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Characterization of the 29 Bilateral Projects under the EEA Grants Environment Programme

INTER-CAREER MOBILITY REPORT

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Framework and Purpose of the Report

This report is prepared within the context of the inter-career mobility process of Tiago Jordão Pereira Cardoso, technical assistant at the General Secretariat, appointed to perform duties as a Senior Technician in the Foresight and Planning Services (SPP), within the EEA Grants Programme.

The Foresight and Planning Services (SPP) play a strategic role in defining objectives and formulating public policies in the Ministry of Environment and Climate Action. Their work focuses on prospective analysis and monitoring of political, economic, social, demographic, and technological trends, ensuring coordination and information sharing among the various bodies of the Ministry. Furthermore, they collaborate with other entities in the design and implementation of environmental, territorial, and sustainability strategies, promoting the production of statistical data and strategic indicators to support political and strategic decision-making.

Bilateral partnerships refer to direct cooperation between institutions in Portugal and donor countries (Norway, Iceland, and Liechtenstein) in the implementation of projects funded by the EEA Grants. These partnerships are fundamental to ensuring the transfer of technical and scientific knowledge, facilitating the adoption of environmental best practices, and enabling the implementation of innovative solutions.

The bilateral partners within the scope of the EEA Grants Environment Programme encompass various entities, including governmental bodies, particularly in the environmental sector, educational and research institutions such as universities and research centres, non-governmental organizations (NGOs) dedicated to the environment and sustainability, as well as companies and sectoral associations specializing in the development of environmental technologies and solutions.

The participation of these partners is essential to fostering international cooperation and ensuring the exchange of knowledge and innovative methodologies, guaranteeing that each funded project benefits from an integrated and multidisciplinary approach. In this context, the purpose of this document is to provide a detailed characterization of the 29 bilateral projects funded by the EEA Grants Environment Programme, analyzing their geographical distribution, outlined strategic objectives, environmental and social impact, as well as the role of international partnerships in the implementation of the initiatives, highlighting the relevance of these collaborations for the success and sustainability of the projects.

Executive Summary

This report analyzes the 29 bilateral projects funded by the EEA Grants Environment Programme, which fostered strategic partnerships between Portuguese entities and 29 donor country institutions (25 from Norway and 4 from Iceland). Implemented across various regions in Portugal, these projects addressed biodiversity, climate adaptation, water management, and the transition to a low-carbon economy, ensuring knowledge transfer, professional capacity building, and the delivery of innovative and replicable solutions.

International cooperation was crucial to the success of these initiatives, drawing on the consolidated experience of institutions such as International Development Norway (IDN) in environmental management and climate adaptation, the University of Bergen in environmental monitoring and biodiversity conservation, and the SINTEF Foundation in the development of sustainable energy solutions. At the municipal level, KS – the Norwegian Association of Local and Regional Authorities – and Trondheim Kommune contributed to environmental governance strategies, smart cities, and sustainable energy communities. From Iceland, the Icelandic National Commission for UNESCO stood out in promoting sustainable tourism, and Icelandic New Energy contributed to sustainable mobility and energy transition.

The projects were regionally distributed based on prior territorial diagnoses that identified environmental vulnerabilities and priorities adapted to the ecological and socioeconomic context of each region. In the North and Centre, they focused on biodiversity, reforestation, and water management, strengthening ecosystem resilience. In Lisbon and the Tagus Valley, energy efficiency, sustainable mobility, and urban management were prioritized, in response to high population density and the need for decarbonization. In Alentejo and Algarve, actions addressed desertification mitigation, water scarcity, and soil degradation, promoting innovative water management solutions. In the Autonomous Regions, the projects focused on climate adaptation and protection of island ecosystems, due to their high ecological sensitivity and exposure to extreme weather events. This regional approach ensured effective interventions aligned with the specific environmental challenges of each territory.

The adoption of innovative technologies was a key element, integrating digital platforms for environmental monitoring, sustainable energy communities, and advanced water reuse systems. Simultaneously, participatory methodologies were applied in the management of biodiversity and protected areas, promoting more effective and inclusive environmental governance.

Total funding reached €29 million, with an execution rate above 96%, reflecting efficiency in resource utilization. National and international co-financing ensured long-term sustainability, strengthening Portugal's capacity to implement environmental policies aligned with the Sustainable Development Goals and the European Union's climate targets.

Keywords: Bilateral Cooperation; Environmental Sustainability; Water Management; Energy Transition; Biodiversity and Climate Adaptation

Introduction

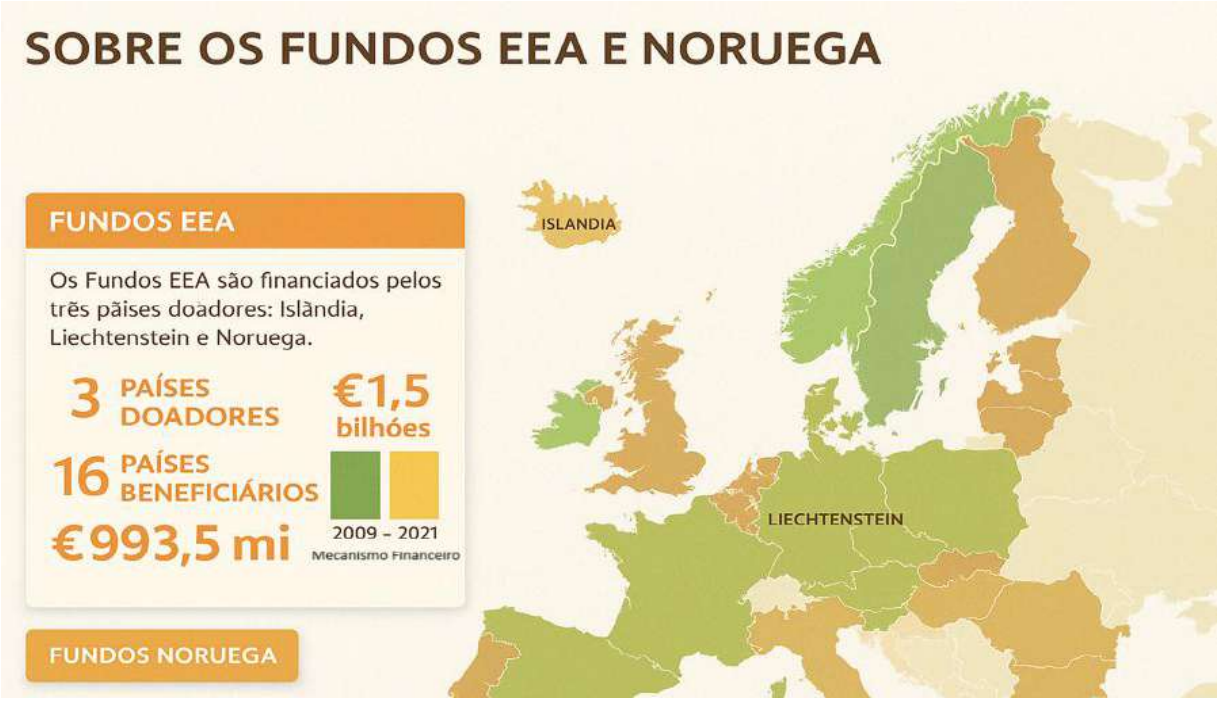
Context of the EEA Grants and the Environment Programme

The EEA Grants constitute a financial mechanism established under the Agreement on the European Economic Area (EEA), of which Iceland, Liechtenstein, and Norway are members. This financial mechanism was created with the objective of reducing economic and social disparities among the beneficiary states and strengthening bilateral cooperation between the donor countries and the European Union member states. The commitment undertaken by the donor countries is based on the premise that the stability and sustainable development of Europe are fundamental to collective prosperity, which is why they have been financing projects in various strategic areas, including environmental sustainability and climate change mitigation.

In the case of Portugal, the Environment Programme of the EEA Grants plays an essential role in promoting a transition towards a sustainable development model, focused on climate resilience, the circular economy, and biodiversity conservation. This programme has enabled the financing and implementation of innovative initiatives that aim to address critical environmental challenges, such as ecosystem degradation, the impacts of climate change, and the need for efficient management of natural resources.

In order to enhance the impact of the funded initiatives, the Environment Programme promotes strategic bilateral partnerships between Portuguese entities and institutions from the donor countries. These partnerships are essential to ensure the transfer of technical and scientific knowledge, as well as to foster innovation and the experimentation of new environmental solutions. The exchange of experiences between different European contexts has proven to be fundamental for the development of effective and replicable approaches to environmental management.

Within this context, the present report aims to deepen the analysis of the 29 bilateral partnerships established under the Environment Programme, exploring their geographical distribution, the objectives of the collaborations, and the financial and environmental impacts that have resulted from them.



