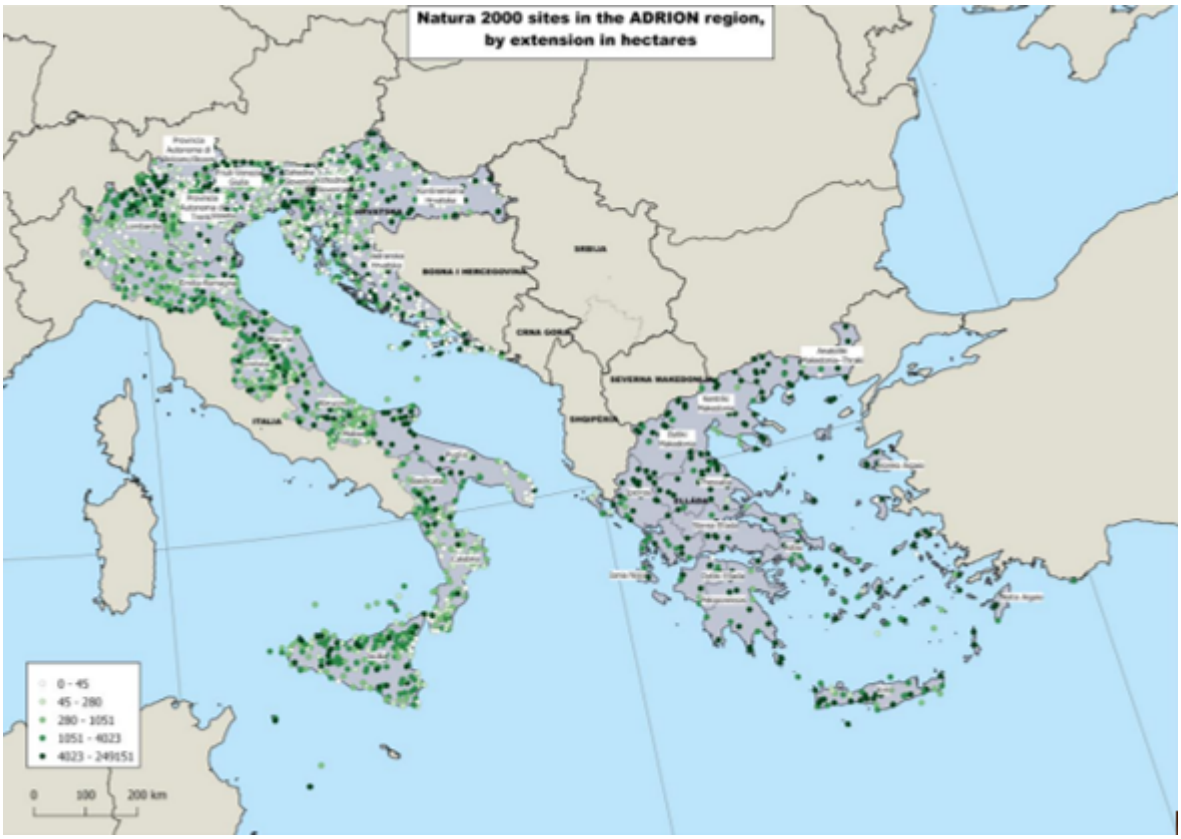
It is based on the Birds (1979) and Habitats Directives (1992), commonly referred to as the *nature directives,* which make up the cornerstone of Europe's legislation on biodiversity and nature protection. Their major objective is to protect, maintain and restore endangered animal and plant species and habitat types to a favourable conservation status. To this aim, the directives identify nine biogeographical regions, each with its own characteristics in terms of vegetation, climate, topography and geology.

The aim of Natura 2000 is to ensure the long-term survival of Europe's most valuable and threatened species identified by the nature directives. Natura 2000 was originally established to fulfil the obligations under the Bern Convention on the Conservation of European Wildlife and Natural Habitats adopted by the Council of Europe and ratified by the EU in 1982. According to the Bern Convention, contracting parties should establish a network of areas of special conservation interest (ASCIs), better known as the Emerald network. The creation of Natura 2000 can thus be regarded as the EU's initial contribution to this pan-European network.

