

**REPORT ON THE RELEVANCE
OF THE STRATEGIC
ENVIRONMENTAL ASSESSMENT**



European Union

European Regional
Development Fund

**Strategic Environmental
Assessment of the
Transnational Cooperation
Programme
of the Atlantic Area
for the programming period
2014-2020**

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1. NON-TECHNICAL SUMMARY

Regulation (EU) No. 1303/2013 of the European Parliament and the Council laying down common provisions on the ERDF, ESF, Cohesion Fund, EAFRD and EMFF for 2014-2020 establishes in *Article 55.4* that the Ex-ante Evaluation shall include, where applicable, the requirements for the elaboration of the Strategic Environmental Assessment.

The requirements set out in *Directive 2001/42/EEC* of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment (SEA Directive), focus on the obligation by the Member States of assessing the effects of certain plans and programmes on the environment. Thus, the Environmental Assessment is configured as a key prevention tool for the planning and programming processes to incorporate the environmental horizontal principle.

However, Annex I of the "*Guidance Document on the Ex-ante Evaluation, Monitoring and Evaluation of the European Cohesion Policy*" provides that, for the programmes not covered by *Article 3 (2) of Directive 2001/42/EE*, the environmental authorities of the Member States must ascertain the possible existence of significant environmental effects. In principle, most of the programmes financed by the ERDF and the Cohesion Fund will require the Strategic Environmental Assessment. On the other hand, it is likely that, in principle, the Strategic Environmental Assessment is not required for programmes co-financed by the ESF or European Territorial Cooperation Programmes.

The Transnational Cooperation Operational Programme – Atlantic Area 2014-2020

The Transnational Cooperation Programme of the Atlantic Area 2014-2020 responds to the scope and content of the programmes referred to in *Article 8 of Regulation (EU) No 1299/2013 laying down specific provisions on the support of the European Fund for Regional Development on the European Territorial Cooperation objective*.

In this context, a total of four Thematic Objectives and six Investment Priorities have been selected, which were organised into four Priority Axes, hence providing the Programme structure a high level of simplification and transparency.

The planned actions are characterised as intangible, pro-active and with a strategic dimension, not being noticeable possible cases to be subject to Ordinary Environmental Impact Assessment, an aspect that can be reinforced through the completion of requirements that are specific to the different calls.

These actions respond to the OP environmental objectives standing out, for its horizontal nature, the Specific Objectives linked to Axes 2, 3 and 4 and Thematic Objectives 4, 5 and 6 and, with a more indirect nature, those relating to the Axel 1 and the Thematic Objective 1. Such Specific Objectives have full consistency with the EU environmental strategy and cover almost all of the most important environmental areas. However, the contribution of

the OP to the achievement of this strategy is limited by the financial dimension of the planned actions.

Characterisation of the environmental starting point

The territory covered by the Cooperation Programme comprises the eligible regions from five European Union's countries with Atlantic coast: Spain, France, Ireland, Portugal, and the United Kingdom. It presents predominantly agricultural characteristics, with a few highly urbanized areas (United Kingdom), and numerous natural and semi-natural habitats scattered, isolated and fragmented.

The Atlantic Area highlights the predominance of protected areas in the Iberian Peninsula and the United Kingdom. As regards marine sites areas under the Natura 2000 protection, those on the West coast of France and the United Kingdom stand out.

This transnational cooperation area is entirely bathed by the Atlantic Ocean. The Atlantic marine waters' quality is, on average, one of the best in Europe, though with serious local problems, especially in estuaries and areas with high industrial concentration. In general, the state of the coast in the Atlantic Area is good, with some exceptions in the cases of Portugal and France.

Although water quality in the Atlantic Area is better than in other parts of Europe, one must consider that it is a place of river basin drain, which carries significant carry-over contaminant flows. Mainly, the surface water quality is affected by the presence of nitrogen and phosphorus.

The integrated management of all water resources turns out essential and a priority for the Transnational Atlantic Area. The increase in population, industrialisation, the intensification of agriculture, power generation and transportation, pipeline and construction of dams, and the growth of recreational use have increased significantly the pressures on European inland waters. In addition, there are other problems such as droughts and floods.

The trend toward climate instability is exacerbating the risks of natural disasters, both in coastal areas and in the innermost areas. Are standing out due to their higher incidence: the risk of flooding in the United Kingdom and Northwest of France; fire in south-western France and the Iberian Peninsula; earthquakes in southern Spain, the Pyrenees and Portugal; or drought in southern France, Spain and Portugal.

Climate change as regards both prevention and the mitigation of effects is a general priority of the Atlantic Area. The biggest potential negative impact occurs in the Iberian Peninsula (Algarve, Alentejo, Centro and Norte of Portugal, Galicia, Asturias, Cantabria, Cáceres, Burgos and La Rioja in Spain). However, in the regions of France, the United Kingdom and Ireland the negative impacts are "low" or "moderate".

Coastal areas and the coast of the European Atlantic Area are potentially vulnerable areas to rising sea levels caused by climate change, related flooding and erosion. Thus, on the Atlantic coast of Andalucía, western France and with less relevance in Portugal, southern United Kingdom and Ireland, the sea level rise would affect the coastline.

Waste production and treatment show major differences by Member State. The *per capita* waste generation (excluding large mineral) appears especially significant in Ireland, Portugal and the United Kingdom, clearly falling below the European average both in France and in Spain. In turn, the tendency of the data related to waste treatment in the past decade points to an appreciable improvement in terms of sustainability.

Anticipated effects of the OP and corrective measures

The effects on the environment and the environmental objectives of the European Union generated by the OP are limited by the type of actions implemented, the thematic and territorial specificity and financial dimension.

In any case, it is not expected those actions to be negative and their impact will always be indirect and marginal, but they are much more relevant in those actions focusing on environmental aspects.

The general conclusion draws a limited relevance of the expected effects and the consideration of potential determinants restricted to two specific areas amongst the criteria to determine the significance of the possible effects on the environment set out in *Annex II of Directive 2001/42/EEC*:

- + The fact that the Programme fixes a framework for the approval of projects. In this respect, however, the projects will be approved in calls, which will determine the conditions of access, in addition to the particular type of projects that, by their nature, are only marginally subject to an *Environmental Impact Assessment*.
- + Potential effects on areas and landscapes with recognised protection extent.

More specifically, in Axis 1, the particular characteristics of the planned standard actions, the presence of public research and innovation institutions (which has been constant throughout history and is expected to remain for the next programming period) and the high level of control and environmental management in public and in private innovation centres, allow to assess the direct environmental risk as reduced.

In turn, Axis 2 presents mostly positive effects, with an emphasis on the reduction of fossil fuels consumption at the origin of greenhouse gases emission (GHG), and therefore responsible for climate change.

The Specific Objective of Axis 3 has a positive impact on a wide range of environmental issues, though in a marginal and timely manner, with a localised impact on the territory and no cumulative effects.

The expected effects of Axis 4 actions will have a particular impact on the natural and cultural heritage, although the impact will be of a particular nature (associated with specific actions), as well as indirect and small sized (proportional in all cases to the financial dimension of the co-financed actions).

Consequently, and in accordance with the provisions of *Article 3 of Directive 2001/42/EC*, it cannot be concluded that the Transnational Cooperation Programme of the Atlantic Area 2014-2020 has significant negative effects on the environment.

To the extent that the OP is neither expected to generate significant environmental impacts nor to strongly influence the surrounding environment, it is not considered significant to raise preventive measures. However, in order to promote the achievement of the potential positive effects and eliminate the potential negative effects that a project could generate in a timely manner, it is recommended to incorporate elements of environmental integration to select the operations for each call.

Planned measures for the Programme's environmental monitoring

The established environmental monitoring system has been integrated within the overall monitoring process of the OP, based on two fundamental references and simplifying the reporting requirements:

- + Quantification and monitoring of selected indicators of productivity common to the Objective of European Territorial Cooperation proposed in the *Annex of Regulation (EU) N ° 1299/2013* and selected under the OP, have been considered relevant by the Ex Ante evaluation;
- + Giving attention to actions intended to promote sustainable development by the Monitoring Committee.

2. INTRODUCTION

The Strategic Environmental Assessment is carried out under the direction of the Managing Authority of the Programme (Norte Regional Coordination and Development Commission - CCDR-N), based on the European regulatory framework (*Directive 2001/42/EC*) and its transposition at the national level in the Member States participating in the Operational Programme of the Atlantic Area (AA-OP): United Kingdom, France, Ireland, Portugal and Spain.

2.1. REGULATORY REQUIREMENTS

Regulation (EU) No. 1303/2013 of the European Parliament and the Council laying down common provisions on the ERDF, ESF, Cohesion Fund, EAFRD and EMFF for the period 2014-2020 determines in Article 55.4 that the Ex-ante evaluation shall include, where applicable, the requirements for the elaboration of the Strategic Environmental Assessment.

These requirements set out in *Directive 2001/42/EEC* of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment (SEA Directive), focus on the obligation of Member States to assess the effects of certain plans and programmes on the environment. Thus, this **Environmental Assessment** configures a key prevention tool for the planning and programming processes to incorporate the environmental horizontal principle.

The purpose of the SEA Directive is "*to provide a high level of environmental protection and contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development*".

Under such Directive and taking into account the specificities that its transposition to the national legislative areas of the United Kingdom, France, Ireland, Portugal and Spain has taken, the corresponding process was adopted to submit for the consideration of environmental authorities the need to carry out a *Strategic Environmental Assessment of the Transnational Cooperation Programme of the Atlantic Area for 2014-2020*.

The following evaluation process complies with the regulations of each country integrated in the cooperation area:

- + Spain: Law 21/2013 of Environmental Assessment, which unifies the community right around environmental assessment procedures laid down in *Directive 2001/42/EC* on the assessment of the effects of certain plans and programmes on the environment.

- ✚ France: L'Ordonnance n° 2004-489 du 3 juin 2004 portant transposition de la Directive 2001/42/ CE du Parlement Européen et du Conseil du 27 juin 2001 relative à l'évaluation des incidences de certains plans et programmes sur l'environnement.
- ✚ Portugal: Decree - Law No. 232/2007, of June 15, as amended by Decree- Law No 58/2011 of May 4, transposing Directive 2001/42/EC.
- ✚ United Kingdom: There is specific legislation for each of the countries comprising it:
 - ✚ The Environmental Assessment of Plans and Programmes Regulations 2004 (Statutory Instrument 2004 No. 1633);
 - ✚ The Environmental Assessment of Plans and Programmes (Northern Ireland) Regulations 2004 (Statutory Rule 2004 No. 280);
 - ✚ The Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 (Scottish Statutory Instrument No. 258);
 - ✚ The Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 (Welsh Statutory Instrument No. 1656 (W 170)).

The first of the above regulations apply to any plan or programme of England and each of the territories that make up the United Kingdom, excluding Northern Ireland, Scotland and Wales.

On the other hand, "The Environmental Assessment (Scotland) Act 2005 came into force in February 20, 2006, repealing the previous one of 2004.

- ✚ Ireland: "National Regulations, S.I. No. 435 of 2004 (European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004" and "S.I. No. 436 of 2004 (Planning and Development (Strategic Environmental Assessment) Regulations 2004" amended by "S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011)" and "S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011)" respectively.

2.2. PROCEDURE ESTABLISHED FOR THE EVALUATION OF THE RELEVANCE OF THE STRATEGIC ENVIRONMENTAL ASSESSMENT

The procedure established starts from the consultation by the Managing Authority to the Public Administrations that in each country will perform the processes technical analysis and, if necessary, that will proceed to the formulation of strategic policy statements to

determine the possibility of initiating an assessment process on the appropriateness of conducting a Strategic Environmental Evaluation.

The process is structured in two phases:

✚ **PHASE 1:** Preparation and delivery of the *Preliminary Report* to the Environmental Authorities of each Member State

For this purpose, the Working Group of the AA-OP 2014-2020 agreed to start an analysis on the Operational Programme from the perspective of its potential environmental impact, counting on the support of the consultant company hired to prepare the Ex - ante evaluation and Strategic Environmental Assessment of the OP (*Regio Plus Consulting*).

This report is the result of this process and aims to respond to the regulatory requirements of *Directive 2001/42/EEC* and the particularities of their transposition into national legislation, providing the information necessary for the adoption of a resolution by the corresponding Environmental Authority in relation to the need of approaching a Strategic Environmental Assessment of the AA-OP 2014-2020.

✚ **PHASE 2:** Adoption of a resolution by the Environmental Authorities

The Environmental Authorities had studied the preliminary environmental document to determine if the OP can have significant effects on the environment, according to the criteria set out in *Annex II of Directive 2001/42/EEC*.

- ✚ The Environmental Authority, in the case of Spain, will submit this document to a first public consultation of the concerned Public Administrations and stakeholders, who will be given 45 days to respond.
- ✚ In the case of the United Kingdom, in the area of the Programmes from other Member States, which definition and development involve the United Kingdom, the competent Authority will request information about the potential environmental effects of implementing the plan and the measures envisaged to reduce or eliminate such effects. The present report responds to those requirements, collecting the requirements established by the SEA Directive.

The second phase will proceed by informing the Public Authorities concerned and the public affected and/or interested, and granting the time that the Managing Authority and the competent Authority consensually consider appropriate for conducting relevant inputs (taking into consideration that the public consultation must end no later than 28 days before the end of that deadline).