Objectives of the Report

The main objective of this report is to analyse the quality, nature, and impact of the bilateral partnerships established within the framework of the projects funded by the Environment Programme of the EEA Grants 2014–2021. In this context, a detailed characterization of the collaborations between Portuguese entities and institutions from the donor countries is developed, with a particular focus on identifying institutional profiles, mechanisms of technical cooperation, and the distinct contributions of each partner throughout the implementation of the projects.

The aim is also to highlight the concrete results achieved, as well as the multiplying and structuring effects of these partnerships on institutional capacity building, technical innovation, and the promotion

of best practices in the field of environmental sustainability. More than a mere description of the implemented projects, this study seeks to address the following key questions:

How were the bilateral partnerships structured, and what was their impact on the implementation of the projects?

What were the main challenges faced, and what best practices were identified?

In what ways did the international partnership contribute to innovation and improvements in environmental management in Portugal?

What lessons can be drawn from this experience for future collaborations and environmental funding policies?

Furthermore, this report aims to contribute to a critical evaluation of the efficiency of the bilateral cooperation model, allowing for the identification of best practices and opportunities for improvement. To this end, an in-depth analysis of qualitative and quantitative indicators will be carried out, considering the economic, social, and environmental impacts of the analysed projects.

In this way, it is expected that this study will serve as a useful tool for policymakers, environmental programme managers, and researchers, helping to support future strategies within the scope of the EEA Grants and other international partnership mechanisms.

Data Collection and Analysis Methodology

The first phase of the study involved documentary analysis of official sources, including the Bilateral Relations Fund (FBR) Procedures Manual, which defines guidelines for the implementation of partnerships and fund management; the bilateral project implementation reports, detailing objectives, activities, and results; Annexes 1, which specify the roles of international partners; and the official publications of EEA Grants Portugal, which provide an overall view of the programme's impact.

To assess financial efficiency and sustainability, the amounts allocated, execution rates, and the impact of investments were analysed, identifying best practices in resource management.

The study of representative cases allowed for a deeper understanding of the dynamics of the partnerships and the challenges of implementation, focusing on knowledge transfer and innovation.

In addition, a survey will be conducted among project promoters, including Portuguese entities and donor country partners, to gather perceptions on the benefits and challenges of bilateral partnerships and suggestions for future collaborations.

Finally, the interpretation of the data resulted in the systematization of the main benefits of cooperation, challenges encountered, and recommendations for future EEA Grants initiatives.

Structure of the Report

This report is structured to provide a systematic and in-depth analysis of the 29 bilateral projects funded by the Environment Programme of the EEA Grants, with a particular focus on the quality of the partnerships established between Portuguese entities and Norwegian and Icelandic partners. The structure was designed to allow for a fluid and progressive reading, guiding the reader from the contextualization of the programme to the analysis of impacts and future recommendations.

The report begins with an Executive Summary, which synthesizes the main findings and conclusions of the analysis, providing an overview of the bilateral partnerships, environmental and financial impacts, and identified best practices.

This is followed by introductory sections, which establish the conceptual and methodological framework of the study. The Context of the EEA Grants and the Environment Programme presents the functioning and objectives of the funding mechanism, while the Objectives of the Report define the key questions guiding the analysis. The Data Collection and Analysis Methodology section describes the procedures used to collect, process, and interpret the information, ensuring the rigor and objectivity of the results.

The substantive analysis of the report begins with the section on the importance of international partnership in the Environment Programme, highlighting the role of the donor countries (Norway and Iceland) and their partner entities. Subsequently, the overall results of the Environment Programme are presented, both in financial terms and in relation to the physical and environmental impacts achieved.

The section Characterization of Bilateral Projects deepens the analysis of project selection criteria, geographical and sectoral distribution, as well as the main areas of intervention. This section also highlights the profiles of the promoting and partner entities, with particular attention to the role played by Norwegian and Icelandic partners.

Next is the section Bilateral Partnerships and the Role of International Partners, which analyses the benefits of transnational cooperation, the dynamics of collaboration, and the specific contributions of international partners. The impact of the partnerships is assessed across various dimensions, including territorial impact (benefited regions and communities), environmental and technological impact, impact on capacity building and skills development, and the sustainability of projects after funding ends.

The section Financial Results and Budget Execution examines the amounts of funding allocated, financial execution rates, national and international co-financing, as well as the main financial challenges and opportunities faced by the projects.

The analysis of project outcomes and impacts is complemented by a survey of project promoters, allowing for the collection of direct perceptions regarding the challenges and benefits of bilateral partnerships. This section includes the definition of the survey objectives, the application methodology, the analysis of results, and the recommendations based on the responses obtained.

The report concludes with a systematization of the main conclusions and recommendations, summarizing the most relevant aspects identified throughout the analysis and presenting proposals for future editions of the Environment Programme and for strengthening international partnerships under the EEA Grants.

The adopted structure aims to ensure clarity, coherence, and depth in the analysis, facilitating understanding of the impacts of the Environment Programme and enabling the results to inform future decisions on public policy and environmental funding.

Importance of International Partnership in the Environment Programme

International partnership has played a decisive role in the Environment Programme of the EEA Grants, enabling the integration of best practices, innovative technologies, and advanced methodologies in responding to environmental challenges. Through the partnership between Portuguese entities and organisations from the donor countries – Norway and Iceland – the programme has promoted the transfer of technical and scientific knowledge, strengthening the institutional and technical capacity of the beneficiary entities.

The importance of this international partnership is evident in three fundamental dimensions. First, it enables the exchange of experiences and innovative solutions in the sustainable management of natural resources. The donor countries have a well-established track record of advanced environmental policies, and their participation in the projects funded by the EEA Grants has been essential for raising environmental standards and fostering innovation in Portugal.

Second, cooperation ensures greater efficiency in project implementation, allowing for more rigorous monitoring of results and promoting the replication of successful models in other territorial contexts. Finally, the involvement of international partners reinforces the political and institutional dimension of environmental sustainability, contributing to Portugal's integration into European networks for innovation and climate research.

Partner Entities from Donor Countries (Norway, Iceland, and Liechtenstein).

The projects funded by the EEA Grants Environment Programme benefited from collaboration with various Norwegian and Icelandic entities specialized in environmental sustainability, technological innovation, and climate policy. These institutions operated in strategic areas ranging from environmental monitoring to energy transition and biodiversity conservation.

• From Norway, the following stand out:

International Development Norway (IDN) – technical assistance in environmental management and climate adaptation.

University of Bergen – support in ecosystem monitoring and biodiversity conservation.

KS – Norwegian Association of Local and Regional Authorities – capacity building for Portuguese municipalities in the implementation of innovative environmental policies.

SINTEF Foundation – development of technological solutions for renewable energy and energy efficiency.

Trondheim Kommune – sharing of best practices in the management of energy communities and the implementation of smart city solutions.

• From Iceland, the following stand out:

Icelandic National Commission for UNESCO – design of sustainable tourism roadmaps and environmental certification.

University of Iceland – development of climate adaptation models and sustainable management of natural resources.

Icelandic New Energy – support for sustainable mobility and transition to clean energy.

Landvernd – The Icelandic Environment Association – promotion of biodiversity preservation and implementation of sustainable ecological practices.

These partnerships were fundamental to ensuring that the projects not only met the funding criteria but were also capable of generating positive and lasting impacts. The involvement of international experts enabled the projects to be developed based on best practices and the most advanced innovations available globally, strengthening Portugal's capacity to respond to environmental challenges.

• In the case of Liechtenstein, there are no partnerships at the level of approved or bilateral projects.

Overall Results of the Environment Programme (Financial and Physical)

The EEA Grants Environment Programme has demonstrated significant impact both in the financial execution of the projects and in the tangible results achieved on the ground. With an execution rate of over 96% of the approved budget, this funding enabled the implementation of structural environmental solutions, reinforcing the technical and operational capacity of the entities involved.

Investments were directed toward infrastructure modernization, technical capacity building, technological innovation, and environmental conservation, ensuring that interventions not only addressed environmental challenges but also created a more efficient and sustainable management model. The programme's results can be analysed from two main perspectives: financial impacts and physical and operational impacts.

Financial Impacts

The funding provided by the Environment Programme resulted in the effective distribution of resources, optimizing investment to maximize socio-economic and environmental benefits. One of the most relevant case studies is the National Roadmap for Adaptation 2100 project, with a total budget of €1,300,000.00, of which €400,000 was funded by the EEA Grants, with the Norwegian Directorate for Civil Protection and Emergency Planning as partner.

Funds were allocated to the development of digital tools, scientific studies, technical capacity building, and stakeholder engagement, ensuring broad impact. The cost-benefit analysis of the interventions showed that investment in climate adaptation significantly reduces the costs associated with extreme events, preventing financial impacts that would far exceed the initial implementation costs.

Physical and Operational Impacts

The interventions carried out under the Environment Programme contributed to improved water resource management, promoting innovative practices of monitoring and reuse, reducing losses, and encouraging water recycling. In the field of biodiversity protection, investments enabled the restoration of vulnerable ecosystems and the increased resilience of natural habitats, promoting greater adaptation to climate change.