Within the areas covered by Natura 2000, member states must avoid any activity that could «significantly disturb the protected species, deteriorate their habitats or damage habitat types». To this aim, member states must carry out appropriate assessments of any programme, project or activity that may impact Natura 2000 sites. Besides providing proper implementation of the ecological network, the directives also call on member states to incentivise educational and informational activities on biodiversity and nature protection.

Natura 2000 is the largest coordinated network of protected areas in the world, but its functioning presents some shortcomings. As Mr. Nicholas Hanley rightly pointed out during the regional workshop on Green Infrastructure and Ecological Connectivity, the Natura 2000 network is still fragmented and this puts the sustainability of its conservation and protection efforts at risk.

There are 3,027 NATURA 2000 sites located in the EU member states with a total area of 117,993 square kilometres and 1,338 natural protected areas in the non-member states in the Adriatic and Ionian region with a total area of 16,894 square kilometres (ADRION Territorial Analysis 2020).



Source: Natura 2000 database (2020), OBCT elaboration

These data highlight that the share of protected areas is much larger among EU member states than in candidate and potential candidate countries from the Western Balkans, suggesting that there may be a significantly different approach in the designation and management of protected areas. In this regard, the EU integration process can be an important asset to improve the system of biodiversity protection in the WB.

As part of the reform process that Western Balkan countries have to undertake towards European integration, they have to adopt and implement EU environmental norms and standards, which are covered by chapter 27 of the *acquis communautaire*. All WB countries have already started to transpose EU environmental law into their national law, including the nature directives for the creation of Natura 2000.

Natura 2000 in the non-EU countries of the macro-region

(Data taken from the regional workshop on Green Infrastructure and Ecological Connectivity)

Albania

Nature degradation and biodiversity loss are two major concerns in Albania.

Protected areas today cover around 18.5% of Albanian territory. Over the years, several projects have helped increase the capacities of Albanian institutions to prepare for the implementation of Natura 2000 and raise public awareness about nature protection. However, there is still a lack of scientific, technical and administrative capacities, public engagement and adequate long-term funding which hampers the effective work on Natura 2000.

Bosnia and Herzegovina

In BiH the establishment of Natura 2000 is regulated by the Law on Nature Protection of the Federation and by a Government Decree of the Federation, and by the Law on Nature protection of Repblika Srpska, as well as in Brčko District of Bosnia and Herzegovina.

A project implemented from 2012 to 2015 identified 122 potential Natura 2000 sites which would cover around 18.6% of the country (3 sites in Brčko District, 58 sites in the Federation of Bosnia and Herzegovina and 61 sites in the Republika Srpska).

Montenegro

Today, 13.5% of the Montenegrin territory is covered by the network of protected areas. The work on Natura 2000, which started with the IPA project "Establishment of Natura 2000 network", still faces serious challenges, including uncontrolled urbanisation, exploitation of natural resources (illegal hunting or over-harvesting) and the growing impact of climate change. Strengthening management capacities, developing a stronger science-based policy approach, raising public awareness and engaging nature users in biodiversity protection will be essential to ensure the proper implementation of the nature directives.

North Macedonia

Protected areas currently cover around 8.9% of the Macedonian territory. The country is working on the establishment of the National Emerald Network and is planning to designate Emerald protected areas covering around 29% of the territory. The activities carried out to implement the Emerald Network and the connected capacities will help North Macedonia prepare for the implementation of the nature directives and the related Natura 2000 network.