- ✚ Finally, in the cases of France and Portugal, it is not expected any consultation in this phase.

Should it be concluded that the Programme has significant effects on the environment, in a period of twenty days in Portugal, two months in the case of France, or three months in the case of Spain, the environmental bodies will develop the "Scope Document", which determines the content, level of detail, environmental criteria, indicators of environmental objectives and scope of the consultations that shall integrate the so-called "Pre-Rapport" in France, "Estudio Ambiental Estratégico" in Spain, or "Relatório Ambiental" in Portugal.

If the environmental authority of a country considers that the OP has no significant effect on the environment of that country, it will produce a resolution, which will finalise the Strategic Environmental Assessment process in that country with no requirement to go to the last phase.

2.3. CONTENT OF THE REPORT

This **Report on the Relevance of the Strategic Environmental Assessment** includes, in response to the regulatory requirements laid down in *Directive 2001/42/EEC* and related transpositions to national legal framework, the following aspects:

- + The planning objectives.
- + The scope and content of the proposed plan and its reasonable alternatives, technically and environmentally feasible.
- + The expected development of the Programme.
- + A characterisation of the environment state before the development of the Programme in the affected territory.
- + The expected environmental impacts and, where appropriate, their quantification.
- + The anticipated impacts on concurrent sectoral and territorial plans.
- + The motivation for the implementation of the strategic environmental assessment process.
- + A summary of the reasons for selecting the alternatives considered.
- + The measures envisaged to prevent, reduce, and as far as possible, to correct any significant negative effect on the environment regarding the Programme implementation, taking into account climate change.
- + A description of the measures envisaged for the Programme environmental monitoring.

3. THE PLANNING OBJECTIVES

Europe 2020 is the EU's growth strategy for the current decade, which aims to come out stronger from the economic and financial crisis affecting the continent. It proposes three mutually reinforcing objectives:

- + *Smart growth*: development of an economy based on knowledge and innovation;
- + *Sustainable growth*: promotion of a greener and more competitive economy making a more efficient use of resources;
- + *Inclusive growth*: fostering an economy with high employment level presenting social and territorial cohesion.

These objectives represent the direction that should be taken by the various Programmes co-financed by the Funds of the Common Strategic Framework (CSF), including the European Regional Development Fund (ERDF) under the Territorial Cooperation objective.

Thus, the AA-OP must jointly face the Cooperation Area problems by facing the main weaknesses and defining a formula of intervention that enhances the consolidation of a model of smart, sustainable and inclusive growth through an approach based on territorial cooperation.

The CSF sets 11 Thematic Objectives (Table 1), which guide the programming process with the intention that Member States and regions to determine their investment priorities.

At least 80% of the ERDF contribution will focus on up to four of these Thematic Objectives, according to *Article 6 of Regulation (EU) No 1299/2013* laying down specific provisions establishing the ERDF support to the objective of European Territorial Cooperation.

TABLE 1. ERDF INVESTMENT PRIORITIES BY THEMATIC OBJECTIVES

THEMATIC OBJECTIVES	INVESTMENT PRIORITIES
Boosting research, technological development and innovation.	<p>The improvement of research infrastructures and innovation (R&I) and the ability to develop excellence in R+i matters, and the promotion of competence centres, especially those of European interest.</p> <p>Encouraging business investment in R&I, developing linkages and synergies between companies, research and development centres and the higher education sector, by encouraging investment in the development of products and services, technology transfer, social innovation, eco-innovation, public service applications, stimulating demand, networking, clustering and open innovation through smart specialization, and by supporting technological and applied research, pilot actions, early product validation, advanced manufacturing capabilities and first production, particularly in key enabling technologies and diffusion of general purpose technologies .</p>
Improving the use and quality of information and communication technologies and related access.	<p>✦ The expansion of broadband deployment and diffusion of high-speed networking and support the adoption of emerging technologies and networking for the digital economy.</p> <p>✦ The development of ICT products and services, e-commerce, and greater demand for such technologies.</p> <p>✦ Strengthening the applications of information technology and communication for e-government, e-learning, e-inclusion, e-culture and e-health.</p>
Improving SMEs competitiveness.	<p>✦ The promotion of entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new businesses, including business incubators.</p> <p>✦ The development and implementation of new business models for SMEs, in particular for their internationalization.</p> <p>✦ Support for the creation and expansion of advanced capabilities for product and service development.</p> <p>✦ Supporting the capacity of SMEs to grow into regional, national and international markets, and to engage in innovation processes.</p>
Encouraging the transition to a low carbon economy in all sectors.	<p>✦ Promoting the production and distribution of energy from renewable sources.</p> <p>✦ The promotion of energy efficiency and renewable energy use by companies.</p> <p>✦ The support to energy efficiency, smart energy management and renewable energy use in public infrastructure, including public buildings, and homes.</p> <p>✦ The development and implementation of smart distribution systems that operate in networks with low and medium voltage.</p> <p>✦ The promotion of carbon reduction strategies for all types of territory, especially in urban areas, including the promotion of sustainable urban multimodal mobility and adaptation measures with mitigation effect.</p> <p>✦ The promotion of research and innovation in technologies with low carbon emissions and the adoption thereof.</p> <p>✦ Promoting the use of combined heat and high efficiency energy, based on useful heat demand.</p>
Adaptation to climate change and risk management and prevention	<p>✦ The investment support for adaptation to climate change, including ecosystem-based approaches.</p> <p>✦ Promoting investment to address specific risks, ensuring resilience to natural disasters and developing disaster management systems.</p>

THEMATIC OBJECTIVES	INVESTMENT PRIORITIES
Preserving and protecting the environment and promoting resource efficiency	✦ The investment in the waste sector to meet the requirements of the EU acquis in the field of environment and to respond to the needs, identified by the Member States, of an investment that goes beyond those requirements.
	✦ Investment in the water sector to meet the requirements of the EU acquis in the field of environment and to respond to the needs, identified by the Member States, of an investment that goes beyond those requirements.
	✦ Conservation, protection, promotion and development of natural and cultural heritage.
	✦ The protection and restoration of biodiversity and soil and promoting ecosystem services
	✦ Actions to improve the urban environment, revitalize cities, rehabilitate and decontaminate industrial sites (including conversion area), reduce air pollution and promote measures to reduce noise.
	✦ Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector and the water sector, regarding the ground or reduction of air pollution.
	✦ Supporting industrial transition to an efficient economy in the use of resources, promoting green growth, eco-innovation and environmental impact management in the public and private sectors.
Promoting sustainable transport and removing bottlenecks in key network infrastructures.	✦ Support for a single European multimodal transport investing in the TEN- T.
	✦ Improving regional mobility by connecting secondary and tertiary, TEN -T infrastructure nodes, including multi-modal nodes.
	✦ The development and improvement of the transport systems respecting the environment and with low- carbon emissions, in order to promote sustainable regional and local mobility.
	✦ The design and rehabilitation of a comprehensive railway network, high-quality and interoperable, and promoting measures to reduce noise.
	✦ Improving energy efficiency and security of supply by creating intelligent systems of distribution, storage and transmission of energy and by integrating distributed generation from renewable sources.
Promoting sustainability and quality in employment and supporting labour mobility.	✦ Supporting the development of business incubators and investment aid in favour of self-employment, micro-enterprises and job creation.
	✦ Supporting the employment -generating growth through the development of endogenous potential as part of a territorial strategy for specific areas, including the conversion of declining industrial regions and improving accessibility to specific natural and cultural resources and related development.
	✦ Providing support to local development initiatives and aid for structures that provide neighbourhood services to create jobs.
	✦ Investment in infrastructure for employment services.
Promoting social inclusion and combating poverty and all forms of discrimination	✦ Investment in social and health infrastructures that contribute to national, regional and local development and reduce health inequalities and promote social inclusion through improved access to social, cultural and recreational services and the transition from institutional services to local services.
	✦ Supporting the physical, economic and social regeneration of disadvantaged urban communities and rural areas.
	✦ Providing support to social enterprises.
	✦ Continued investment in the context of local community development strategies.
Invest in education, training and vocational training for skills acquisition and lifelong learning.	
Improve institutional capacity of public authorities and stakeholders and efficiency of public administration.	

4. OP SCOPE AND CONTENT AND POSSIBLE ALTERNATIVES

4.1. TERRITORIAL AND TIME HORIZON OF THE PROGRAMME

The **territorial scope** of the AA-OP 2014-2020 covers the following territories:

Country	ELIGIBLE REGIONS
Spain	ES11 Galicia
	ES12 Principado de Asturias
	ES13 Cantabria
	ES21 País Vasco
	ES22 Comunidad Foral de Navarra
	ES61 Andalucía:
	ES612 Cádiz
	ES615 Huelva
France	ES618 Sevilla
	ES70 Islas Canarias
	FR23 Haute-Normandie
	FR25 Basse-Normandie
	FR51 Pays de la Loire
	FR52 Bretagne
Ireland	FR53 Poitou-Charentes
	FR61 Aquitaine
Portugal	IE01 Border, Midland y Western
	IE02 Southern and Eastern
United Kingdom	PT11 Norte
	PT15 Algarve
	PT16 Centro
	PT17 Lisboa
	PT18 Alentejo
	PT20 Açores
	PT30 Madeira
United Kingdom	UKD1 Cumbria
	UKD2 Cheshire
	UKD3 Greater Manchester
	UKD4 Lancashire
	UKD5 Merseyside
	UKK1 Gloucestershire, Wiltshire y North Somerset
	UKK2 Dorset y Somerset
	UKK3 Cornwall e Isles of Scilly
	UKK4 Devon
	UKL1 West Wales y The Valleys
	UKL2 East Wales
	UKM3 South Western Scotland
	UKM4 Highlands y Islands
	UKN0 Northern Ireland

The **socio-economic characteristics of the area** are detailed in the territorial context and SWOT analysis made in the programming phase, which are attached to this document. The main results are summarised as follows:

✚ Territory and accessibility:

- ✚ The cooperation area of the Atlantic Area covers a heterogeneous part of Europe, with a major north- south division in terms of demographics and accessibility.
- ✚ It has a significant maritime dimension.
- ✚ It is characterised as a rural and semi-rural territory.
- ✚ The accessibility is a problem in great part of the cooperation area, which is considered a central element in the development opportunities for the Atlantic Area.
- ✚ The geographical distribution of the population is characterised by significant disparity, combining strong dynamic areas with areas undergoing a population loss (particularly rural areas).

✚ Employment:

- ✚ The employment rate is below the objectives of the Europe 2020 Strategy in all regions of the Atlantic Area.
- ✚ The long-term unemployment, in turn, has a different impact, clearly influenced by the national level. Thus, peripheral areas are particularly affected, especially the Northeast and southern Spain.
- ✚ Significant North-South gap in the levels of education, with some concerning figures in some parts of Portugal and Spain.

✚ Economic development and competitiveness:

- ✚ There is a decline in the economic situation of the area, due to the current economic crisis affecting particularly the southern regions, which can lead to an increased North-South gap.
- ✚ There is a clear concentration of economic dynamism mainly in urban areas.
- ✚ Regional competitiveness is below the whole of Western Europe. However, the reality differs significantly between regions of the Atlantic Area. While the Atlantic regions of Spain and Portugal show very low levels, France and Ireland register an intermediate level, while the regions of the United Kingdom have a better performance.

- ✦ The level of expenditure in R&D is average or below the average of European values. The effort by the majority of the Atlantic regions is estimated between 1% and 2% of their GDP, far from the target of the Europe 2020 Strategy, set at 3%. Additionally, in recent years these values show a fall as a result of the crisis.

There is a clear disparity between supply and demand for market research, due to the lack of cooperation between the public and the private sector.

- ✦ In turn, innovation levels are relatively low, especially in those traditional economic sectors that offer the greatest potential for growth and job creation in the Atlantic Area.

✦ *Environment, natural resources and energy efficiency:*

- ✦ The Atlantic Area has a well preserved natural heritage, in spite of the low percentage of territory under the Natura 2000 Network.
- ✦ It presents a high exposure to climate change, due to the large coastal area of the Atlantic region and a reduced capacity of adaptation.
- ✦ There are a number of additional factors that contribute to the increased exposure of Atlantic territories to climate change impacts, such as pollution from industrial activities, transportation, as well as production and consumption patterns.
- ✦ For its territorial and climatic characteristics, the Atlantic Area has significant advantages as regards renewable energy. However, this potential has not been fully exploited. In addition, a limited efficiency in the use of natural resources is observed as well as low levels of development and exploitation of renewable energy.

From **a time perspective**, the programme will be implemented during the seven years that correspond to the programming period 2014-2020. The expenditure is eligible from 1 January of 2014 until 31 December of 2023, due to the impact of rule N+3 on the actions implementation. (*Article 136 of Regulation (EU) N°1303/2013*).