In terms of climate adaptation, the National Roadmap for Adaptation 2100 developed high-resolution climate projections for the 21st century, covering mainland Portugal, Madeira, and the Azores. The project also included the creation of an integrated macroeconomic model to assess the costs of inaction and the benefits of adaptation measures, providing a solid scientific basis for political decision-making.

Regarding carbon emission reduction and energy efficiency, innovative solutions were introduced in the renewable energy and sustainable mobility sectors, reducing dependence on fossil fuels. The Programme also supported the training of local authorities and scientific institutions, providing technical tools and specialized knowledge for the formulation of more effective and evidence-based environmental policies.

The scientific impact of the Programme was also significant, with more than 17 scientific articles published on the impacts of climate change, surpassing the initial target of 10 publications. The RNA2100 Portal was also created – a digital platform providing high-resolution climate data, serving as an essential tool for territorial and environmental management.

Thus, the Environment Programme has proven to be an essential pillar in the implementation of innovative and sustainable environmental measures, ensuring tangible benefits in both the short and long term, from financial and operational perspectives.

Characterization of the Bilateral Projects

The 29 bilateral projects analysed under the EEA Grants Environment Programme were designed to address specific environmental challenges through international partnership and structured funding. These projects covered a range of areas, reflecting the strategic priorities of the programme, such as environmental conservation, energy transition, and climate adaptation.

The projects were structured based on criteria of scientific excellence, environmental impact, and financial feasibility, ensuring the maximization of available resources and the creation of replicable long-term solutions. Collaboration with entities from the donor countries strengthened the implementation of the initiatives and ensured the sharing of specialized technical knowledge.

Project Selection Criteria and Framework

The 29 bilateral projects analysed under the EEA Grants Environment Programme were designed with the objective of responding to specific environmental challenges through a model of international partnership and structured funding. These projects not only addressed concrete environmental problems but also created opportunities for knowledge sharing, innovation, and the implementation of effective and sustainable solutions. The structuring of the projects reflects the strategic priorities of the programme, covering areas such as environmental conservation, energy transition, and climate adaptation.

Each initiative was developed based on criteria of scientific excellence, environmental impact, and financial feasibility, ensuring that the available resources were used efficiently and that the proposed solutions could be replicated and scaled. Collaboration with entities from the donor countries, particularly Norway and Iceland, played a decisive role in the implementation of these initiatives, providing access to specialized technical knowledge, innovative technologies, and international best practices. The bilateral partnership ensured that the projects benefited from the accumulated experience of institutions with a strong track record in environmental sustainability, enabling the adaptation of these approaches to the Portuguese context.

The selection of the funded projects followed strict criteria defined by the Environment Programme, ensuring that each initiative was aligned with the strategic objectives of the EEA Grants. To be approved, the projects had to demonstrate environmental relevance, addressing priority challenges identified at both national and European levels. The technical and institutional capacity of the promoting entities and involved partners was also assessed, ensuring that the projects were led by qualified teams capable of implementing effective solutions.

Another essential factor in the evaluation was the sustainability and replicability of the proposed solutions, ensuring that the impacts generated were not limited to the funding period but had continuity in the long term. Innovation and the potential for knowledge transfer were also valued in the selection process, favouring approaches that could be adopted in different contexts and contribute to the advancement of national environmental policies. Lastly, financial efficiency and the ability to deliver within the established deadlines were considered, ensuring that funds were well managed and the defined goals were achieved without compromising project viability.

Application to the EEA Grants involved a detailed technical and financial assessment conducted by independent experts and representatives of the Environment Programme. This process aimed to ensure transparency and quality in selection, allowing for the approval of projects with the highest potential for positive impact and alignment with the environmental priorities defined by the programme.

The funded projects were strategically distributed across various regions of Portugal, ensuring that the benefits of the interventions reached both urban areas and rural and coastal zones. This distribution took into account the specific environmental needs of each territory, ensuring that the solutions developed were adapted to local realities. The sectoral impact of the initiatives was also carefully designed, allowing efforts to be concentrated in five fundamental areas for environmental sustainability.

Biodiversity and ecosystem conservation was one of the priority areas, with projects dedicated to the protection and restoration of natural habitats, preservation of endangered species, and implementation

of sustainable biodiversity management models. Efficient water resource management also assumed a central role, with initiatives aiming to optimize water consumption, improve supply infrastructures, and promote the reuse of water resources in response to challenges such as water scarcity and the impacts of climate change.

In the field of renewable energy transition and energy efficiency, projects focused on developing innovative solutions for clean energy production and storage, as well as implementing measures to reduce energy consumption and promote sustainable energy communities. Climate adaptation and environmental resilience were also key themes, addressing strategies to mitigate the effects of climate change, strengthen the response capacity of communities, and develop infrastructure resilient to extreme weather events.

Additionally, sustainable infrastructure development and innovation emerged as a central axis, integrating projects aimed at sustainable urban regeneration, the implementation of technological solutions for environmental monitoring, and the creation of new approaches to reduce the ecological footprint of cities and industries. Each of these sectors directly benefited from the partnership with Norwegian and Icelandic partners, allowing the knowledge and accumulated experience in these countries to be integrated into the formulation of strategies adapted to the Portuguese reality.

The diversity and scope of the bilateral projects demonstrate the importance of the Environment Programme in transforming the environmental sector in Portugal, promoting concrete and innovative solutions to emerging challenges, and ensuring that sustainability remains a priority axis of public policy.

Geographical and Sectoral Distribution

The projects funded under the EEA Grants Environment Programme were strategically distributed across various regions of Portugal, ensuring that the impacts of the initiatives reached both urban areas and rural and coastal zones. This approach made it possible to adapt the implemented solutions to the specific environmental needs and challenges of each territory, ensuring an effective and sustainable response.

The geographical distribution of the projects took into account factors such as environmental vulnerability, the presence of priority ecosystems, and the need to modernize environmental infrastructure. Regions in the North and Centre received projects focused on biodiversity conservation and reforestation, aiming at the restoration of natural habitats and the creation of ecological corridors. The Lisbon and Tagus Valley region concentrated on initiatives aimed at energy efficiency and sustainable mobility, integrating innovative solutions to reduce the ecological footprint of urban centers.

In Alentejo and Algarve, projects addressed critical issues such as sustainable water management and desertification mitigation, developing new methodologies for water optimization and implementing infrastructure resilient to climate change. In the Azores and Madeira, initiatives focused on climate adaptation and the protection of island ecosystems, essential for biodiversity conservation and for mitigating the impacts of extreme weather events.

At the sectoral level, the projects focused on five major strategic domains, each directly benefiting from partnership with donor country entities and ensuring a sustainable and integrated approach:

Biodiversity and Ecosystem Conservation

- Ensuring the protection of endangered species and the recovery of critical habitats through sustainable management measures and environmental monitoring plans.
- Restoration of natural habitats and strengthening of ecosystem resilience.
- Programmes for the recovery of endangered species and mitigation of human impacts in sensitive natural areas.

Efficient Water Resource Management

- Monitoring and reuse of water resources, promoting efficient water use in strategic sectors.
- Reduction of water supply losses and encouragement of reuse, ensuring the resilience of water systems in the face of climate challenges.

Transition to Renewable Energy and Energy Efficience

- Development of renewable energy infrastructures, including smart grids and innovative energy storage solutions.
- Promotion of sustainable mobility technologies to reduce dependence on fossil fuels and encourage low-carbon transport models.

Climate Adaptation and Environmental Resilience

- Climate projection models and macroeconomic impact assessments, allowing for more robust planning in response to extreme weather events.
- Implementation of the RNA2100 Portal, providing high-resolution climate data to support decision-making in environmental policies and territorial management.

Infrastructure Development and Sustainable Innovation

- Promotion of the use of eco-friendly materials in construction, ensuring greater energy efficiency and lower environmental impact.

- Sustainable mobility systems and digital solutions for optimizing urban and environmental management, promoting smarter and more resilient cities.
- Training and technical support for local authorities and scientific institutions, ensuring that environmental strategies are integrated into public policy.
- Creation of guidelines for climate adaptation in municipal plans, ensuring the implementation of effective and sustainable measures at the local level.

Main Areas of Intervention

The Environment Programme of the EEA Grants structured its intervention across strategic areas aimed at strengthening environmental sustainability and climate resilience in Portugal. Current environmental challenges require a multifaceted approach, which is why the funded projects addressed issues ranging from climate change adaptation to sustainable natural resource management, including the decarbonization of the economy, biodiversity protection, and institutional capacity building.

Climate Change Mitigation and Adapation

The increasing frequency and intensity of extreme weather events—such as prolonged droughts, wildfires, and floods—require a proactive approach grounded in solid scientific knowledge. The Environment Programme supported initiatives that enabled a better understanding of the impacts of climate change and the definition of effective strategies for its mitigation and adaptation.

One of the most relevant projects in this area was the development of high-resolution climate projection models, which provided accurate data on the evolution of weather and climate conditions throughout the 21st century. These models covered the entire national territory, including the autonomous regions of Madeira and the Azores, offering essential information for evidence-based public policy formulation.