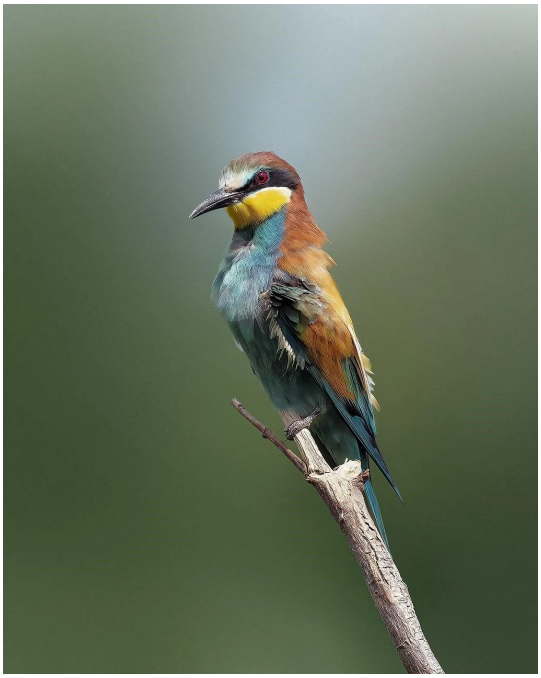
Serbia

The current ecological network in Serbia includes 101 protected areas. As Serbia continues to work towards the implementation of the nature directives, it is paramount for the country to strengthen the collaboration among stakeholders at different levels and

increase public participation in nature and biodiversity protection, strengthen institutional and administratives capacities, mobilise adequate financial resources and foster enhanced cooperation at the regional level.

V. THE EU STRATEGY ON GREEN INFRASTRUCTURE AND RECENT DEVELOPMENTS

The EU Strategy on Green Infrastructure was launched in 2013 as an important part of the EU 2020 Biodiversity Strategy. The aim of the strategy on GI was to tackle threats to biodiversity related to habitat fragmentation and to enable ecosystems to deliver their services to people and nature. The strategy did not only promote the deployment of green infrastructure across Europe, but also fostered the development of a Trans-European Network for Green Infrastructure, a kind of TEN-G similar to the existing networks for energy and for transport (TEN-E and TEN-T).



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Almost ten years later, the EU has reinforced the promotion of nature-based green and blue infrastructure to ensure that they become part of the territorial development and spatial planning strategies. The new Biodiversity Strategy for 2030 is a comprehensive and ambitious plan for protecting nature and reversing the degradation of ecosystems. The new strategy aims to build European resilience to climate change, forest fires, food insecurity and disease outbreaks, including by protecting wildlife. The new strategy is a core part of the European Green Deal and is particularly connected to one of its core elements, “Preserving and restoring ecosystems and biodiversity”.

VI. A FEW EXAMPLES OF PROJECTS RELATED TO GREEN INFRASTRUCTURE AND ECOSYSTEM SERVICES

EUSAIR FLAGSHIPS

In June 2020, EUSAIR Governing Board identified several flagship projects as its priorities for the programming period 2021-2027. One of them, which comes under Pillar 3 - Environmental Quality, is "Protection and Enhancement of Natural Terrestrial Habitats and Ecosystems". The flagship is aimed at protecting natural terrestrial habitats and ecosystems, with a particular attention to the ecological connectivity of green and blue corridors to improve the resilience of large carnivore populations at a transnational level. The activities to be undertaken are therefore related to conservation and restoration of large carnivore populations, public awareness activities and restoration of ecosystems.

DINALPCONNECT

The project DINALPCONNECT - transboundary ecological connectivity of Alps and Dinaric Mountains, funded by the ADRION programme, started in 2020 and will be implemented until 2022. The project involves 11 partners from 7 countries participating in EUSAIR (Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, Slovenia). It aims at strengthening transnational cooperation to improve ecological connectivity between the Dinaric Mountains and the Alps and to create transboundary linkages between Natura 2000 sites and protected areas in non-EU countries. The output of the project will be a *Strategy for ecological connectivity throughout Dinaric Mountains connecting them with the Alps* which will be adopted by policymakers.