4.2. OP SCOPE AND CONTENT

The AA-OP 2014-2020 responds to the scope and content of the Programmes referred to in *Article 8 of Regulation (EU) No 1299/2013 laying down specific provisions for the support of the European Fund of Regional Development for European Territorial Cooperation*, which are structured into the following elements:

- a) A justification for the choice of the thematic objectives, investment priorities and the related financial allocations based on an analysis of the cooperation area needs and the chosen strategy as a result of those needs.
- b) A structure by priority axis, with the definition of the following topics for each one of the Axis:
 - i. Investment priorities and corresponding specific objectives.
 - ii. The expected results for the specific objectives and associated outcome indicators, with a reference value and a target value.
 - iii. A description of the type of actions and examples, subject to assistance under each investment priority and its expected contribution to the specific objectives, including the guiding principles for the selection of operations and identification of the specific selected territories and type of beneficiaries.
 - iv. The common and specific indicators of productivity for each investment priority.
 - v. The determination of the implementing stages, the financial and productivity indicators and, where appropriate, the outcome indicators to be used as milestones and objectives of the performance framework.
 - vi. A summary of the intended use of technical assistance.
 - vii. The corresponding intervention categories and an indicative breakdown of the resources programmed.
- c) A financing plan.

4.2.1. Strategic definition of the Atlantic Area Operational Transnational Cooperation Programme 2014-2020

The strategic formulation of the AA-OP 2014-2020 is based on the selection of the Thematic Objectives and Investment Priorities set out in *Article 5 of Regulation (EU) No. 1301/2013 on the ERDF* (see previous Table 1).

Additionally, for Transnational Cooperation Programmes, the ERDF may also support the improvement of the institutional capacity of public authorities and stakeholders and the efficiency of public administration through the development and coordination of macro-regional strategies and sea basins.

The proposed strategy is based on the selection of Thematic Objectives and Investment Priorities, which highlights the prioritization of the following core areas of intervention: R&D+I (green growth and eco-innovation, included), renewable energy, climate change, environmental efficiency and conservation and protection of the natural and cultural heritage. This framework comprises a selection of five Thematic Objectives and six Investment Priorities.

This strategy is structured in four Priority Axes:

- ✦ *Axis 1:* Stimulating innovation and competitiveness in the Atlantic Area.
- ✦ *Axis 2:* Fostering resource efficiency.
- ✦ *Axis 3:* Strengthening risk management systems.
- ✦ *Axis 4:* Enhancing biodiversity and the natural and cultural assets.
- ✦ *Axis 5:* Technical Assistance.

Considering that Axis 5 corresponds to Technical Assistance, the four Axis left present the structure shown by the following table:

TABLE 2. STRATEGY DESCRIPTION OF THE TRANSNATIONAL COOPERATION OP OF THE ATLANTIC AREA 2014-2020

Axis	T.O.	INVESTMENT PRIORITIES	SPECIFIC OBJECTIVES
Axis 1	T.O. 1 <u>Promoting research, technological development and innovation</u>	1B. Promoting business investment in innovation and research, and developing links and synergies between enterprises, R&D centres and higher education, in particular products and services development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialization and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies	<p>SO.1.1. Enhancing innovation capacity through cooperation to foster competitiveness</p> <p>SO.1.2. Strengthening the transfer of innovation results to facilitate the emergence of new products, services and processes</p>
Axis 2	T.O. 4 <u>Encouraging the transition to a low-carbon economy in all sectors</u>	<p>4A. Promoting the production and distribution of energy derived from renewable sources</p> <p>6G. Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors. Possibility of further exploiting the green economy model profiting from the existing natural resources in the Atlantic Area</p>	<p>SO.2.1. Fostering renewable energies and energy efficiency</p> <p>SO.2.2. Fostering Green Growth, eco-innovation and environmental efficiency</p>
Axis 3	T.O. 5 <u>Promoting the adaptation to climate change and risk prevention and management</u>	5B. Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems	SO.3.1. Strengthening risks management systems
Axis 4	T.O. 6 <u>Preserving and protecting the environment and promoting resource efficiency</u>	<p>6C. Conserving, protecting, promoting and developing natural and cultural heritage</p> <p>6D. Protecting and restoring biodiversity, soil protection and restoration, and promoting ecosystem services, including Natura 2000 and green infrastructures</p>	<p>SO.4.1. Improving the protection of biodiversity and enhancing ecosystems services</p> <p>SO.4.2. Enhancing natural and cultural assets to stimulate economic development</p>

4.2.2. Actions typology

The proposed AA-OP places the planned actions typology to be developed over the period 2014-2020. Table 3 presents a list of the actions for each of the Axes of the Programme (excluding Axis 5 Technical Assistance), which differ depending on the Specific Objective.

TABLE 3. TYPE OF PLANNED ACTIONS BY INVESTMENT PRIORITY IN THE EUROPEAN TERRITORIAL COOPERATION OP OF THE ATLANTIC AREA 2014-2020

Axis	IP	SO	TYPE OF ACTIONS
1	1B	<u>1.1</u>	<ul style="list-style-type: none"> ✦ Establishment and further strengthening of territorial innovation networks, SME networks and clusters, also supporting their internationalization ✦ Development of cooperation schemes contributing to organizing the development of scientific resource centres, business incubators, clusters, business networks, research and innovation infrastructures and regional poles of excellence ✦ Stimulation of regional triple helix and quadruple helix cooperation ✦ Enhancement of intersectoral cooperation and interlinks within and between supply chains for the launch of innovative initiatives ✦ Development of regional innovation chains ✦ Development of pilot actions on knowledge exchange and collaboration tools: e.g. social innovation platforms, social innovation clusters, observatories, web-based platforms ✦ Development of social enterprises and social incubators in territorial collaborative networks ✦ Development of public-private partnerships to work in smart specialization areas, setting up territorial frameworks and platforms for the coordination of innovation policy, including the coordination of regional RIS3 strategies, innovation governance initiatives, competence networks, resources pooling structures or integrated supply chains ✦ Increasing skills of employees in the business sector (particularly SMEs) regarding novel technologies (e.g. eco-innovation, low-carbon technologies, ICT, key enabling technologies, etc.), innovative products, services or processes and social innovation contributing to regional smart specialization strategies ✦ Support of programmes for training for trainers and develop curricula, and adapt education and training systems for the innovation uptake and diffusion, and the provision of capacity development mechanisms ✦ Development of technology transfer initiatives ✦ Development of strategies and tools to improve creativity and entrepreneurial mind-sets.
		<u>1.2</u>	<ul style="list-style-type: none"> ✦ Development of common mechanisms to ensure cost-efficient exploitation of resources and best use of the research results ✦ Designing and demonstrating new products and services addressing social needs (social innovation) ✦ Designing and demonstrating new processes and tools addressing the efficiency of public services ✦ Development of territorial knowledge transfer models, enhancing the transfer of RTD results from research institutions to the business sector (in particular SMEs) leading to new services and products ✦ Development of knowledge and information tools addressed to business internationalization ✦ Development of networking mechanisms and platforms for the generation of business consortia ✦ Development of data sharing and market information systems ✦ Realization of focused market watch and gap analysis ✦ Development of intelligence and scoping tools for transnational innovation partnerships

Axis	IP	SO	TYPE OF ACTIONS
			<ul style="list-style-type: none"> ✦ Development of Knowledge Intensive Services (KIS) and products ✦ Development of innovative products through cooperation approaches (end-user-involvement, co-design, open innovation ...) ✦ Transfer and development of models or solutions enabling R&D support for SME demand-driven innovation ✦ Development of demonstration projects to test the market readiness
2	4.a)	<u>2.1</u>	<ul style="list-style-type: none"> ✦ Development of technological, legal, educational, financial and organisational solutions in the field of renewable energy ✦ Identification of existing and potential local value chain and key differentiators ✦ Development of joint mapping of competencies versus expected needs from project developers and technology suppliers ✦ Enhancement of cooperation between private, public and research actors throughout the whole value chain related to energy (R&D demonstration, feasibility & project planning, manufacturing, installation, operation & maintenance, distribution, environmental impact assessment...) ✦ Development of networks of clusters on (marine) renewable energies in the Atlantic Area ✦ Improvement of spatial management to enhance the use of offshore and onshore renewable energies ✦ Development of peer reviews and networking of regions, economic agencies and organisations specialized in the development of renewable energies to support the delivery of existing low carbon strategies ✦ Enhancement of coordination and integration of the production and distribution systems of different kinds of renewable energy ✦ Joint actions to support the grid integration of offshore renewable energies ✦ Awareness raising on the relevance and business opportunities of renewable energy ✦ Development of information, communication and awareness raising campaigns to increase social acceptance of renewable energy ✦ Supporting consumer and local communities empowerment (micro-generation, smart metering ✦ Development of local policies and tools for the promotion of ultra-low energy buildings, high energy savings and super-efficient appliances.
	6.g)	<u>2.2</u>	<ul style="list-style-type: none"> ✦ Development of mechanisms to convey the information on the need of eco-innovation products and services to the relevant actors of the sector ✦ Development of measures and tools to stimulate the adaptation of policies and behaviours supporting green growth and eco-innovation ✦ Awards and awareness-raising such as information events, competitions and awards to help to raise awareness and recognize positive eco-innovation behaviour ✦ Development of business management support instruments, such as analysis tools for the assessment of the environmental performance of products and services, and environmental management, life cycle management, design for environment and environmental supply chain management tools ✦ Promoting the adoption of the agenda 21 in the private sector ✦ Development of circular economy / cradle-to-cradle principles that deliver new products or ways-of-working to achieve sustainable economic growth ✦ Development of mechanisms to reduce the amount of resources (e.g. land, water, minerals) used in industrial processes

Axis	IP	SO	TYPE OF ACTIONS
			<ul style="list-style-type: none"> ✦ Development of solutions to reduce or recycle the waste outputs of industrial or domestic processes ✦ Development of actions to reduce the use of resources in businesses, administrations and organisation of major events such as festival and large conferences ✦ Introducing novel policy instruments for eco-innovation support that will create demand for eco-innovative products and services such as green public procurement and directly supporting eco-innovation in SMEs, including providing subsidies and advisory and technical support ✦ Development information systems addressed to consumers on the eco-efficiency performance of products and services
3	5.b)	3.1	<ul style="list-style-type: none"> ✦ Development of actions to prevent risks (environmental monitoring and prevention systems; tools to improve governance and coordination, crisis and emergency management and responses; tools for early detection; early warning systems; mapping; risk assessment...) ✦ Coordination of the use of GMES and surveillance systems to support threat and emergency response, coordinated use of IT infrastructure necessary to allow information sharing and interoperability between national surveillance networks and the Common Information sharing Environment at EU level ✦ Development of awareness-raising tools related to prevention and management of risks ✦ Development of local community empowerment to risk prevention, and recovery and regeneration actions ✦ Networking of technical and scientific resources available in the European Atlantic Area: joint production of data on the evolution of the coastline to facilitate its measurement along the Atlantic coast on the basis of comparable data. ✦ Development of capacity-building initiatives directed to actors involved in managing and preventing risks ✦ Dissemination of data and risk management tools ✦ Promote the interlinking of regional, coastal and ocean observation and maritime safety and coastal structures and their forecasting models ✦ Development of methodologies for the study, procedures, evaluation and compensation of damage linked to risks under this objective.
4	6.d)	4.1	<ul style="list-style-type: none"> ✦ Actions to identify, assess and develop ecosystem services and green infrastructures (resilience to pollution, carbon capture and storage, trophic chains balance and conservation of marine resources) ✦ Development of concerted management procedures concerning emblematic species or species with strong economic interest (fisheries resources, migratory species) and combating invasive species ✦ Development of pilot actions to test new solutions and methods concerning the preservation and restoration of biodiversity ✦ Development of initiatives aiming at mapping natural species habitats and the seabed ✦ Development of management and enhancement methods concerning natural Atlantic areas (including assessment of the ecosystem services provided) ✦ Development of methods for quality monitoring and enhancement of the coastal and inland waters ✦ Development of collecting and disseminating natural environmental data (environmental observatory network), modelling aimed at improving forecasts and environmental management ✦ Development of joint or comparative methodologies for defining and managing environmental protected areas (considering economic activities)

Axis	IP	SO	TYPE OF ACTIONS
			<ul style="list-style-type: none"> ✦ Assessment of marine/coastal areas management modalities and of the impact of new maritime economic activities ✦ Development of concerted strategies to combat macro waste
	6.c)	4.2	<ul style="list-style-type: none"> ✦ Development of common strategies, policies and initiatives capitalizing on the Atlantic cultural and natural heritage by public institutions, enterprises, NGOs and local population to convert natural resources and the cultural heritage in the unmistakable mark of the Atlantic Area, with a view to generate specific new products, services and tools having an economic impact at a local and regional level ✦ Development of joint actions to preserve the cultural heritage ✦ Development of cultural activities and events ✦ Development of cultural tourism and industries ✦ Enhance the competitiveness of small and medium sized cultural enterprises ✦ Development of marketing and promotion strategies for cultural activities ✦ Added value to existing cultural and heritage tourist attractions ✦ Encourage spillover effects between culture-based creativity and other sectors ✦ Development of initiatives to preserve and protect the Atlantic natural species, landscapes and sites of major natural interest contributing to the promotion of AA regions ✦ Development of joint initiatives to promote a territorial identity of the Atlantic cultural heritage as an asset to attract new visitors and develop new local jobs and economic activity ✦ Development of the creative and craft industries sector in the Atlantic Area ✦ Enhancement of the attractiveness of traditional economic and productive activities, jobs and services as a way to increase their economic valorisation, attract new visitors and develop new local jobs and economic activity ✦ Development of niche tourist attractions and products, including coastal, nautical, cruise, sports, rural and farm, gastronomy, wellness, cultural, Pilgrimage and religious events and business tourism ✦ Development of nautical activities, marine leisure (integrated development of a nautical sector, promoting the growth of economic activities in coastal areas, job creation, social integration and coastal zone preservation) ✦ Development of tools and exchange of know-how on protected site/areas management

Four general conclusions arise from the above:

- + The different types of actions are characterised by their strategic and pro-active nature;
- + Their dimension is generally reduced; therefore, the anticipated impacts associated are not expected to be meaningful (as discussed in more detail in Chapter 7 of this Report);
- + The type of actions that can have closer links, particularly through direct effects, to the compliance with both the environmental objectives of the Programme and the European Union, and some relevant effects on the environment are those from Axes 2, 3 and 4;
- + The type of actions expected under Axis 1 (Stimulating innovation and competitiveness in the Atlantic Area) may have an indirect influence, to the extent that the projects approved under this axis are directed to obtaining results that can support eco-innovation.