Additionally, the RNA2100 Portal was implemented— a digital platform providing detailed climate data to support decision-making in areas such as spatial planning, risk management, and infrastructure adaptation. This portal has become a fundamental tool for local authorities, researchers, and policymakers, enabling them to access detailed forecasts and simulations of future climate scenarios and thereby contributing to more efficient and preventive management of environmental risks.

Sustainable Water Management

Water is one of the natural resources most pressured by climate change, particularly in regions such as Alentejo and Algarve, where water scarcity compromises the sustainability of economic activities and biodiversity. The Environment Programme paid special attention to this issue, funding projects that

promote more efficient and sustainable water use through innovative technological solutions and integrated management practices.

Among the implemented initiatives, advanced water resource monitoring systems stand out, enabling real-time tracking of water availability and quality. In parallel, methods for water reuse and recycling were developed, reducing dependency on traditional supply systems. In urban contexts, the modernization of distribution networks was encouraged to minimize water loss, while in the agricultural sector, precision irrigation techniques were promoted to ensure greater efficiency in the use of this essential resource.

Energy Efficiency and Emissions Reduction

The transition to a more sustainable energy model is one of the fundamental pillars for reducing greenhouse gas emissions and decarbonizing the economy. The Environment Programme supported innovative projects in the fields of renewable energy and energy efficiency, aiming to reduce dependence on fossil fuels and promote clean energy sources.

Among the funded initiatives, the expansion of renewable energy infrastructures was particularly noteworthy, including electricity generation systems based on solar and wind power. Energy storage projects were also developed, essential for ensuring the stability of the power grid and maximizing the use of renewable energy.

Sustainable mobility was another important focus of this area of intervention. Through the promotion of innovative technologies in the transport sector, the adoption of electric and hybrid vehicles was encouraged, as well as the implementation of more efficient and sustainable public transport systems. These measures were complemented by investments in electric charging infrastructure and low-carbon transport networks, enabling a significant reduction in emissions associated with urban mobility.

Biodiversity Conservation and Ecosystem Management

The protection of biodiversity and natural ecosystems plays a key role in maintaining environmental balance and ensuring territorial resilience to human and climatic pressures. The Environment Programme supported initiatives aimed at restoring degraded natural habitats, increasing ecosystem resilience, and protecting endangered species.

Reforestation and natural area restoration projects were developed, particularly in areas affected by wildfires and intensive agricultural practices. In parallel, measures were implemented to control invasive species and strengthen sustainable management of protected areas, ensuring the preservation of sensitive ecosystems and promoting connectivity between natural habitats.

In terms of fauna conservation, specific programmes were conducted to monitor and protect endangered species through the creation of ecological corridors and the re-establishment of natural conditions necessary for their survival.

Capacity Building and Institutional Development

The effectiveness of environmental policies largely depends on the capacity of public and private institutions to implement sustainable strategies and manage environmental challenges in an integrated manner. The Environment Programme made significant investments in technical and institutional capacity building, providing training and technical support to local authorities, researchers, and policymakers.

Training programmes were organized to integrate climate adaptation measures into municipal plans, ensuring that local governments have the necessary tools to plan and manage territories sustainably. In addition, technical exchanges were promoted with Norwegian and Icelandic institutions, enabling the sharing of knowledge and experiences in the implementation of innovative environmental policies.

The creation of strategic guidelines for climate adaptation was another key outcome of this area of intervention, ensuring that municipalities and public bodies have clear references for developing and implementing effective environmental mitigation measures.

The EEA Grants Environment Programme has demonstrated that an integrated approach based on scientific knowledge can produce concrete and sustainable results. Its work in the areas of climate adaptation, water management, energy efficiency, biodiversity, and institutional capacity building has made a significant structural impact, contributing to the construction of a more balanced and resilient environmental future in Portugal.

Profiles of Promoting and Partner Entities and Role of the Entities

The EEA Grants Environment Programme was structured with the collaboration of a broad network of promoting and partner entities, encompassing Portuguese institutions and organisations from the donor countries – Norway, Iceland, and Liechtenstein. The combination of these partnerships ensured that the funded projects were based on robust scientific foundations, advanced technology, and alignment with international best practices.

At the national level, the programme involved the participation of public bodies, universities, research centres, and environmental associations, which played a fundamental role in implementing sustainable solutions and climate adaptation. Among the main promoting entities in Portugal are:

- Portuguese Environment Agency (APA) – Programme coordinator, responsible for the strategic alignment of initiatives with national policies on climate adaptation, energy efficiency, and sustainable water management.
- Faculty of Sciences of the University of Lisbon (FCUL) – Responsible for developing high-resolution climate projection models and macroeconomic impact assessments of climate change.
- Portuguese Institute for Sea and Atmosphere (IPMA) – Leader in the production of climate data and meteorological monitoring, supporting the implementation of the RNA2100 Portal.
- Directorate-General for Territory (DGT) – Worked on integrating climate adaptation policies into spatial planning and modernising planning instruments.
- National Laboratory for Civil Engineering (LNEC) – Focused on the development of resilient infrastructure and evaluation of urban and rural sustainability.
- Municipalities and Intermunicipal Communities – Promoted energy efficiency actions, sustainable mobility, and biodiversity conservation at the local level.

Role of Donor Country Promoters

Foreign promoters from Norway and Iceland played a decisive role in the transfer of knowledge, technological innovation, and methodological support. These entities contributed to the success of the projects through their expertise in risk management, renewable energy, environmental conservation, and sustainable technologies.

Key Norwegian institutions involved in the programme:

- Norwegian Directorate for Civil Protection and Emergency Planning – Specialized in climate resilience and environmental risk management; collaborated in vulnerability analysis and adaptation strategies.
- Norwegian University of Science and Technology (NTNU) – Contributed with applied research in sustainable innovation, renewable energy, and infrastructure decarbonization.
- Norwegian Institute of Bioeconomy Research (NIBIO) – Participated in strategies for biodiversity preservation and sustainable management of agricultural and forest ecosystems.
- NILU – Norwegian Institute for Air Research – Provided advanced methodologies for air quality monitoring and pollution mitigation.
- Vestlandsforsking (Western Norway Research Institute) – Focused on the analysis of climate change impacts in coastal and rural areas.

- KS – The Norwegian Association of Local and Regional Authorities – Provided technical and political support for integrating climate adaptation measures into municipalities and regions.
- Østfoldforskning AS – Developed methodologies for circular economy and sustainability in construction.
- Infinitum AS – Worked on waste reduction and innovative recycling systems.
- RISE Fire Research AS – Specialist in environmental safety and risk prevention in sustainable infrastructure.
- International Development Norway (IDN) and International Development Association Norway – Worked on technology transfer and capacity building for innovative environmental projects.

Key Icelandic institutions involved:

- Soil Conservation Service of Iceland – Engaged in soil restoration and desertification mitigation, a growing issue in some Portuguese regions.
- Icelandic National Commission for UNESCO – Worked on the preservation of natural and cultural heritage, promoting sustainability in protected areas.
- ReSource International ehf – Specialist in waste management and material recovery, supporting circular economy projects.
- EVRIS Foundation ses – Developed initiatives in urban sustainability and sustainable mobility.

Other Institutions:

- National Centre for Sustainable Production and Consumption (CNPCD), Romania
- ENVIROS s.r.o., Czech Republic – Contributed to energy efficiency in buildings and resource consumption reduction.

The National Centre for Sustainable Production and Consumption (CNPCD) from Romania and ENVIROS s.r.o. from the Czech Republic participated in the EEA Grants Environment Programme as non-funded technical partners, as stipulated by the Financial Mechanism Regulation. Although they did not receive financial support, their contribution was highly relevant, focusing on knowledge transfer and technical collaboration in areas such as sustainable production, energy efficiency in buildings, and resource consumption reduction.

Collaboration with these entities strengthened the technical and institutional capacity of Portuguese organisations, ensuring that the implemented solutions were innovative, effective, and aligned with international best practices. The sharing of know-how and practical experience among partners allowed for the development of more robust responses to environmental challenges in the construction sector, promoting a collaborative approach oriented toward technical excellence.

Bilateral Partnerships and the Role of International Partners

The EEA Grants Environment Programme promoted continuous bilateral partnership between Portugal and the donor countries, ensuring that the funded projects were implemented based on international best practices. This partnership was structured to maximise the exchange of technical knowledge and ensure the effectiveness of adopted solutions.

The main strategy of the bilateral partnerships was to facilitate technology and innovation transfer, creating synergies between Portuguese institutions and their counterparts in Norway and Iceland. The Bilateral Relations Fund played a central role, financing scientific exchange initiatives, technical workshops, and the development of decision-support tools.

The key focuses of the bilateral partnership were:

Development of climate risk analysis models – The application of advanced environmental impact forecasting models enabled Portugal to strengthen its capacity to respond to extreme events.