IMPRECO

Between 2018 and 2020, the ADRION project IMPRECO (Common strategies and best practices to IMprove the transnational PRotection of ECOsystem integrity and services) contributed to the protection of biodiversity in the macro-region. Its main objective was to enhance the safeguarding of ecosystem services and strengthen the potential of protected areas through their transnational networking. Assuming that human pressure is undermining the health of ecosystem services, the project aimed at restoring ecosystem services' functionality and integrating them in local development plans. The project established a transnational network of public administrations and local stakeholders and developed a common strategy for ecosystem services management and conservation. The project involved partners from Albania, Croatia, Greece, Italy and Slovenia.

VII. THE BIGGER PICTURE: IMPLEMENTATION OF ECO-

INNOVATIONS AND CIRCULAR ECONOMY IS THE BASIS FOR THE DEVELOPMENT OF ENVIRONMENTAL PROJECTS

Experts from the Lomonosov Institute in Koper (Slovenia), dr. Mitja Ruzzier, dr. Jana Hojnik and dr. Maja Konečnik Ruzzier, prepared an extensive study aimed at preparing the basis for further planning of activities to promote eco-innovations and elements of the circular economy within the flagships of the TSG3 pillar of the EUSAIR strategy.

Mag. Iztok Škerlič

The study, commissioned by the Public Agency for Entrepreneurship and Development Projects of the Municipality of Izola (JZP Izola) – EUSAIR Facility Point, contains an analysis of best practices in the EUSAIR member states, sources of the EU co-financing and numerous proposals for eco-innovations and the circular economy. According to mag. **Iztok Škerlič, director of JZP Izola**, the study acts as an excellent starting point for further activities in the field of placing both concepts in each of the four EUSAIR TSG3 flagships – Monitoring and management of protected marine species, Transnational contingency plan in the event of accidents at sea, Sustainable development of coastal and marine zones, and Protection and expansion of natural habitats and terrestrial ecosystems.

Eco-innovation is key in changing patterns of behaviour, products, processes, marketing methods or organizational processes, while the circular economy is a model of industrial ecology that proposes concrete solutions to achieve sustainable lifestyles and environmentally friendly economies (most widely used in the "reduce, recycle, reuse" concepts). In this regard, the study examined in detail five examples of best practices, two from Slovenia (Toring Turbine, Clera.One) and one each from Greece (Enaleia), Croatia (Agena Marin) and Italy (Northern Light Composites). These are examples of innovative use of technology or technological processes, sustainable materials and raising awareness of various publics in the field of nautical and sustainable water use.

The study, co-financed by the EUSAIR Interreg ADRION Facility Point project, analysed 98 European projects between 2014 and 2020 related to environmental quality, of which 21 were projects covering the monitoring and management of protected areas and marine species (€ 931 million invested), 38 projects for sustainable coastal and marine development (€ 494 million invested), 30 projects for the protection and enhancement of natural habitats and terrestrial ecosystems (€ 128 million invested) and 9 projects for a

transnational contingency plan in in the event of accidents at sea (€ 27 million invested). Among all of them, there were 27 projects (28%) with elements of eco-innovation and / or the circular economy, while the EU sources of co-financing were Interreg (50 projects), Horizon (32 projects) and Life (16 projects).

Among the proposals for promoting eco-innovations and the circular economy under the environmental quality pillar within the EUSAIR strategy, Lomonosov Institute experts included more active use of existing EU instruments, more active consumer involvement as key categories for promoting eco-innovations and circular economy business practices, and regional EKO-INNOVATION-LIVING-LABs, which would carry out and coordinate educational and research activities on the one hand, and be moderators in regional stakeholder networks outside academic institutions. Their key activities would be the role of a Think-tank, the development and maintenance of a digital repository of business practices on the circular economy and implemented eco-innovation in the region, the organization of events and other activities related to sustainable development. Other possible proposals include the development of interdisciplinary educational study programs at postgraduate levels aimed at managing sustainable development, summer business schools, the inclusion of experts as guest lecturers in undergraduate study programs, several public tenders on eco-innovations and the circular economy and many others.

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