4.2.3. Horizontal principles

The proposed AA-OP 2014-2020 is fully consistent with the horizontal principles of partnership and governance at various levels, with the promotion of equality between men and women, non-discrimination and sustainable development. In this respect, the latter aspect is particularly relevant. Thus, the Programme promotes the production and distribution of renewable energy, promotes a joint response to address the consequences of climate change and the protection, fostering and development of natural and cultural heritage.

Furthermore, it supports the exploitation of synergies with regional Operational Programmes, as well as policy instruments of the Union, that serve to reduce climate change and improve adaptation, protecting the environment and efficient use of resources.

4.2.4. Environmental Objectives

The EU has established policy objectives that will last until 2050 in various areas as part of its Europe 2020 Strategy, among which are those related to the promotion of sustainable growth.

In the specific case of environmental objectives, these are reflected in the document *"Towards a green economy in Europe. EU environmental policy targets and objectives 2010–2050"* (EEA Report N° 8/2013), prepared by the European Environment Agency. This

document highlights nine areas comprising major European objectives for that timeframe, which are consistent with the EU regulatory framework.

From this perspective, the AA-OP 2014-2020 defines a set of Specific Objectives of environmental character in line with that purpose. It encompasses, particularly, Axes 2, 3 and 4, covering the Thematic Objectives 4, 5 and 6, to which five Specific Objectives are associated.

Table 4 shows the linkage between the EU strategic environmental objectives and the OP Objectives. Two main conclusions arise:

- ✦ The *full consistency of the environmental objectives set by the OP with the EU environmental strategy* for the period considered. Noteworthy, due to their horizontal nature, are the Specific Objectives connected to priorities 6.c)–SO 4.2– and 6.g) –SO 2.2.–and, above all, 1.b)–SO 1.1 and 1.2.

In order to encourage research, technological development, and innovation in environmental matters, there may be an effective contribution to the specified areas by the European Environment Agency, which are always consistent with the actions envisaged in the *Action Plan on Eco-innovation (EcoAP)*, which grants a horizontal nature to the Specific Objectives 1.1., 1.2. and 2.2.

In addition, the OP objectives are framed in the context defined by the *VII Environmental Action Programme of the European Union*, which is the main reference for addressing environmental and sustainability challenges. Thus, R&D+i is a very important part, highlighting its importance in the Multi-annual Financial Framework, as well as in the common agricultural and fisheries policies, cohesion policy, and the Horizon 2020 Programme.

In turn, Investment Priority 6.c.) aims to boost economic development and diversification through territorial programmes by investing in common environmental opportunities and in “green growth”. This objective raises the momentum for the “green economy”, promoting economic growth and ensuring, at the same time, that natural assets continue to provide the resources and environmental services necessary to enhance life quality. Therefore, it has a direct influence on all aspects that had been considered by the European Environment Agency through the promotion of:

- ✦ An economy encouraging the efficient use of natural resources and eco-efficiency.
 - ✦ An economy that invests in natural capital and it is based on biotechnologies.
 - ✦ A low carbon economy with renewable energy sources.
- ✦ *Considering as “relevant” all the areas considered by the European Environment Agency.* In particular, the areas with a great number of specific objectives in the OP are related to the reduction of pollutant emissions, such as lower emissions of greenhouse gases; and to a lesser extent, those linked to energy efficiency and renewable energy, in addition to the fields of biodiversity and chemicals.

TABLE 4. EU ENVIRONMENTAL OBJECTIVES (2010-2050) UNDER THE TRANSNATIONAL COOPERATION OP OF THE ATLANTIC AREA 2014-2020

		T.O. 1		T.O. 4		T.O. 5	T.O. 6	
		SO 1.1	SO 1.2	SO 2.1	SO 2.2	SO 3.1	SO 4.1	SO 4.2
ENERGY	Energy efficiency	+	+	+++	+			+
	Renewable energy	+	+	+++	+			+
GREENHOUSE GASES	Reduction of Greenhouse Gases	+	+	+	+	++		+
POLLUTION AND AIR QUALITY	Reduction of polluting emissions	+	+	+	+	+++		+
TRANSPORT	Reduction of Greenhouse Gases	+	+		+			+
	Reduction of air pollution	+	+		+			+
WASTE	Reuse, recycling and valuation	+	+		+			+
	Collection and Removal	+	+		+			+
	Generation	+	+		+			+
WATER	Reduction of water extraction	+	+		+			+
	Minimizing impacts of droughts and floods	+	+		+			+
	Considering first the cheapest options in the alternative water supply	+	+		+		+	+
RESPONSIBLE PRODUCTION AND CONSUMPTION	Consumption and production orientation towards environment friendly products	+	+		+++		+	+
CHEMICALS	Production, handling and use of chemicals so they not pose a significant threat to human health and the environment	+	+		+			+
BIODIVERSITY	Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society	+	+		+		+	+
	Reduce the direct pressures on biodiversity	+	+		+		+	+
	Improve the status of biodiversity by safeguarding ecosystems, species	+	+		+		+	+
	Increase the benefits of biodiversity and services for all	+	+		+		+	+
	Enhance the implementation through participatory planning, knowledge management and capacity building	+	+		+		+	+



Notable linkage



Weak linkage

Source: Own elaboration based on the EEA Report No 8/2013 and draft report of the European Cooperation OP of the Atlantic Area 2014-2020

4.3. REASONS FOR THE SELECTION OF THE ALTERNATIVES CONSIDERED

According to the intervention logic arisen from the analysis undertaken under the Ex Ante Evaluation, the selection of Thematic Objectives and Investment Priorities responds directly to the main weaknesses identified in the SWOT analysis.

Therefore, the substantiation thereof has a direct link to the main weaknesses and derived areas of intervention.

4.3.1. Thematic Objective 1: Promoting Research, Technological Development and Innovation

Investment Priority 1.b) intends *promoting business investment in R&D, developing linkages and synergies between companies, R&D centres and higher education sector, in particular by promoting investment in the development of products and services, technology transfer, social innovation, ecological innovation, the implementation of public service, stimulating demand, networking, clustering and open innovation through smart specialization, and by supporting technological and applied research, pilot lines, early action product validation, advanced manufacturing capabilities and first production, in particular, key enabling technologies and disseminating versatile technologies.*

This responds to the weaknesses and opportunities identified in the Cooperation Area as regards research, technological development and innovation.

TABLE 5. RATIONALE FOR THE SELECTION OF THE INVESTMENT PRIORITIES OF THEMATIC OBJECTIVE 1

PI	WEAKNESSES	OPPORTUNITIES
1B	<ul style="list-style-type: none"> ✦ Relatively low levels of innovation in a number of traditional economic sectors with a high potential to bring growth and jobs to the Atlantic Area ✦ Stagnant or decreasing levels of investment in R&D+i, which is partially explained by the severe economic crisis and the credit crunch ✦ Partial mismatch between R&D+i market demand and supply due mainly to limited support and cooperation between the private and the public sectors ✦ Low levels of competitiveness in the Atlantic Area with respect to the rest of Western Europe 	<ul style="list-style-type: none"> ✦ Different territorial patterns of innovation in different parts of the Atlantic Area provide an opportunity for synergies between regions with different innovation profiles that can be strengthened to further exploit complementarities ✦ Growth potential of the blue economy and maritime specialization: coastal tourism, aquaculture, yachting, naval and nautical industries, renewable offshore energy, blue biotechnologies

The Investment Priority is fully justified to the extent that it will allow to obtain important results on the following aspects:

- ✦ Increased cooperation and linkage (associations, networks...) between the public, private and social, research and innovation actors;

- + Promoting innovation in the key territorial areas of smart specialization and innovation opportunities;
- + Enhanced capabilities (skills and knowledge) of public and private bodies involved in R&D in relevant areas of smart specialization;
- + Increased capacities and innovation activities in SMEs;
- + Better knowledge of markets and business opportunities in the areas of highlighted smart specialization;
- + Better exploitation of research results for the development of new technologies, products and services by the productive sector;
- + Increased applied research in the economic sectors concerned, based on cooperative approaches.

To this is added the direct contribution to the Europe 2020 Strategy and the Action Plan of the Atlantic Strategy, as follows:

- + *Smart growth*: Contributes to strengthening research, promoting innovation and knowledge transfer, increased private sector participation in innovation processes, and strengthening the links between the actors involved and innovation.
- + *Sustainable growth*: Strengthening the blue economy, one of the Action Plan priority areas, in which marine renewable energy is included.

4.3.2. Thematic Objective 4: Encouraging a Low Level Carbon Emission Economy in all Sectors

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources provides a common framework for the promotion of energy from renewable sources, which has become an element of smart, sustainable and inclusive growth promoted by the Europe 2020 Strategy.

The Atlantic Area has a number of weaknesses that need to be addressed, but also a set of opportunities that open up opportunities for sustainable growth in the area (Table 6) and which use requires effective intervention.

TABLE 6. RATIONALE FOR THE SELECTION OF THE INVESTMENT PRIORITIES OF THEMATIC OBJECTIVE 4

IP	WEAKNESSES	OPPORTUNITIES
4A	<ul style="list-style-type: none"> ✦ Inefficient use of natural resources. ✦ Limited exploitation of the renewable offshore energies potential. ✦ Limited connection of offshore installations to the EU grid. ✦ Pollution and high impact of climate change. ✦ Limited capacity to adapt to climate change due to economic, socio-cultural, institutional and technological barriers. ✦ Need to improve educational commitment and right attitudes towards climate change and use of renewable and low carbon energies. ✦ Mismatch between R&D+i demand and supply due to limited cooperation and support by private and public actors. 	<ul style="list-style-type: none"> ✦ High potential for renewable offshore energy: wind, wave and tidal power, ocean thermal energy, etc., being the Atlantic Area the second main transnational area for wind power in Europe, and almost all the territory provides opportunities to promote wave power, although the take up is currently quite challenging. ✦ Exploitation of new potential market niches.

Such intervention may lead to the following results:

- ✦ Increased participation and use of local renewable energy sources;
- ✦ Greater regional integration of Low Carbon regional Strategies that promote the production and distribution of renewable energy;
- ✦ Improved spatial and organisational management and interaction to encourage the development of the Atlantic territories for the production of renewable energy;
- ✦ Increased levels of public and private investment in renewable energy production and related distribution;
- ✦ Increased awareness and knowledge of civil society, the business sector and other stakeholders on the needs and opportunities arising from renewable energy, contributing to a shift to an economy and society with low carbon emissions;
- ✦ Greater degree of energy self-sufficiency.

The OP focuses on the investment priority 4A, which aims to promote the production and distribution of energy from renewable sources, thereby contributing to the sustainable growth promoted by the Europe 2020 Strategy and the Action Plan of the Atlantic Area Strategy, to the extent that it benefits:

- ✦ Building a competitive low carbon economy that makes an efficient and sustainable use of resources and increases the use of renewable energy sources.
- ✦ The deployment of sustainable marine renewable energy by promoting research, development, and demonstration of clean technologies.

- ✦ The exploitation of renewable energy potential of coastal and marine resources in the Cooperation Area, focusing on the development of renewable energy in high seas.

4.3.3. Thematic Objective 5: Promoting the adaptation to climate change and risk management and prevention

Priority Investment 5.b) is aimed at encouraging investment to address specific risks, ensuring resilience to disasters and developing disaster management systems.

The planned measures focus on addressing the main weaknesses detected in the environmental field of the Atlantic Area and that largely cross national borders resulting on the need to approach transnational solutions. (Table 7).

TABLE 7. RATIONALE FOR THE SELECTION OF THE INVESTMENT PRIORITIES OF THEMATIC OBJECTIVE 5

IP	WEAKNESSES	OPPORTUNITIES
5B	<ul style="list-style-type: none"> ✦ Pollution deriving from industrial activities, transport and production and consumption patterns increase the exposure of the area to climate change impacts; ✦ Limited capacity to adapt to climate change due to economic, socio-cultural, institutional and technological barriers; ✦ Pollution and high potential impact of climate change in the Atlantic Area; ✦ Development of blue growth technologies pose environmental, social and legal potential risks; ✦ Existing risks of accidents related to maritime economic activities (shipwrecks, oil spills...); ✦ Challenge that clearly jumps the borders of the Member States and therefore calls for transnational nature solutions 	<ul style="list-style-type: none"> ✦ The existing cooperation tradition in this field given its strategic and territorial nature

Cooperation and, therefore, joint action, promote the achievement of outcomes such as strengthening the resilience and planning of the Atlantic regions for natural disasters management and the consequences of climate change. Its contribution to the Europe 2020 Strategy, particularly to sustainable growth, and to the Action Plan of the Atlantic Area Strategy is justified by:

- ✦ The strengthening of the economy resilience to climate risks, and the ability to prevent and respond to disasters;
- ✦ The development of tools and strategies to address the problems of climate change, including mitigation and adaptation strategies by developing partnerships to identify and monitor risks and natural disasters, including the development of improved predictive capabilities and risk assessments.