Innovation in water management – Partnerships with Norwegian institutes led to the introduction of advanced systems for water reuse, water quality monitoring, and efficiency optimisation in urban supply systems.

Promotion of energy efficiency and renewable energy – Iceland's experience in geothermal energy and Norway's in hydroelectric and wind power was integrated into innovative projects in Portugal.

Capacity building and technical training – Exchange programmes were organised for technicians and policymakers, enabling Portuguese municipalities to learn directly from the experiences of the donor countries.

Circular economy and sustainable waste management – Bilateral partnerships facilitated the adoption of new models for recycling, reuse of construction materials, and waste reduction.

The projects implemented under the framework of these bilateral partnerships were strategically structured to ensure long-term impacts, guaranteeing that the best practices introduced remained in use even after the funding period ended.

Territorial Impact: Benefited Regions and Communities – Executive Summary

The territorial impact of the projects funded by the EEA Grants Environment Programme extended to several regions across the country, covering urban, rural, and coastal areas. The implementation of these initiatives had a direct effect on the enhancement of territories and the strengthening of local communities, fostering greater identity ownership and sustainable use of endogenous resources. In particular, the Biosphere Reserves (BRs) emerged as direct beneficiaries of the projects, promoting sustainable development practices and reinforcing community involvement.

A total of 22 activities were implemented in 12 Biosphere Reserves, directly benefiting an estimated population of 320,125 people. In addition, digital platforms were developed to record and disseminate environmental and scientific best practices, contributing to citizen science and collaborative territorial management. These tools facilitated the monitoring of implemented actions and enabled the creation of cooperation networks that strengthened both local and national capacities to respond to climate change.

Ecosystem rehabilitation was another area with significant impact. Biodiversity conservation projects enabled the recovery of critical habitats, promoting environmental resilience within communities. The direct involvement of citizens in the conservation of natural ecosystems and the sustainable management of resources had a positive effect on the perception and valuation of territory, encouraging sustainable tourism and local entrepreneurship.

Environmental and Technological Impact

The projects funded by the EEA Grants demonstrated a strong environmental impact, reflected in the reduction of carbon footprint, improvement in environmental quality, and the development of innovative technological solutions.

The ReBuilT project, for example, helped to prevent the emission of 43,840 kg of CO_2 equivalent by reusing and repairing IT equipment. This initiative highlighted the potential of circular economy strategies to reduce the environmental impact of the production and disposal of electronic devices.

Other projects focused on air quality improvement and sustainable urban mobility. The installation of environmental sensor networks, analytical cameras, and public Wi-Fi in urban areas—such as the city of Porto—enabled real-time collection and analysis of data on air quality, traffic, and environmental behaviour of the population. These systems generated critical information for defining more sustainable urban policies.

Technological innovation was also present in the sustainable construction sector. The UAVEIRO Green Building project adopted Building Information Modeling (BIM) and EcoDesign methodologies to optimise energy efficiency and reduce material waste in construction. Process digitalisation and the incorporation

of recycled materials demonstrated that technological innovation can help reduce environmental impact in the construction sector.

Impact on Capacity Building and Skills Development

In the case of the Environment Programme, the financial allocation approved and established in the MoU was €28.9 million, representing 27% of the total EEA Grants allocation for Portugal.

With this amount, it was possible to mobilise 34 participations from donor country partners and others, across 29 of the 60 approved projects.

These participations included donor countries (Norway and Iceland) as well as contributions from Romania (1) and the Czech Republic (1).

Norway stood out with 28 participations, followed by Iceland with 4. Liechtenstein had no participation—neither financial nor as a non-funded partner.

Of the total allocated funding:

Norway absorbed approximately 83% (€1,041,455

Iceland: 9% (€107,949)

Other countries: 8% (€97,594)

Liechtenstein: 0% (no financial or partnership participation).

Post-Funding Project Sustainability

The sustainability of the supported projects was ensured through the integration of developed actions into the strategic planning instruments of municipalities and public bodies. Several projects led to the creation of local public policies, municipal climate adaptation roadmaps, technical manuals, and digital platforms for ongoing use.

International partnerships and know-how transfer enabled the institutionalisation of best practices, while the capacity building promoted ensured that local teams were capable of continuing activities after the funding period. The involvement of universities, such as the University of Bergen and the Faculty of Sciences of the University of Lisbon (FCUL), also ensured the scientific and technical continuity of the projects, with the potential for future complementary funding.

Additionally, the combination of EEA Grants with national co-financing (15%) and articulation with other European funding sources reinforced the financial and strategic robustness of the implemented actions.

Financial Results and Budget Execution

Allocated Funding Amounts

Of the €28.9 million allocated to the Environment Programme, a significant portion was assigned to the implementation of the 29 bilateral projects. The total amount allocated to donor country partners reached approximately €1,247,000, with Norway accounting for 83% (€1,041,455), followed by Iceland with 9% (€107,949), and other countries with 8% (€97,594).

This funding enabled the participation of internationally renowned institutions in fields such as biodiversity, energy, mobility, and circular economy, providing technical and strategic added value to the executed projects.

Execution Rates and Financial Efficiency

With an overall execution rate above 96%, the Environment Programme demonstrated a high level of financial efficiency, particularly in the context of international partnership and shared management. This financial performance reflects not only the robustness of the monitoring model but also the capacity of the promoting entities to meet deadlines, targets, and commitments, even amid administrative and technical complexity.

The high execution rate is especially noteworthy given the degree of innovation and multidisciplinarity of the projects, many of which involved participatory processes, technology development, and international knowledge transfer.

National Co-financing (15%) and EEA Grants (85%)

The funding structure of the projects followed the standard EEA Grants model: 85% of the funding provided by donor countries (primarily Norway and Iceland) and 15% ensured through national co-financing (public or private).

This model ensured shared responsibility and commitment from national entities in the implementation and continuity of actions. The combination of international funding with national resources guaranteed the full execution of the projects, fostered stable partnerships, and laid the groundwork for the future replication of developed solutions.

Key Management Challenges

- From a management perspective, the projects faced challenges related to:
- The bureaucratic complexity of application, approval, and reporting processes, frequently cited as a friction point by promoting entities;
- Coordination among multiple partners, especially in projects involving more than one international entity;
- The need for greater temporal flexibility, particularly in initiatives involving technological innovation and pilot testing in the field;
- The alignment with public policies, especially the difficulty in fully integrating projects into regional and national strategic plans;
- The sustainability of partnership networks after the funding period, which requires formal structures or additional incentives for continued institutional collaboration.

Impact and Results of the Projects

The projects implemented under the EEA Grants Environment Programme proved to have a multilateral impact, with concrete and measurable expression in various strategic dimensions of sustainable development, reflecting a holistic and structural approach to environmental action in Portugal.

At the environmental level, there was a significant contribution to the recovery and resilience of natural ecosystems, namely through the rehabilitation of degraded habitats, the protection of endangered species, and the consolidation of ecological corridors. In parallel, measures were implemented with a direct impact on the mitigation of carbon dioxide (CO_2) emissions, as well as interventions aimed at increasing efficiency in the use of resources, namely water and energy, contributing to the sustainability of urban and rural systems.

At the technological level, the programme fostered innovation by promoting the development and implementation of advanced digital tools. Among these, the creation of the RNA2100 Portal, a national platform for high-resolution climate projections, stands out—its utility extends to territorial management, urban planning, and the formulation of data-driven public policies. The introduction of methodologies such as Building Information Modelling (BIM) and the use of smart environmental sensors demonstrate a clear commitment to the modernisation of environmental management and the digital transition of the sector.

In scientific terms, the programme largely exceeded its initially defined goals, with the production of more than 17 scientific articles published in specialised journals, surpassing the target of 10. This scientific output strengthens the technical credibility of the funded projects, while contributing to the

dissemination of knowledge on climate change, biodiversity, and sustainability, consolidating an empirical basis for future political and academic interventions.

In the territorial dimension, the intervention of the funded projects followed a logic of spatial equity, ensuring coverage across the entire national territory, including the Autonomous Regions of Madeira and the Azores. The adaptation of actions to the ecological, socioeconomic, and climatic specificities of each region allowed a tailored response to local vulnerabilities, with visible effects on territorial cohesion and the efficiency of implemented measures.

From a social perspective, the projects strengthened the active involvement of communities, particularly in areas designated as Biosphere Reserves, promoting participatory practices and citizen science methodologies. This dimension encouraged shared responsibility among populations in the conservation of their ecosystems and the recognition of local knowledge as a valid and complementary component to institutional science, generating lasting social and environmental capital.

Finally, at the institutional level, the programme contributed significantly to strengthening the capacities of local and regional administrations. Through technical training, the introduction of innovative planning tools, and the integration of adaptation and mitigation measures into municipal strategic plans, a strengthening of environmental governance was observed—more robust, informed, and adaptive.