4.3.4. Thematic Objective 6: Preserving and protecting the environment and promoting resource efficiency

The Atlantic Area has a rich natural and cultural heritage and an important biodiversity that had largely served as a reference in developing the tourism sector. In this context, eco-innovation is an important factor for the cooperation area development.

Accordingly, the opportunities to be boosted for the consolidation of a sustainable growth model in the Atlantic Area have been identified, but they are also limited as a result of some related weaknesses.

TABLE 8. RATIONALE FOR THE SELECTION OF THE INVESTMENT PRIORITIES OF THE THEMATIC OBJECTIVE 6

PI	WEAKNESSES	OPPORTUNITIES
6C	✦ Need to secure its vast natural heritage and the richness of the existing natural resources;	✦ Relevant environmental heritage;
	✦ Further protecting the cultural heritage;	✦ Tourism as a major economic activity in the region;
6D	✦ An adequate response to the two challenges above will reinforce the attractiveness of the area;	✦ Growth potential of the blue economy and maritime specialization: coastal tourism, yachting;
	✦ Uneven levels of capacity to adapt to climate change;	✦ Potential for increasing the revenues from the tourism sector.
6G	✦ Uneven levels of tourism attraction in the Atlantic Area.	

In accordance with the above, the rationale for the programming under these Investment Priorities is focused on reaching a number of expected outcomes that improve the starting situation.

✦ In the particular case of the Investment Priority 6.c the planned improvement includes:

- ✦ Better use and preservation of natural and cultural assets of the Atlantic Area leading to increased interest for the area;
- ✦ Attracting new visitors;
- ✦ Generating new products and services that contribute to the economic development, creating local jobs and creating synergies that contribute to the progress and welfare of populations.

✦ As regards Investment Priority 6D, the results are related to:

- ✦ Enhanced coordination of environmental management systems;
- ✦ Increasing territorial capacity for environmental protection, biodiversity preservation and improved ecosystem services;

- + Finally, in relation to the Investment Priority 6G, the expected outcomes are:
 - ✦ Increased awareness of ecological innovation and eco-efficiency;
 - ✦ Progress on the effective organisation of companies and organisations to include the concepts of ecological innovation and eco-innovation;
 - ✦ Increased research related to green growth.

Must also be quoted the positive contribution that the planned measures involve for achieving the objectives in the Europe 2020 Strategy area and the Action Plan of the Strategy of the Atlantic Area, which are summarised in:

- + Contribution for protecting the environment, reducing emissions and preventing biodiversity loss;
- + Development and diversification of coastal and marine tourism.

4.4. ALTERNATIVES TO THE OP CONTENT

The programming of the AA-OP 2014-2020 was made with the intention of achieving a significant and tangible development as regards transnational cooperation in order to generate smart, sustainable and inclusive territorial development in the Atlantic Area.

For this purpose, were selected the Investment Priorities in which the ERDF support presents greater chance of obtaining results at the expense of those in which the impact of aid is anticipated to be lower, either because there is a smaller or inexistent need to act or because the intervention instruments provided by the Programme are not suitable for obtaining the expected results.

Moreover, among the possible alternatives, there is also the so-called "*zero option*", i.e., the non-realisation of the OP. The impact of not implementing the Programme, from a financial point of view, would be the loss of co-financing provided for the implementation of actions in the field of cooperation through the ERDF, which means missing the opportunity to invest in actions that would result in an improved framework for growth in the cooperation area.

Starting from the fact that the ERDF support in Territorial Cooperation would contribute to the objectives of facilitating and promoting cooperation between areas with common interests and bonds and, particularly, promoting common solutions for authorities in different countries in the field of urban, rural and coastal development, developing economic relations and the creation of networking of small and medium enterprises (SMEs), the non-implementation of actions in this area could affect the fulfilment of these

objectives, preventing cooperation between national, regional and local partners, and therefore, preventing greater integration of the territories that make up the Atlantic Area.

Possible remaining alternatives allow multiple combinations, according to the EU regulations, as long as the thematic concentration of 80% of spending in four Objectives is respected. This flexibility makes possible the number of alternatives to be very large, which limits the usefulness of their analysis.

Therefore, it is more relevant to ensure that the final alternative of the OP of the Atlantic Area Transnational Cooperation properly incorporates:

- + Investment Priorities aimed at generating positive dynamics for the protection, improvement and conservation of the environment;
- + Environmental criteria for selecting operations in calls for projects to be developed.

5. EXPECTED DEVELOPMENT OF THE ATLANTIC AREA TRANSNATIONAL COOPERATION OP 2014-2020

5.1. THE PROGRAMMING

The programming, understood as *the process of organisation, decision-making and allocation of financial resources in several stages, with the participation of partners and in accordance with Article 5, for executing, on a multi-annual basis, the joint action of the Union and Member States, in order to achieve the objectives of the Union for smart, sustainable and inclusive growth (article 2.5) of Regulation (EU) No. 1303/2013*, is based, in the field of Territorial Cooperation, on two basic documents: the Common Strategic Framework (CSF) and Cooperation Programmes.

As indicated by Regulation (EU) No. 1303/2013 for the Funds in the **Common Strategic Framework (CSF)**, it “*establishes guiding strategic principles to facilitate the programming process and sectoral and territorial coordination of the Union intervention under IEE Funds and other relevant EU instruments and policies in line with the goals and objectives of the Union Strategy for smart, sustainable and inclusive growth, taking into account the key territorial challenges for the different types of territories*” (Article 10).

Therefore, the CSF will provide a clear strategic direction to the programming process with the intention that Member States and regions may more easily and clearly develop their priorities.

In turn, the *Position Paper* prepared by the Commission for the different Member States reinforces that perspective, and identifies the major challenges to be faced in the 2014-2020 period, also serving as support and recommendation to the programming exercises to be developed. The thematic objectives and investment priorities underlying the strategy of the 2014-2020 AA-OP have a high level of consistency and complementarity with such challenges.

In the Atlantic Area context, the **Transnational Cooperation Programme** is set as the instrument of intervention through which the Funds are channelled. Article 8 of *Regulation (EU) No 1299/2013* details the content that should be integrating the cooperation Programme and responds to the content indicated in 4.2 of this report.

In response, and according to the guidelines contained in the “*Draft Template and Guidelines for the Content of the Cooperation Programme*”, the OP has the following sections:

✚ **Section 1.** Preparation of the Operational Programme and participation of partners;

- + **Section 2.** Cooperation Programme Strategy for the European Union Strategy for smart, sustainable and inclusive growth and the achievement of economic, social and territorial cohesion;
- + **Section 3.** Description of Priority Axis;
- + **Section 4.** Cooperation Programme Financial Plan with undivided participation by Member State;
- + **Section 5.** Integrated Approach of Territorial Development;
- + **Section 6.** Implementing the Programme of Cooperation;
- + **Section 7.** Coordination;
- + **Section 8.** Reduction of administrative burden for beneficiaries;
- + **Section 9.** Horizontal principles;
- + **Section 10.** Annexes (separate elements).

5.2. PROGRAMME'S MONITORING AND EVALUATION

In order to ensure a proper planning of the evaluation system in the new 2014-2020 programming period, *Article 56.1 of Regulation (EU) No 1303/2013* specifies "*the Management Authority shall develop an evaluation plan that may cover more than one programme. It shall be submitted in accordance with the specific rules of the Funds*". Thus, as provided in *Article 56.2* of the same Regulation, the Managing Authority shall ensure that there is an adequate evaluation capacity.

Given the above requirements, an **Assessment Plan** of the 2014-2020 AA-OP will be undertaken aiming to ensure the development of evaluation activities, including assessment exercises to evaluate the effectiveness, efficiency, and impact of these programmes, and that the means available are adequate and appropriate.

During the programming period it should be evaluated, at least once, how the ERDF support has contributed to the objectives of each priority. All evaluations will be considered by the Monitoring Committee and sent to the Commission.

The Annual Implementation Reports for 2017 and 2019 (in accordance with *Article 14.4.a) of Regulation (EU) No. 1299/2013*) will report the progress in implementing the Assessment Plan.

Moreover, the starting point for a proper monitoring and evaluation is the establishment of an operating system meeting the information needs that both processes require.

For this purpose, the starting point is the definition and selection of the OP indicators to facilitate the assessment of the progress in implementing the Programme, in accordance with the common productivity indicators for the purpose of the European Territorial Cooperation (*Annex of Regulation (EU) No 1299 / 2013*), which will also be complemented with specific outcome indicators of the Programme and, where appropriate, with specific productivity indicators.

As part of the Programme's environmental monitoring, section 10 contains specific tools recommended for its implementation.

6. CHARACTERISATION OF THE ENVIRONMENT STARTING SITUATION

6.1. GEOGRAPHIC PRESENTATION OF THE ATLANTIC AREA AND CLIMATOLOGY

The territory covered by the Cooperation Programme comprises the eligible regions from five European Union countries with Atlantic coast: Spain, France, Ireland, Portugal, and United Kingdom. This is an area with more than 594 thousand square kilometres, with 62.7 inhabitants.

The Transnational Cooperation Programme of the Atlantic Area 2014-2020 includes as eligible regions the archipelagos of the Azores and Madeira (Portugal) and the Canary Islands (Spain).

In the Transnational Cooperation Atlantic Area, there are two main climates, namely:

- + Mediterranean climate characterises the southern European regions (in Spain – except in its northern coast – and the Centro, Alentejo and Algarve of Portugal). It presents warm and sunny summers, high temperatures, winters with mild temperatures; scanty rainfall and concentrated especially in spring and autumn.
- + Oceanic climate with influence in the northern region of Portugal and Spain, the region of France, the United Kingdom and Ireland penetrates unto the interior, leading to mild winters, cool summers, predominantly westerly winds and abundant rainfall, especially in winter.

6.2. NATURAL RESOURCES

6.2.1. Soil and forest

The landscape in the Atlantic Area appears predominantly agricultural, with a few highly urbanised areas, especially in the United Kingdom. Consequently, there are numerous natural and semi-natural habitats found in isolation and scattered.

European forests occupy 42% of the land area of the EU-27, according to the European Commission data, in 2011. These areas provide critical ecosystem services such as soil protection and water resources, carbon storage and sequestration and generation of biomass for energy production.

In general, European forest soils exceed critical loads of acidification. The excessive widespread application of fertilizer causes its filtration and dragging, and leads to nitrate eutrophication and contamination of water intended for consumption.

In the Atlantic Area, the regions belonging to Spain, Portugal and the southwest coast of France have around 50% of forestland from the total area. By contrast, the Atlantic Area remaining regions of France, United Kingdom and Ireland show percentages of forestland between 1 and 25% of the total land area, with some exceptions in northern Britain, where the percentage is slightly higher.

6.2.2. Water

Integrated management of all water resources is essential and a priority for the Transnational Atlantic Area. In recent years, the population increasing, industrialization, intensification of agriculture, power generation and transport, sewerage and construction of reservoirs, and recreational growth have significantly increased the pressures exerted on European inland waters. In addition to these problems are the droughts and floods.

Water resources in many parts of Europe are threatened by various human activities. Each year, it is extracted an average of 15% from renewable water resources in Europe. Although regional variations are very large, industry absorbs about 53%, agriculture 26% and the domestic sector 19% of the total.

Agriculture is the activity that uses the most water, in the Mediterranean countries. In southern European countries such as Spain and Portugal, 60% of water is used for irrigation. In some regions, groundwater extraction is outpacing the rate of renewal, causing declines in the water table level, loss of wetlands and saltwater intrusion, which poses a threat to the availability of this resource. The risk of scarcity and quantitative and qualitative degradation is exacerbated by seasonal population variations, constant demographic pressure and increased use of water for agricultural purposes. The quality of groundwater is affected by increased concentrations of nitrates and pesticides from agriculture.

Thus, the use of pesticides and fertilizers has led to a eutrophication and nutrient enrichment far from their main focus, reaching, for example, the mouths of some rivers.

An indicator of pressure or stress on freshwater resources is the Water Exploitation Index (WEI), which annually calculates the ratio of the total freshwater extraction of the total renewable resource. A WEI above 20% means that water resources are under stress and values above 40% indicate severe water stress and clearly unsustainable use of these resources.

In the past two decades, the WEI decreased on average in Europe, as a result of water saving and efficiency measures. In the Atlantic Area, Spain is the only country over 20%, while the northern regions located in this area show better values.

As regards domestic water consumption, it represents about 15% of total water use in Europe. Europeans consume between 100 and 320 litres of water per day on average, varying by country.

The quality of drinking water is still a concern in Europe. In the period 2004-2007, 15% of the twenty-seven EU groundwater-monitoring stations had average nitrate concentrations above 50 mgN/litre, 10.6% were in the range of 40-50 mgN/litre and 13% in the range of 25 to 40 mgN/litre. Approximately 66% of the groundwater stations had a concentration level below 25 mgN/litre.

Only 21% stations showed average nitrate concentrations of less than 2 mgN/litre and 37% between 2 and 10 mgN/litre. A concentration between 40 and 50 mgN/litre was found in 3% of the stations and above 50 mgN/litre also in 3% of the stations.

Although water quality in the Atlantic Area is better than in other parts of Europe, one must consider that it is a place of **river basin** drain, which carries significant contaminant flows. Mainly, the quality of surface water gets affected by the presence of nitrogen and phosphorus.

The highest concentrations of nitrogen, lying between 2.5-7.5 mgN/l and > 7.5 mgN/l, appear in the littoral regions of France and the United Kingdom. The values of nitrogen concentration at the mouths of the Atlantic Ocean in Portugal present values between 0.3 and 2.5 mgN/l.

On average, the ecological status of rivers or water bodies finds itself between moderate and good for all the Atlantic Area countries and the EU-27 average.

6.2.3. Coastlines

a) Status of coastal and transition waters

The coastline or the shoreline of the Atlantic region extends from the north of the United Kingdom and Ireland to the northern coastlines of Spain and Portugal. Windswept cliffs, exposed rocky headlands and narrow estuaries contrast sharply with long sandy beaches, sheltered bays and extensive marshes in the Atlantic Area.

In general, the state of the coast in the Atlantic Area is good. In fact, Portugal is the only country with coasts in bad condition and France in poor condition, in some cases reaching approximately 5% of its territory.

The coast of the Galicia region in Spain and the north of the United Kingdom have the lowest percentages of waters affected by pollution, between 10% and 30%. The Centro region of Portugal, west coast of Ireland, western France and western United Kingdom

have rates in the range of 30-50%. The southern coast of Portugal, East Ireland and northern France present higher percentages, between 50% and 70%, in some cases exceeding 90%.

In addition, the Atlantic Area Transnational Cooperation Programme 2014-2020 includes as eligible regions the archipelagos of the Azores and Madeira (Portugal) and the Canary Islands (Spain). They are located in the biogeographic region of Macaronesia, a collective name given to the five archipelagos of North Atlantic of volcanic origin, which encompasses the two Portuguese archipelagos - Azores and Madeira, and a Spanish one - the Canary Islands. The location of these archipelagos is considered an outermost region, characterised therefore by specific constraints and structural problems resulting from its insular profile.

The Region of the Azores is an archipelago of nine islands with an area of 2.322 km² (their individual surfaces vary between the 747 km² of São Miguel and the 17 km² of Corvo). In 2011, their population was 246.732 inhabitants with a population density of 106, 3 persons per km².

The Region of Madeira is an archipelago consisting of two inhabited islands, Madeira and Porto Santo, and three smaller uninhabited islands. Its area is 801,1 km². Its population, in 2011, was 268.045 inhabitants with a population density of 333, 7 persons per km².

The Canary Autonomous Community is an archipelago of seven main islands: El Hierro, La Gomera, La Palma, Tenerife, Fuerteventura, Gran Canaria and Lanzarote, and two island territories: Chinijo Archipelago and Isla de Lobos. Its surface is 7.447 km². Its population, in 2011, was 2.100.229 inhabitants with a population density of 283 persons per km².

b) Shoreline management

Since 1995, the shoreline protection or land-sea transition has been primarily under charge of the **Integrated Coastal Zone Management (ICZM)**. Thus, the management of the coastal zone, i.e., the protection and management of the land portion affected by its dynamics and processes (environmental, social and economic) has been carried out individually by the various States and regions with different **policies and land planning instruments**.

In short, in the Atlantic Area the context, the following picture stands out:

- ✦ Portugal accounts for nine Coastal Zone Management Plans (*POOC*), approved in the period between 1998 and 2005. Along with these planning instruments, it was developed an Action Plan for the Coastline in the period 2007-2013, which identifies and provides the necessary actions to regenerate the coast, both at national and regional level.

- + In France the effective protection of coastal natural areas is carried out firstly through the *Conservatoire de l'espace littoral et des rivages lacustres*, created in 1975 and dedicated to the protection of natural areas and sea and lake landscapes. Subsequently, the Coastal Act of 1986 came to establish the basic legal framework of protection.
- + In the United Kingdom, the *Shoreline Management Plans* (SMP) aim to ensure environmental protection of the coast and reduce natural disaster risks related to flooding and erosion. The first generation of these plans was approved in the 90s of the last century, so that each area of the coastline is currently managed in a specific way, according to the criteria set out in the plans.
- + In Ireland, the *National Spatial Strategy* (NSS) defines the integrated management of the coastal zone through the instrument "Integrated Coastal Zone Management" (ICZM), from the Department of Marine and Natural Resources.
- + In Spain, the responsibilities for environmental protection, landscape and land management are transferred to the Autonomous Communities. However, it is impossible to think of coastal management without the major boost in 1988, which marked the approval of the Coastal Act (*Ley de Costas*) and later the corresponding Regulation (*Real Decreto 147/1989*). The reality on this question of the Autonomous Communities included the Atlantic Area is as follows:
 - ✦ In Andalucía, *Law 1/1994*, regarding Land Use Management, establishes a territorial planning system articulated on two levels: Spatial Plan of Andalusia and subregional plans. This Autonomous Community will culminate its entire coastline management, after approval the corresponding subregional plans.
 - ✦ Asturias has, since May 2005, a Special Territorial Plan for the Asturias Coastal Zone Management (*POLA - Plan Territorial Especial de Ordenación del Litoral Asturiano*), which develops the *Decree 107/93* laying down Subregional Guidelines for the Asturias Coastal Band.
 - ✦ Cantabria, since September 2004, has a territorial planning instrument approved by law, the so-called *Plan de Ordenación del Litoral* (POL).
 - ✦ In the Basque Country, the baseline instrument is the Territorial Planning Guidelines (*Directrices de Ordenación Territorial*), which are developed through Partial Territorial Plans and Sectoral Territorial Plans. The Sectoral Territorial Plan for Protection and Management that corresponds to the Shoreline was approved by *Decree 43/2007, of March 13*.

6.2.4. Marine environment

This transnational cooperation area is entirely bathed by the Atlantic Ocean. The quality of the Atlantic marine waters is, on average, one of the best in Europe. However, even here, there are serious local problems, especially in estuaries and areas with high industrial concentration. This ocean is threatened mainly by over fishing and the presence of heavy metals.

Oil pollution reveals very diverse status, and it is not possible to make a reliable assessment on the general trends. According to the European Environment Agency, the main sources are found in soil, and contamination reaches the sea through the rivers. Although the annual number of oil spills seems to be declining, small discharges, and sometimes large ones in areas of heavy boat traffic are causing major damages.

The wide variation in the tides of the Atlantic Ocean has led to the formation of large wetlands, notable for their exceptional ecosystems and biodiversity. Enhanced protection of these natural areas is of particular relevance for transnational cooperation.

The density of protected environments can vary greatly from one Member State to another, and seems to be significantly lower in France.

6.2.5. Fishing resources

More than 1.000 fish species live in the waters of the Atlantic Ocean. 10% of the fish has commercial purposes. Although abundant, fish population has been under considerable pressure in recent years because of the rapid expansion of industrial-scale fishing activities. Currently, most of the species are caught without respecting safe biological limits.

Modern fishing techniques also involve high levels of fish discarding and other marine organisms. It is estimated that more than half of the fish caught particularly with bottom trawls, consists of fish below the required size or non-target species. These animals are thrown back into the sea, usually dead.

In addition to these direct threats, there are other threats related with concentrations of toxic contaminants from liquid waste discharges near the sea or in rivers. Pollution, whether from urban, industrial or agricultural origin, represents a problem that all coastal waters share. Unfortunately, the large algal blooms and poisoning of shellfish and seafood are still a common occurrence despite the attempts in order to regulate and reduce outbreaks of contamination.

Fishing has forged Atlantic culture. Entire communities still rely on it, especially in the less privileged areas. Indeed, it is an integral part of Portuguese social life, for example. The

industry of deep water fishing (high-sea) is prominent, but there are few industrial centres based on long-range fishing. Some examples are Vigo, Berméo, Huelva, Concarneau, Lorient, Aveiro, Killybegs, among others. Access to resources is weak while capture activities predominate compared to processing activities.

The fishing activity in the Member States participating in the Programme constitutes a remarkable importance. In fact, several of them are among the top producers in the EU, such as Spain (16% of total EU production), the United Kingdom (13%) and France (11%).

In the Atlantic Area Transnational Cooperation, aquaculture has grown considerably as regards the traditional production of mussels in Galicia, oysters in Poitou-Charentes and lower Normandy, and salmon in Scotland and Ireland. Thereby, its environmental impact expresses relevance when it comes to the presence of nutrients in the water and wild stocks.

The importance of fish-farming units in the economy is low, and the number of fishermen and fish-farms is declining everywhere, due to increasingly scarce resources.

6.3. NATURAL HERITAGE

In the protection of natural areas and in the biodiversity policy of the EU, the Natura 2000 represents the network of protected natural areas set out in the Habitats Directive 92/43/EEC of the Council of May 21, 1992. The network aims at ensuring the long-term survival of the most valuable and threatened species and habitats in Europe. It comprises Special Areas of Conservation (SACs), Sites of Community Importance (SCI) and it also includes Special Protection Areas for Birds (SPAs) designated in accordance with Directive 79/409/EEC of the Council of April 2, 1979.

The Atlantic Area highlights the predominance of protected areas in the Iberian Peninsula and the United Kingdom. As regards marine sites under the Natura 2000 protection, the West coast of France and the United Kingdom are distinguished.

On the other hand, it is in the north of the United Kingdom and throughout the Iberian Peninsula that the highest percentages of High Nature Value areas can be recorded.

Finally, the Iberian Peninsula features the greatest relevance and presence of important bird areas under the High Nature Value representation.

Regarding the Natural Heritage of the archipelagos of the Macaronesian region the following stands out: in the Azores, the Natural Parks of the Islands: Corvo, Flores, Faial, Pico, São Jorge, Graciosa, Terceira, São Miguel and Santa Maria and the Marine Park of the Archipelago, which are the basic management unit of the Regional Network of Protected Areas in the Azores Autonomous Region. In the Autonomous Region of Madeira, nine Sites of Community Importance and four Sites of Special Protection have been classified. The

Canary Islands, due to their large surface of natural area, 46.8% of its territory qualifies for the Natura 2000 Network and 86.3% of the forest area is under Natura 2000.

6.4. BIODIVERSITY

The impacts caused by the reduction or loss of biodiversity influence the natural environment, but also affect the achievement of economic and social objectives, framed within a sustainable development strategy, with the challenges regarding biodiversity conservation presenting an international character.

As already mentioned above, the EU policy concerning biodiversity and management of protected areas for biodiversity conservation are proposed by the Member States under the *EU Habitats Directive 92/43/EEC* and the *Birds Directive 79/409/EEC*.

About 14% of the territory of the EU-27 was proposed for protection under the Habitats Directive,) and it is estimated that the joint area under the two directives amounts to approximately 18% of the EU-27 total land area. In the Atlantic Area, countries such as France, the United Kingdom and Ireland are below the European average of protection, while Spain is far above it.

Table 9 shows the area under the protection of the Habitats Directive in percentage and square kilometres of land area, and in square kilometres of the sea surface. Countries such as France, the United Kingdom and Ireland are below the European average of protection, while Spain is far above it.

TABLE 9. BIODIVERSITY-HABITATS DIRECTIVE PROTECTED SURFACE

REGION/COUNTRY	% LAND SURFACE	TERRITORIAL SURFACE (KM ²)	SEA SURFACE (KM ²)
Portugal	17	586.092	775
Spain	24	46.718	7.926
France	9	123.508	26.838
United Kingdom	7	16.657	12.409
Ireland	11	7.551	6.009

Source: Eurostat

More than a third of Europe's bird species are in decline but more worrisome in northwestern and central Europe. The most prominent cause of this situation includes the damage to their habitats with changes in land use, particularly by the intensification of agricultural and forestry practices, the growing infrastructure development, water extraction and pollution.

In Europe as a whole, the wild species are threatened evidencing a decrease in their number. On the other hand, it is possible to see increasing populations of animal species associated with human activities, and proliferation of some plant species that tolerate

high levels of nutrients or acidity. There has also been some recovery in the number of birds that breed in areas, where organic farming is practiced. The introduction of alien species causes problems not only in terrestrial habitats, but also in aquatic habitats, both marine and inland waters.

Southern Europe registers the greatest loss of wetlands. The main causes involve set-aside, pollution, drainage, recreation, and urbanism.

In the Atlantic region, there are 52 species of flora, which are listed in Annex II of the Habitats Directive, out of which 14 are endemic. The rate of endemism is the lowest of all biogeographic regions and appear generally concentrated in the north of the Iberian Peninsula.

Many species of the flora listed are closely associated with typical Atlantic habitats. Some of these species are the herbs *Festuca summilusitana*, which can be found only in coastal heaths of northern Iberian Peninsula, the *Angelica heterocarpa*, which grows on the banks of estuaries along the French Atlantic coast, and the *gencianácea Gentianella Anglica*, which can be found in the chalky pastures in the United Kingdom.