Thus, the Environment Programme should not be understood merely as a funding mechanism, but rather as a catalyst for structural transformation and institutional innovation, whose impacts go beyond the period of financial support. Its transversal, multidimensional, and results-oriented nature reinforces its relevance as a model of integrated action in favour of ecological transition and territorial resilience in Portugal.

Survey of Project Promoters

Objectives of the Surveys do Inquérito

The survey was designed with the aim of assessing the contribution of donor project partners (DPPs) in the bilateral projects funded under the Environment Programme of the EEA Grants. The objective was to understand, in an objective and systematised manner, the role of DPPs in the design, implementation, and sustainability of the projects, gathering promoters' perceptions regarding the quality of collaboration, benefits obtained, main challenges faced, and opportunities for improvement for future bilateral partnerships.

Application Methodology

The survey consisted of 10 short-answer questions (estimated response time: 50 seconds to 1 minute), combining multiple choice questions, satisfaction scales, and optional open-ended responses. The questionnaire was sent to all 30 promoters of bilateral projects that involved at least one donor country partner (Norway, Iceland, or Liechtenstein). The identification of each project was pre-filled to ensure traceability of the responses. Answers were collected anonymously and voluntarily via the Microsoft Forms platform.

Analysis of Results and Promoters' Perceptions

A total of 9 valid responses were received, corresponding to a response rate of 30% of the 30 identified bilateral projects involving donor country partners (DPPs). The average rating of collaboration with DPPs was 3.3 stars on a scale of 1 to 5, reflecting a moderately positive overall perception, albeit with room for improvement in various dimensions of the partnership.

Promoters indicated that DPPs contributed primarily in the phases of technical implementation, institutional capacity-building, and dissemination of results, with their involvement being more pronounced in technical-scientific and strategic support components. Regarding sustainability, the majority of projects stated they would continue in whole or in part after the end of funding, with only one respondent indicating that their project would terminate entirely. These data suggest that, in most cases, the effects of bilateral cooperation tend to extend beyond the formal duration of financial support.

In open-ended responses, central themes emerged such as the need to strengthen communication between partners, ensure transparency in strategic decisions, and use English as a common working language, in order to guarantee greater clarity and inclusion throughout project implementation. The importance of promoting more interaction moments between partners — such as matchmaking events and technical exchanges — was also emphasised, enabling expectation alignment from the early application stages.

Promoters further identified occasional asymmetrical relationships, calling for a more balanced budget allocation among involved entities, a fairer distribution of operational responsibilities, and clearer administrative and reporting procedures. The bureaucratic burden and complexity of required documentation were noted as barriers to the fluidity of cooperation. It was suggested that fairer hourly rates be recognised, especially for partners from donor countries, whose contextual costs are substantially different.

Finally, in some cases, it was reported that task allocation to DPPs was not adequately aligned with their institutional nature, which limited their involvement and reduced the effective impact of cooperation.

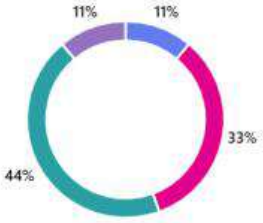
This observation reinforces the importance of ensuring, in future funding calls, a clear alignment between functions, capacities, and responsibilities of partner entities, promoting more balanced, effective, and sustainable collaborations.

Graphics

At which stage(s) did the DPPs contribute the most? *(Multiple choice - up to 3 options)* (0 ponto)

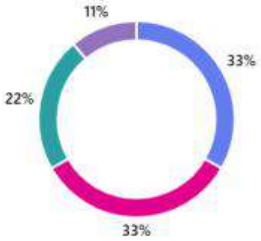
What was the impact of the DPP partnership on the project's sustainability after funding? *(Single choice)* (0 ponto)

High – The partnership contributed to the project's continuity	1
Medium – Some aspects of the project will continue due to the partnership	3
Low – The partnership had little impact on the project's continuity	4
None – The project will not continue regardless of the partnership	1



Was the DPP partnership essential to achieving the project's objectives? *(Single choice)* (0 ponto)

Yes, it was crucial	3
Yes, but complementary	3
Partially, with some limitations	2
No, it was not essential	1

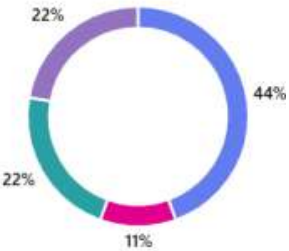


Main challenges in collaboration with DPPs? *(Multiple choice - up to 2 options)* (0 ponto)

Cultural or methodological differences	3
Difficulty in coordination and communication	4
Meeting deadlines and deliverables	2
Availability of funding and resources	1
Everything is proceedwithout issues	2

What was the most relevant benefit of the DPP collaboration? *(Single choice)* (0 ponto)

Knowledge and technical expertise transfer	4
Institutional capacity building	1
Implementation of innovative technologies	2
Expansion of networks and new collaborations	2



Did the DPP partnership lead to new collaboration opportunities? *(Single choice)* (0 ponto)

How would you rate the overall collaboration with the DPP? *(Single choice - scale of 1 to 5)* (0 ponto)

Will the project continue after funding? *(Single choice)* (0 ponto)

Recommendations Based on the Responses

Based on the perceptions gathered from the promoting entities, a set of strategic recommendations has been identified to strengthen bilateral collaborations within the scope of the Environment Programme of the EEA Grants, with the aim of enhancing the impact, equity, and sustainability of international partnerships:

- Strengthen communication and strategic alignment between promoters and DPPs from the application stage onwards, ensuring that all partner entities actively participate in decision-making processes, thereby guaranteeing shared and transparent management of initiatives.
- Adopt English as the common working language, promoting effective and inclusive communication, and avoiding potential linguistic inequalities that may hinder the smoothness of cooperation.

- Promote matchmaking and pre-project capacity-building sessions, facilitating a better match between the institutional profiles of partners and their assigned responsibilities, ensuring that DPPs play an appropriate and meaningful role in project dynamics.

- Ensure greater budgetary balance and clarification of responsibilities among the parties involved, harmonising financial and operational expectations, and reducing asymmetries that could compromise partnership quality.
- Simplify administrative and reporting processes, adjusting them to the realities and capacities of the partner institutions, promoting more efficient and less burdensome management without compromising the required levels of rigour and transparency.
- Review the hourly rates applied in donor countries, to ensure budgetary fairness and adequately reflect the real costs of partner entities, especially considering the differing economic contexts of donor countries.
- Stimulate more in-depth scientific and technical collaborations, leveraging the DPPs' know-how and ensuring that their contribution goes beyond a merely formal role, thereby strengthening the innovative and knowledge-transfer components of the partnerships.

These guidelines constitute strategic directions for enhancing bilateral cooperation models, ensuring that future initiatives funded by the EEA Grants are more balanced, inclusive, and effective, promoting more robust and sustainable results in the environmental and climate domains.

Conclusions and Recommendations

The analysis of the 29 bilateral projects funded under the EEA Grants Environment Programme highlights the central role of international partnership in implementing innovative environmental solutions in Portugal. Collaboration between Portuguese entities and 29 donor country partners (Norway and Iceland) proved essential in strengthening national technical and scientific capacity, developing advanced methodologies, and transferring European best practices.

From a financial perspective, the high project implementation rate (above 96%) demonstrates efficient fund management and strong commitment to achieving the strategic objectives of the programme. The diversification of funding sources—combining EEA Grants with national and international co-financing—was a decisive factor in the success of the projects and ensured their medium- and long-term sustainability.

In environmental and technological terms, the projects delivered significant progress in biodiversity conservation, sustainable water resource management, energy efficiency, and climate adaptation. The

introduction of new technologies and data-based management models enabled greater control and monitoring of environmental impacts, strengthening the country's capacity to respond to climate change.

However, the report also identifies challenges to be addressed in future initiatives. The bureaucratic complexity of the application and project execution processes was one of the main obstacles, hindering the streamlining of international partnerships. Furthermore, the need for greater integration of funded projects with public policies and long-term strategies is a critical aspect for maximising the impact of supported initiatives.

Accordingly, the following is recommended:

Strengthening the technical and administrative capacities of promoting entities to facilitate project management and execution, reducing bureaucratic hurdles.

Creating a mechanism for continuous monitoring of the environmental and socioeconomic impacts of funded initiatives, ensuring their effectiveness and allowing for strategic adjustments.

Encouraging complementary financing models, such as public-private partnerships and private investment in the environmental sector, to guarantee continuity of actions after the EEA Grants funding ends.

Promoting a more structured national strategy for international partnership, consolidating permanent working networks between Portugal and the donor countries beyond the funding periods.

Reflections on the Quality of Partnerships

The analysis of the survey responses reveals an overall positive perception of the quality of bilateral partnerships established within the projects funded by the EEA Grants Environment Programme. The average evaluation of collaboration with Donor Project Partners (DPPs) was 3.3 stars on a scale of 1 to 5, which, while indicating a moderate level of satisfaction, also highlights areas with potential for improvement, particularly regarding expectation alignment and balance of responsibilities among partners.