Bryophytes are also well represented. Among these, one can find the rare *Petalophyllum ralfsii*, which nowadays only grows in wet dune slacks. It provides an excellent indicator of the health of the dynamic dune systems, as it requires new wet dune slacks formed by wind to survive.

As for wildlife, there are 80 species living in Atlantic region, which are also listed in the *Habitats Directive*. More than a third corresponds to invertebrates, which include from rare butterflies and dragonflies, to the land snails as is the case of the tiny *Vertigo angustior* and the freshwater mussel *Margaritifera durrovensis*, which is endemic to this region.

The Atlantic region is perhaps the best known for its abundant marine life. The largest concentrations of common seals in Europe are located on the shores of the British Isles and the Wadden Sea. A significant number of bottlenose dolphins and porpoises inhabit along the coast from Denmark to the north of Spain. Although the number of specimens may seem high (350.000 porpoises), populations find themselves under constant pressure due to unacceptably high levels of by-catches and pollutant harmful effects.

Numerous waterfowl and wading birds flock to this region, especially during the winter to escape the harsh conditions of the North Arctic and seek shelter in the coastal wetlands rich in nutrients, near the shores of the Atlantic and North Sea.

On the other hand, the global extent of forests is increasing due to a more intensive management, closely linked to productive forestry, and the serious loss of natural or semi-natural ancient woodland persists.

The number and total size of protected areas in the Atlantic Area appears extraordinary, but unlikely to increase, given the pressures of urbanization on the ground, transport and agriculture. The areas already under protection are also facing similar pressures due to land use.

6.5. NATURAL RISKS

The trend towards climate instability exacerbates the risks of natural disasters, both in coastal areas and in more interior areas.

6.5.1. Seismicity

The seismic risk in Europe is not uniform. Seismic risk models clearly indicate that the main seismic zones with expected earthquakes magnitudes, including above level 7, are found in the Mediterranean area. Regarding the Atlantic Area region, the risk would occur in some areas of southern Spain while the risk of earthquakes is considerably higher in the Pyrenees and in Portugal.

6.5.2. Erosion

Soil erosion is intensified by tillage land abandonment and forest fires, particularly in marginal areas, with consequent loss of fertility and water pollution.

For the Atlantic Area, the highest incidence occurs in Spain (especially in Valle del Guadalquivir and in Galicia) and Portugal (particularly concentrated in the Norte region). Also noteworthy are certain areas in the north of the United Kingdom.

The impact of coastal erosion on the most important Natura 2000 sites occurs in the coast of Ireland, France and Portugal.

6.5.3. Desertification and compaction

Desertification is a process of land degradation caused by different reasons: type of rainfed and irrigated agriculture, water and wind erosion, soil sealing and compaction, climate change, overgrazing, deforestation, forest fires, extinction of native species of flora and fauna, and urban sprawl.

To determine the degree of soil desertification in the Atlantic Area, one must therefore jointly analyse maps of erosion, land use, fires, salinisation, among others. It is also

important to know the content of organic carbon on the topsoil when it comes to assess the state of degradation.

Overall, the percentage of topsoil organic carbon stands between 0% and 6% for the Atlantic regions of Spain, Portugal and France, with higher values for Ireland and the United Kingdom, where the percentages grow higher than 2%. In Ireland and on the west coast and northern UK the values increase from 6% to over 35%.

Moreover, the soil compaction phenomenon should also be mentioned. Compaction is caused by the passage of people, animals and vehicles repeatedly in the same place. This provokes the disappearance of the spaces between soil particles, which decreases the amount of oxygen therein, and, therefore, the microflora and microfauna. It is noted for the Atlantic Area that, generally, there is no soil compaction with the exception for some moderate severity of soil compaction in the south-western part of the Iberian Peninsula, southeast of the United Kingdom and north-eastern France, and light severity of soil compaction in the Atlantic region of France, Ireland and the United Kingdom.

6.5.4. Landslides

The potential impacts of the landslides are often exacerbated by land use management and include uncontrolled urbanisation. Mountain areas are the most prone to landslides.

At the Atlantic Area level, it can be seen that moderate risk of landslide would only exist in the north of the United Kingdom, southern Ireland, the area of the Pyrenees, in the eastern half of the Cantabrian coast, in the west coast of the Iberian Peninsula, and even in the valley of Valle del Guadalquivir and Cadiz.

6.5.5. Floods

Many regions of the Atlantic Area (especially in coastal areas) give priority to the protection against floods and the prevention and reduction of its effects. The flood effects are aggravated in mountain areas showing direct relation with the rising sea level.

One of the most affected countries in terms of number of floods was the United Kingdom (scoring 20% of the major floods in Europe between 2003 e 2009), and to a smaller extent north-western France.

6.5.6. Forest fires

Some of the projections on Climate Change suggest rising temperatures, heat waves, desertification, increase in the number of droughts and extended periods of drought in

southern Europe. These projected climate changes could increase the time and severity of the fire season, the hazard area and the likelihood of large fires to happen.

Fires and fire effects are concentrated in the European Mediterranean region. About 70% of fires occur in this area, and are responsible for 85% of the total burned area in Europe.

Given the problem of large forest fires, statistics vary considerably each year. This indicates that the amount of burned area depends largely on seasonal weather conditions and forest maintenance regarding the accumulation of biomass in fire-prone regions.

The highest values regarding danger and severity of fires are found in the Iberian Peninsula. Spain and Portugal name the countries with higher values of burned area, but if Spain shows a trend of reduction in the past decade, in Portugal the levels of area affected by fire are maintained. From these data, one deduces that Spain has developed fire control measures and fire management, yet to be developed in Portugal.

6.5.7. Drought

Large parts of Europe see themselves affected by drought and water shortages, while pressures on Europe's water resources have increased due to the population growth and the new uses.

The supply of drinking water represents a matter of concern to Spain, Portugal and the south of France, where, facing the growing scarcity of water in part of the territory, there is an increasingly controlled use.

In the last decade, there were more severe droughts in the southwestern Europe, including the Iberian Peninsula, France and the south of the United Kingdom.

6.6. TECHNOLOGICAL DISASTERS

Technological disasters are the so-called oil slicks and industrial accidents. Among the technological damages, those related to oil transportation cannot be ignored on the Atlantic coast. Some areas are particularly exposed: United Kingdom, northwest of France (particularly Normandy), the Charente and the Aquitaine coast, the Cantabrian coast, western Galicia, Lisbon and Alentejo.

Between 1998 and 2009, nine major oil spills from ships were recorded in coastal areas of Europe and a major one from a pipeline. The most significant ones emerged from the tankers Erika (1999, Atlantic coast of France) and Prestige (2002, Atlantic coast of Spain).

The decrease in the number of spill incidents in recent years is due, in part, to the new EU legislation that imposes greater obligations, including the construction of ships such as the double-hull ships (*EC Regulation 417/2002*, and *EC Regulation 1726/2003*), and the common system of traffic monitoring (*EC Directive 2002/59*).

Apart from this traffic, the presence of refineries and other facilities for the extraction or processing of oil and its inherent risks are also considered as technological risks. Spatial planning that includes the proper separation of industry, infrastructures and residential settlements in industrial areas provides an effective mechanism for mitigating these risks.

6.7. CLIMATE CHANGE

According to the climate models and data from the European Environment Agency, an increase of 2 Celsius degrees is expected in the year 2100, compared to 1990 levels, with higher increases in northern Europe, if compared with the south.

The main causes of Climate Change consist of the use of fossil fuels, agriculture, and changes in land use, including deforestation, some industrial processes such as cement production and landfills, cooling, production of foaming agents and the use of solvents.

Possible consequences include sea levels rising, higher temperatures that increase crop evapotranspiration thus increasing water needs, storms, variations in the patterns of runoff, which can cause flooding and more intense and frequent droughts, as well as changes in biota and food production.

European policy on Climate Change is often structured in two main areas: mitigation and adaptation.

The environmental and economic potential impact regarding Climate Change has been estimated by combining the measurements of summer and winter rainfall, days of heavy rainfall, the average annual temperature, summer days, frost days, snow days and annual average evaporation of erosion, land organic carbon content, protected natural areas and forest fires sensitivity.

The result shows that the greatest potential negative impact occurs in the Atlantic Area of the Iberian Peninsula (and more specifically in the Algarve, Alentejo, Centro and Norte regions of Portugal, Galicia, Asturias, Cantabria, Cáceres, Burgos and La Rioja de España in Spain). In the regions of France, the United Kingdom and Ireland the negative impacts are low or moderate.

As regards the potential economic impact of Climate Change, it has been measured through the combination of several variables such as average annual evaporation, summer days, snow days, frost days, changes in the level of flooding and sea level rising, forestry, summer and winter tourism, the supply and demand of energy. In this case, the major

negative impacts are estimated in southern Portugal, the coast of Alentejo and Algarve regions, and in the Spanish provinces of Huelva, Cadiz and Seville.

Thus, environmental impacts are larger in the north of the Atlantic Area Peninsula whilst the economic impacts seem to be higher in the south, which means comprehensive adaptation measures for the whole Peninsula need to be taken.

Coastal areas and the European coast of the Atlantic Area are potentially vulnerable areas to rising sea levels caused by climate change, related flooding and erosion. Thus, on the Atlantic coast of Andalusia, western France and with less relevance in Portugal, southern United Kingdom and Ireland, the sea level rise would affect the coastline.

6.8. ENERGY: RENEWABLE SOURCES

Given the inevitable depletion of fossil energies, their cost and their impact on global Climate Change, the development of new, green and renewable energy forms is a commitment by all countries signatories of international agreements.

In the EU, renewable energies should represent, by 2020, 20% of final energy consumption. For this purpose, Europe favours onshore wind energy, hydro and solar power, but it also focuses on less conventional sources, not yet used on a large scale such as Marine Renewable Energies. The Atlantic Area, oceanic in nature, offers potential for renewable energy in marine and coastal environments.

The development of sea power is essential. These European cooperation initiatives regarding technology mainly focus on the phases of R&D, especially through the Framework Programme for Research and Technological Development. Different strategies have been adopted by the Atlantic Area countries:

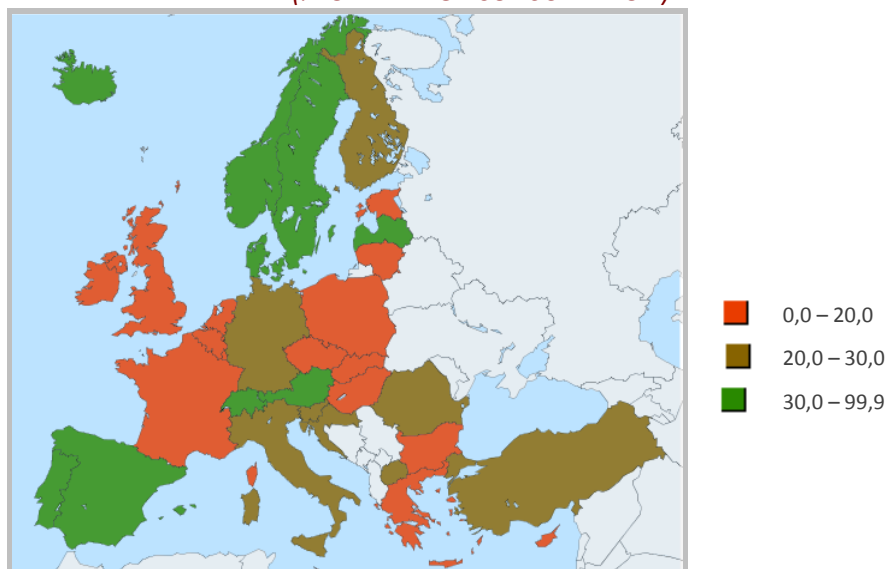
- + Spain, after an extensive development of onshore wind and solar energy, massively supports offshore wind power. The possible implementation areas for offshore wind farms are already defined, which facilitates its implementation.
- + The United Kingdom is the first country in the world having legislation with a binding target in terms of emissions of greenhouse gases: 34% reduction by 2020 and 80% in 2050. It is also the world's first largest producer of offshore wind energy, aiming at having sufficient power to supply the whole country in electricity by 2020.
- + Portugal aims to use the wave energy. The country has innovated from a legislative point of view with the "*Marine Occupation Plan*", which authorises the government to establish a legal framework in order to use the property of the maritime public domain for the production of electrical energy from wave origin.

- + Ireland extremely dependent on electricity imports, in 2005, headed itself to the offshore energy and has developed a strategy for the development of ocean energy. The country acquired, in 2004, an offshore wind farm and the development of this type of energy continues with several large projects.
- + France, although possessing the second seafront and the first tidal power plant (1966), has only recently shown interest in the potential of its marine renewable energies.

A relevant indicator for analysing sustainability in the energy sector relates to consumption and production by the different countries of the Atlantic Area in relation to renewable energy. Beginning with the renewable energy consumption as regards the total energy consumption, the trend has been growing since 2008, with Portugal on top as it presents a renewable energy consumption rate, in 2011, that almost doubles the EU average (24,9 versus 13), ahead of Spain and France.

On what concerns energy production from renewable sources, both Spain and Portugal had registered important achievements, to the extent that Portugal scored 43% of the energy produced from renewable sources, well above the European average (20 %).