The qualitative dimensions of the partnerships were extensively discussed in open responses, with particular attention to aspects such as mutual trust, communication flow, transparency in decision-making, and fairness in resource distribution. While most promoters acknowledged the technical-scientific value brought by the DPPs, references were also made to occasionally asymmetric relationships—especially regarding the definition of operational responsibilities and budget management—which may affect the full engagement and effective impact of donor country entities.

The quality of partnerships is thus influenced by structural factors, such as the alignment between institutional profiles and assigned functions, as well as operational elements, such as communication and reporting mechanisms. The perception of excessive bureaucratic burden and disparities in hourly rates was identified as a barrier to cooperation efficiency, suggesting a need for greater harmonisation of procedures and adjustments in financial management practices.

In summary, bilateral partnerships have proven to be fundamental to project success, particularly through the transfer of technical knowledge, institutional capacity-building, and internationalisation of initiatives. Nonetheless, their structuring and operationalisation would benefit from adjustments to maximise strategic value and ensure more balanced and effective relations.

Lessons Learned and Good Practices

The experience gained from the bilateral projects funded by the EEA Grants demonstrates that the quality of international partnerships is one of the critical factors for the success of environmental initiatives, reinforcing the importance of effective collaborative strategies and shared, transparent management.

Among the most valued aspects is the adoption of participatory methodologies, which ensured the involvement of local communities, experts, and policymakers, promoting solutions tailored to the actual needs of the territories and fostering beneficiary commitment. Technological innovation—through the introduction of predictive models for climate risk, environmental sensor networks, and artificial intelligence—was also a key factor, enabling decision-making based on scientific evidence.

However, the analysis of responses from project promoters highlights structural challenges in the quality of partnerships, particularly in terms of communication, transparency, and balance between entities. The need to involve all partners in strategic decisions and to ensure the use of English as the common working language was emphasized, facilitating coordination between institutions from different contexts. More matchmaking events and bilateral initiatives were also suggested, to promote alignment of expectations and a better match between institutional profiles.

Some responses revealed perceptions of asymmetrical relationships between Portuguese promoters and donor project partners (DPPs), especially regarding budget distribution, operational responsibilities, and clarity in reporting processes. The bureaucratic burden associated with reporting and the need for fairer hourly rates were identified as barriers to smooth cooperation, at times compromising the flexibility of projects to adapt to local conditions and unforeseen circumstances.

It was also noted that, in certain cases, the role of DPPs was limited, particularly when their functions were not properly aligned with the nature and objectives of the projects, which reduced the potential for

real scientific and technical cooperation. These observations reinforce the importance of ensuring that partnerships are structured in a balanced and functional way, genuinely valuing the contribution of all involved parties.

Another good practice identified was the creation of synergies between different funding sources, combining the EEA Grants with national and European programmes, ensuring greater financial sustainability and enabling the expansion of initiatives beyond the initial funding. The integration of multiple stakeholders—including public institutions, the private sector, academia, and civil society—was decisive for knowledge exchange and for adapting solutions to different realities.

Thus, for future editions of the EEA Grants, it is recommended that these good practices and reflections on partnership quality be formally incorporated into programme guidelines, in order to maximize positive impacts and ensure the strengthening of bilateral partnerships as a central pillar of environmental and climate initiatives.

Recommendations for Future Funding

Based on the analysis of the bilateral projects and the lessons learned throughout their implementation, a set of recommendations can be identified to optimize future editions of the EEA Grants and other environmental funding programmes. Adopting these measures will increase the efficiency of administrative processes, strengthen the integration of initiatives with strategic public policies, and ensure the sustainability of the impacts generated.

One of the main challenges identified during project implementation was the bureaucratic complexity of administrative and operational procedures. Simplifying the application, approval, and reporting processes could reduce the barriers that hinder the participation of promoting entities, ensuring that a greater number of qualified projects are submitted and implemented effectively. Additionally, the flexibility of deadlines and administrative requirements could enable beneficiaries to better adapt to unforeseen challenges and adjust strategies without compromising project objectives.

Another relevant aspect is the integration of funded projects with national and European public policies. Aligning initiatives with Portugal's environmental commitments and with the United Nations Sustainable Development Goals (SDGs) will help to maximize investment impact, ensuring the continuity and replication of implemented solutions even after funding ends. To achieve this, closer coordination between funded projects and national and EU strategic plans is essential, ensuring that the developed solutions are scalable and integrated into long-term policy frameworks.

Project effectiveness should not be measured solely by financial execution but also by their actual impact on reducing carbon emissions, conserving biodiversity, and climate adaptation. Therefore, it is

recommended to strengthen monitoring and impact evaluation, through the creation of more precise and systematic performance indicators. These indicators should allow for ongoing assessment of the environmental, social, and economic outcomes of the funded initiatives, enabling strategic adjustments and the replication of the most effective solutions in other regions or sectors.

The replication of successful projects should be encouraged as a strategy to broaden the impact of funded environmental initiatives. For this, the creation of formal mechanisms that allow the expansion of pilot projects is essential, facilitating the transfer of knowledge and technology to other regions of the country and even to other EU Member States. This model will allow innovative solutions tested in specific contexts to be scaled to similar environmental challenges elsewhere, ensuring more efficient use of resources and avoiding investment fragmentation.

Finally, it is essential to promote a culture of continuous partnership, ensuring that the bilateral partnerships established during project implementation are maintained and strengthened beyond the initial funding. The formalization of institutional partnership agreements and the creation of innovation networks will allow the scientific and technological advances resulting from funded projects to continue to be updated, shared, and applied in new initiatives. Moreover, maintaining these collaborations will help strengthen Portugal's position in the European context of environmental innovation, consolidating the country as a reference hub in the implementation of sustainable and innovative environmental policies.

These recommendations aim to enhance the impact of the EEA Grants, ensuring that the investments made yield lasting effects and contribute to an effective ecological transition, integrated into national and international sustainability strategies.

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Final Reports of the 29 Bilateral Projects - https://www.eeagrants.gov.pt/pt/programas/ambiente/relatorios-finais/

Annexes: Annex 1: Full List of the 29 Bilateral Projects

Outcome	Internal no.	Grace no.	Name of the Project	Promoter	Project Partner(s)	
					National	Donor Countries
3	PDP-2	PT-ENVIRONMENT-0002	"Territorial climate change vulnerability assessment'	Portuguese Environment Agency (APA)	Portuguese Environment Agency, Banco de Portugal, Directorate-General for Territory, Faculty of Sciences of the University of Lisbon, Portuguese Institute of the Sea and the Atmosphere	Norwegian Directorate for Civil Protection and Emergency Planning
3	PDP-3	PT-ENVIRONMENT-0003	"Management of the Rio Ceira River Basin adapted to a changing climate"	Portuguese Environment Agency (APA)	Municipality of Arganil, Municipality of Gois, Municipality of Pampilhosa de Serra, Municipality of Lousa, FEUP - Faculdade de Engenharia da Universidade do Porto, CIM-RC	Norwegian Directorate for Civil Protection and Emergency Planning
1	05_SG S#2	PT-ENVIRONMENT-0007	C + D	Instituto Superior Técnico	N/A	østfoldforskning AS
1	38_SG S#1	PT-ENVIRONMENT-0013	LowPlast	Vila Nova da Cerveira Municipality	Fundação Bienal de Cerveira, F.P., Portuguese Association for Marine Litter	Det Tverrfaglige Kunstinstitutt
1	04_Call#1	PT-ENVIRONMENT-0015	Oeste + Recicla	OesteCIM	N/A	Empower AS
1	09_Call#1	PT-ENVIRONMENT-0019	REAP	University of Aveiro	N/A	Infinitum AS
1	03_Call#2	PT-ENVIRONMENT-0022	Tellus	Oliveira & Ferro, Serviços e Consultoria, Lda. / Tellus Origo	N/A	Reframe Arkitektur AS
1	07_Call#2	PT-ENVIRONMENT-0023	CircularBuild	CONCEXEC – Arquitectura, Lda	LNEC - Lab. Nac. Engenharia Civil, Associação Plataforma para a Construção Sustentável	RISE Fire Research AS
1	08_Call#2	PT-ENVIRONMENT-0024	(Des)contruir_Economia_Circular	CIMBAL - Comunidade Intermunicipal do Baixo Alentejo	LNEG - National Laboratory of Energy and Geology, NOVA - Nova University Lisboa, Polytechnic Institute of Portalegre, Resialentejo – Tratamento e Valorização de Resíduos, EIM, Smart Waste Portugal Association, RDF Construções – Sociedade Imobiliária Lda., CERCIBEJA, Cooperativa para a Educação, Reabilitação, Capacitação e Inclusão de Beja, CRL	Internacional Development Norway AS, National Centre for Sustainable Production and Consumption, ENVIROS s.r.o
1	12_Call#2	PT-ENVIRONMENT-0025	Circular ECOBim	3 DRIVERS ENGENHARIA INOVAÇÃO E AMBIENTE,LDA	Central BIMSurvey, Lda., Atelier dos Remédios - Arquitectura e Renovação Urbana, Lda, Potential Sketch – Investimentos Imobiliários, Lda, IST- Instituto Superior Técnico	Norwegian University of Science and Technology
1	13_Call#2	PT-ENVIRONMENT-0026	GrowingCircle	IC - Instituto da Construção	N/A	Norwegian University of Science and Technology
1	15_Call#2	PT-ENVIRONMENT-0027	ReBuild 17	LREC - Laboratório Regional de Engenharia Civil - Secretaria Regional dos Transportes e Obras Públicas –	CIMPA - Centro de Inovação em Materiais e Produtos Avançados, Lda	ReSource International ehf
1	16_Call#2	PT-ENVIRONMENT-0028	CirMat	Domingos da Silva Teixeira, S.A.	IST- Instituto Superior Técnico, Uminho - Universidade do Minho	Norwegian University of Science and Technology
1	19_Call#2	PT-ENVIRONMENT-0029	SECClasS	ISCTE - Instituto Universitário de Lisboa	LNEC - Laboratório Nacional de Engenharia Civil, I.P., Uminho - Universidade do Minho, Norte Magnético - Reabilitação e Investimentos Imobiliários, Lda	A-lab AS
1	29_Call#2	PT-ENVIRONMENT-0030	GreenBuildings	UA - Universidade de Aveiro (Promotor)	Associação Plataforma para a Construção Sustentável	EVRIS Foundation ses
1	37_Call#2	PT-ENVIRONMENT-0031	Circular2B - Construção circular em edifícios modulares e energeticamente eficientes	FEUP - Faculdade Engenharia da Universidade do Porto	Dreamdomus - Domótica e Projectos de Engenharia, Lda, UTAD - University of Trás-os-Montes e Alto Douro, FCUP - Faculty of Sciences of the University of Porto	Stiftelsen for industriell og teknisk forskning
2	09_Call#3	PT-ENVIRONMENT-0032	Reservas da Biosfera: Territórios sustentáveis, Comunidades resilientes	Quaternaire Portugal, SA	Universidade de Coimbra, Universidade Nova de Lisboa, Instituto Pedro Nunes, AIDCT, Ordem dos Biólogos	KEEP - Knowledge for Peace, University of Bergen, Nordhordland Utviklingsselskap IKS,Icelandic National Commission for UNESCO
3	13_SG S#3	PT-ENVIRONMENT-0035	Adapta.Local.CIMAC – Planning of Municipal Climate Adaptation of Central Alentejo	Comunidade Intermunicipal do Alentejo Central (CIMAC)	Centro de Estudos e Desenvolvimento Regional e Urbano (CEDRU)	International Development Norway
3	17_SG S#3	PT-ENVIRONMENT-0038	Climate Change Adaptation in Vila Nova de Poiares	Município de Vila Nova de Poiares	N/A	Norsk institutt for luftforskning stiftelse (NILU)
3	38_SG S#3	PT-ENVIRONMENT-0040	Oeste Adapta - Planeamento da Adaptação Climática Municipal na Região Oeste	Comunidade Intermunicipal do Oeste (CIM Oeste)	Centro de Estudos e Desenvolvimento Regional e Urbano (CEDRU)	Vestlandsforsking (Western Norway Research Institute)
3	42_SG S#3	PT-ENVIRONMENT-0042	AwK - Adaptation with Knowledge, Climate Change	Comunidade Intermunicipal do Algarve (CI-AMAL)	Região de Turismo do Algarve	KS - the Norwegian Association of Local and Regional Authorities
3	01_Call#4	PT-ENVIRONMENT-0049	Cascais Smart Pole by NOVA SBE	Fundação Alfredo de Sousa	Get2C, Lda, Veolia Portugal, SA, PRIO BIO S.A., EMAC - Empresa Municipal de Ambiente de Cascais, E.M., S.A, Câmara Municipal de Cascais, Nova School of Business and Economics e Veolia Portugal	Avfallsteknisk Montasje AS (Noruega).
3	02_Call#4	PT-ENVIRONMENT-0050	I4efficiency - Identificador inteligente de integração e eficiência logística	ZERO - Associação sistemas terrestres sustentável	MARLOCONSULT, Lda, VT MAR, unipessoal, Lda, C4P – Correio de Proximidade, unipessoal Lda, Câmara Municipal de Sintra, Faculdade de Arquitetura - CIAUD	MARLO AS
3	03_Call#4	PT-ENVIRONMENT-0051	Asprela + Sustentável	COOPÉRNICO - Cooperativa de Desenvolvimento Sustentável, CRL	AdEPorto – Agência de Energia do Porto, Associação Porto Digital, Empresa Municipal de Ambiente do Porto, EM, S.A., CMPEA – Empresa de Águas do Município do Porto, EM, S.A., INEGI, INESC-TEC, EFACEC Energia, EFACEC Electric Mobility, S.A., Virtual Power Solutions, S.A., EVIO – Electric Mobility, Lda., FAP – Federação Académica do Porto, Município do Porto	IDNA – International Development Norway Association
3	04_Call#4	PT-ENVIRONMENT-0052	Living Lab da Afurada	CEDES - Centro de Estudos em Desenvolvimento Sustentável	Município de Vila Nova de Gaia, Gaiurb – Urbanismo e Habitação, EM, CEiiA - Centro de Engenharia e Desenvolvimento, Ubiwhere, S.A., DST Solar, Innovation Point - Investigação e Desenvolvimento, S.A., Watt-IS S.A.	NTNU: Norwegian University of Science and Technology
3	05_Call#4	PT-ENVIRONMENT-0053	SMILE - Sintra Motion & Innovation for Low Emissions	Fundação Aga Khan Portugal	IRRADIARE - Investigação e desenvolvimento em engenharia e ambiente lda, Card4B Systems S.A, FCUL, WATT-IS, S.A., DST Solar, S.A., INNOVATION POINT, Câmara Municipal de Sintra	International Development Association Norway
3	04_Call#5	PT-ENVIRONMENT-0057	FoRES	Universidade de Aveiro	Forestwise	NIBIO Norwegian Institute of Bioeconomy Research
3	10_Call#5	PT-ENVIRONMENT-0058	LandUnderPressure	Faculdade de Ciências da Universidade de Lisboa	Instituto Politécnico de Bragança	Soil Conservation Service of Iceland
3	12_Call#5	PT-ENVIRONMENT-0060	+Solo+Vida	Associação de Defesa do Património de Mértola	N/A	International Development Norway (IDN)

Annex 2: Survey Questionnaire Used in the Inquiry

Donor Project Partners (DPPs) Contribution Evaluation Form

Estimated completion time: 50 seconds to 1 minute

Target respondents: Promoters of EEA Grants bilateral projects

* Obrigatória

1. Project Identification / Name: *

2. E-mail *

3. Lead Organization (Promoter) *

4. Project Partner (Donor Country) *

5. **At which stage(s) did the DPPs contribute the most?** *(Multiple choice - up to 3 options)* *

- [ ] Planning and application
- [ ] Technical implementation
- [ ] Funding and resource management
- [ ] Monitoring and impact assessment
- [ ] Dissemination and capacity building

6. **What was the impact of the DPP partnership on the project's sustainability after funding?** *(Single choice)* *

- ◯ High – The partnership contributed to the project's continuity
- ◯ Medium – Some aspects of the project will continue due to the partnership
- ◯ Low – The partnership had little impact on the project's continuity
- ◯ None – The project will not continue regardless of the partnership

7. **Was the DPP partnership essential to achieving the project's objectives?** *(Single choice)* *

- ◯ Yes, it was crucial
- ◯ Yes, but complementary
- ◯ Partially, with some limitations
- ◯ No, it was not essential

8. **Main challenges in collaboration with DPPs?** *(Multiple choice - up to 2 options)* *

- [ ] Cultural or methodological differences
- [ ] Difficulty in coordination and communication
- [ ] Meeting deadlines and deliverables
- [ ] Availability of funding and resources
- [ ] Everything is proceedwithout issues

9. **What was the most relevant benefit of the DPP collaboration?** *(Single choice)* *

- ◯ Knowledge and technical expertise transfer
- ◯ Institutional capacity building
- ◯ Implementation of innovative technologies
- ◯ Expansion of networks and new collaborations

10. **Did the DPP partnership lead to new collaboration opportunities?** *(Single choice)* *

- ◯ Yes, new projects are already planned
- ◯ Yes, there is interest but no concrete actions yet
- ◯ No, but there is potential for future collaboration
- ◯ No, the collaboration will end with this project

11. **How would you rate the overall collaboration with the DPP?** *(Single choice - scale of 1 to 5)* *

☆ ☆ ☆ ☆ ☆

12. **Will the project continue after funding?** *(Single choice)* *

- ◯ Yes, with own resources or new funding
- ◯ Partially, some activities will continue
- ◯ No, it will end after the funding period

13. **What do you consider essential to improve future bilateral projects?** *(Optional short open response)* *