**MAP 1. ELECTRICITY FROM RENEWABLE SOURCES
(% ON ENERGY CONSUMPTION)**



6.9. WASTE

Waste management is one of the biggest challenges of developed societies. For many years the growth rate of waste generation was above the growth in GDP. The main

variables to be considered are, first, the evolution of waste production and, secondly, the treatment performed.

Until the middle of the last decade, there was a marked trend with waste production growth rate in absolute terms and *per capita* in the countries of the Atlantic Area scoring higher than economic growth. This growing trend, at least in *per capita* terms, broke in 2003, so that in the last ten years there was a significant reduction in relative terms for the majority of the areas, except for Ireland, where there has been a remarkable increase.

This decrease has been significant in the industrial and mining waste, while the domestic trend has been less pronounced. In fact, the challenge has been the drop in the volume of waste at source and subsequently the reuse once most of the production has been incorporated into controlled circuits for collection and storage.

However, there is a significant difference in waste production in the States of the Atlantic Area. Thus, *per capita* waste generation (excluding large mineral) is especially significant in Ireland, Portugal and the United Kingdom, while both France and Spain clearly fall below the European average.

As for evolution, in recent years, there has been in the United Kingdom, Spain and Portugal, and to a lesser extent in France, a significant reduction in the volume of waste generated as a result of the brutal fall in production and, above all, consumption. This decrease should be consolidated in the habits and rules so that, at the time when economic activity picks up, the waste production rate will not raise above the GDP growth. However, in Ireland, the evolution between 2003 and 2010 shows a significant increase.

The trend shown by the data related to the treatment of waste in the past decade points towards an appreciable improvement in terms of sustainability.

In relation to the treatment of waste, there are very marked differences between the countries in the Atlantic Area, further also evident in the latest developments. Thus, treatment of waste has been significantly increased in the United Kingdom and France, and has been reduced in the cases of Ireland and Portugal.

TABLE 10. WASTE TREATMENT

	2004	2006	2008	2010
Ireland	18.227.850	22.730.497	16.245.217	9.420.759
Spain	136.220.011	143.885.581	137.687.475	132.687.982
France	283.391.472	292.502.076	322.641.264	336.020.706
Portugal	23.945.324	24.597.037	22.043.896	20.114.979
United Kingdom	275.934.518	296.457.354	316.991.407	285.674.242

Source: Eurostat

From a municipal perspective, cities such as Bristol, Cardiff, Nantes, Bilbao, Lisbon, among others, stand out by their urban redevelopment plans and recycling integrated in a waste policy.

6.10. URBANIZATION

The Atlantic coast seems to be less saturated than other coastlines in Europe as compared to the Mediterranean for example. In areas where natural areas predominate, such as Scotland, the majority of the Irish coast, the North of England, Wales, Aquitaine and much of the northern Spanish coast, the urban global pressure remains moderate.

Other regions of the Atlantic Area have suffered major urbanisation actions, such as building housing complexes on the shores of the sea, for example in the Algarve, Andalusia or south-western France. The same applies to the uncontrolled urban sprawl of cities in regions of the Atlantic, such as the South and West of England, most of the French coast, or the Cantabrian coast.

7. MOTIVATION FOR THE IMPLEMENTATION OF THE STRATEGIC ENVIRONMENTAL ASSESSMENT

According to the provisions of Annex I of the "*Guidance Document on the Ex- ante Evaluation. Monitoring and Evaluation of the European Cohesion Policy*", in the case of programmes not covered by Article 3(2) of Directive 2001/42/EEC, the environmental authorities of the Member States must ascertain the possible existence of significant environmental effects. Although most programmes financed by the ERDF and the Cohesion Fund will require a Strategic Environmental Assessment, it is likely that this is not necessary for European Transnational Cooperation Programmes.

In general, previous experience shows that the percentage of projects approved under the OP that required an Environmental Impact Assessment has been very limited. However, in the specific event that any of the projects would generate effects on the environment, they are expected to have a marginal character without cumulative effects and a local character from a geographical point of view, therefore they can be considered not relevant in the scope of the cooperation area.

To this can also be added the fact that the ability to influence the OP, given its financial dimension, has a smaller character in the hierarchy of Community, national or regional planning, a linear aspect throughout cooperation experience in the Atlantic Area.

All the above leads to the conclusion that there is **no evidence that the Atlantic Area Transnational Cooperation Operational Programme 2014-2020 has significant negative effects on the environment.**

Moreover, it is necessary to emphasise the relevance of the Programme to the implementation of Community legislation on the environment. The projects within the framework of Thematic Objectives 4, 5 and 6 are limited to the scope of application of the relevant regulations. However, once again, its relevance is determined by its financial dimension, which makes it not a key instrument in this task.

The assessment criteria for determining the need to submit a plan or programme to the Strategic Environmental Assessment, as they could cause significant effects, are specified in Annex II of Directive 2001/42/EEC¹.

¹ In the case that from these are deducted the possibilities of emerging significant effects, for the Spanish legal systems it would be necessary to undertake an Ordinary Strategic Environmental Assessment, as determined by Article 31 and Annex V of Law 21/2013.

Table 9 shows an initial assessment of the above criteria to determine the significance of the predicted effects based on the characteristics of the OP and the effects themselves and the area likely to be affected.

The general conclusion drawn from the analysis is the weak relevance of the expected effects, the consideration of potential determinants being relegated to three specific areas:

- + The fact that the Programme defines a framework for the approval of projects. In this respect, however, the projects will be approved in calls in which the conditions of access will be determined, in addition to the particular type of projects which, by their features, are only marginally subject to an *Environmental Impact Assessment in accordance with the provisions of Article 4.1 and Annex I from Directive 2011/92/EU, of the European Parliament and of the Council of 13 December 2011 Relating to the Assessment of Certain Public and Private Projects Impacts on the Environment*.
- + The transnational nature of the effects. As it refers to a Territorial Cooperation Programme, if some environmental impact is to be produced, it will be specifically localised in the territory.
- + The potential effects on areas and landscapes with recognised protection. Although no impacts are expected beyond those of marginal and local character, the previous experience has given special attention to the evaluation of projects that may affect areas and resources under Natura 2000 Network protection. Therefore, this third topic sets up a recommendation towards the development of types of actions closely connected to this type of territories.

**TABLE 11. CRITERIA TO DETERMINE THE POSSIBLE SIGNIFICATION OF THE IMPACTS ON THE ENVIRONMENT
(ANNEX II OF DIRECTIVE 2001/42/EEC)**

(A)CHARACTERISTICS OF THE OPERATIONAL PROGRAMME OF TRANSNATIONAL COOPERATION OF THE ATLANTIC AREA 2014-2020		
CRITERIA	OP CHARACTERISTICS	CRITERIA
Framework for projects and other activities, either with regard to the location, nature, size and operating conditions or in connection with the allocation of resources	The Programme effectively sets a framework for projects. However, the framework determines the approval in accordance with the conditions specified in each call, of a specific type of projects that, by their nature, are only marginally subject to an Environmental Impact Assessment, in accordance with the provisions of Article 4.1 and Annex I of <i>Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 Relating to the Evaluation of the Effects of Certain Public and Private Projects on the Environment</i> .	✓
Influence on other plans and programmes	The effects of the Programme on other plans and programmes, given their limited financial dimension and their thematic and territorial specificity are estimated irrelevant (see section 0).	✗
Significant environmental problems associated with the Programme	The types of actions planned, according to the OP draft, will be, for the most, strategic and pro-active, not anticipating the generation of significant problems relating to the Programme (see section 8.1).	✗
Relevance of the programme for the implementation of Community or national legislation on environment	The Programme and the type of actions contained therein are fully relevant in view of the implementation of EU environmental legislation, although for its financial dimension does not constitute the most important instrument in this regard (see section 8.3).	✓



Criteria considered



Criteria not considered

(B) CHARACTERISTICS OF THE EFFECTS AND THE POSSIBLE AFFECTED AREA		
CRITERIA	OP CHARACTERISTICS	EVALUATION
Probability, duration, frequency and reversibility of the effects	It cannot be concluded that the Operational Programme of Transnational Cooperation of the Atlantic Area 2014-2020 has significant negative effects on the environment (see section 8.1).	×
Cumulative nature of the effects	In the specific event that any of the projects would generate effects on the environment they are expected to have a marginal nature without cumulative effects (Chapter 6.1) and, in any case, there will be conducted the appropriate Environmental Impact Assessment as well as the appropriate corrective measures.	×
Transnational nature of the effects	The geographical delimitation of the cooperation area covers a transnational territory, although the marginal and non-significant effects that may arise from its development will have a purely local character, without causing transnational effects.	×
Risks to human health or the environment	It is not expected that the type of proceedings under the Operational Programme for Transnational Cooperation of the Atlantic Area 2014-2020 increase significantly the risks to human health or the environment, nor that they will generate significant accidents.	×
Magnitude and spatial extent of the effects	The expected effects, according to previous experience and the type of scheduled projects, will have a purely local nature, if there is any.	×
Value and vulnerability of the concerned problem area	Special natural characteristics	×
	Effects on cultural heritage	×
	Overcoming limit values or environmental quality objectives	×
	Soil intensive exploitation	×
	Effects on recognized protection areas and landscapes	✓



Criteria considered



Criteria not considered

8. POSSIBLE EFFECTS

The strategic, operational (defined by the type of actions planned), and financial dimension of the AA-OP 2014-2020 generates low expectations of achieving a real impact on the Atlantic Area environment.

Both the predicted environmental effects, including the effects on concurrent sectoral, and spatial plans are marginal and non-quantifiable in nature.

8.1. POSSIBLE ENVIRONMENTAL EFFECTS OF GENERAL NATURE

The types of actions to be taken, according to the OP draft, will be intangible and there are no infrastructure projects planned. Therefore, for example, it is expected the creation or strengthening of cooperation platforms; encouragement for participation in *European Innovation Partnerships*, technology dissemination, exchange or benchmarking of support services to companies, advisory actions, information and promotion of exporting companies, development of common tools for the efficient use of energy, promotion of sustainable tourism strategies, formulation and implementation of early warning systems, studies, dissemination of good practices, experiences exchange, etc.

In general, the strategic and operational OP formulation allows for the following conclusions regarding their expected effects:

- + The nature of the planned actions, given their strategic orientation, do not adversely affect the natural environment, so that there is no need to consider the requirements identified under the *Habitats Directive 92/43/EEC*, the *Water Directive 2000/60/EC*, the roadmap to a competitive low carbon economy in 2050, among others.
- + Problems or negative environmental impacts associated with the development of the Programme are not expected. On the contrary, the strategic orientation of actions leads to expected favourable effects, contributing to the improvement of knowledge and processes, with elements of demonstrative and innovative nature and the promotion of sustainable development strategies and environmental impact mitigation.

8.2. POSSIBLE ENVIRONMENTAL EFFECTS OF INDIVIDUAL NATURE BY PRIORITY AXIS

A more detailed analysis on the effects on the Priority Axis level deals with the identification of potential impacts of the expected results on the environment in the different fields defined in Annex I of Directive 2001/42/EEC: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage and landscape.

8.2.1. Specific effects of Axis 1

Under Axis 1 (Stimulating innovation and competitiveness in the Atlantic Area), which develops Thematic Objective 1, it is complex to estimate the potential specific effects, for their magnitude and degree of uncertainty about the individual actions that can be performed. However, it is estimated that the environmental impact will be very limited given the nature of the Programme, in line with that observed in previous programming periods.

In any case, the particular characteristics of the planned actions type, the presence of public research and innovation institutions in the projects (which has been a historical constant and is expected to remain for the forthcoming programming period), and the high level of environmental control and management in public and private centres, allow to assess the direct environmental risk as “reduced”.

Nevertheless, the existence of some marginal impacts worthy of highlighting has been detected, and they will have a higher probability of occurrence in the case of the approved projects related to environmental technologies, eco-innovation and/or sustainable development.

Thus, it is expected that implementing the actions envisaged in this Priority Axis will increase the capacity for developing innovations in different environmental domains (air, water, soil, etc.), though it is currently impossible to select the magnitude with a degree of certainty.

However, it should be noted that if the Programme successfully improves or disseminates more efficiently procedures applied to economic sectors, this could lead to dynamics potentially able to disseminate processes or products having:

- + Lower levels of contamination, which could positively affect water and air quality as well as a lower risk to human health.

- + Lower consumption of materials and energy given the achievement of higher performance and efficiency levels

TABLE 12. POTENTIAL EFFECTS OF THE TYPE OF ACTIONS EXPECTED FOR AXIS 1

Axis	TO	IP	SPECIFIC OBJECTIVE	EXPECTED OUTCOMES	ENVIRONMENTAL ASPECTS								
					Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health
1	1	1B	SO 1.1: Enhancing innovation capacity through cooperation to foster competitiveness	Greater cooperation and linkage (partnerships, networks...) between public, private and research actors	↑	↔	↔	↔	↔	↔	↔	↔	↑
				Promoting innovation in regional key areas of smart specialization and innovation opportunities	↑	↑	↑	↔	↑	↑	↑	↑	↑
				Improved capacity of public and private bodies involved in R&D in areas of smart specialization	↑	↔	↔	↔	↔	↔	↔	↔	↑
				Increased capabilities on innovation and activities in SMEs	↑	↑	↑	↔	↑	↑	↑	↑	↑
			SO 1.2: Strengthening the transfer of innovation results to facilitate the emergence of new products, services and processes	Better knowledge of markets and business opportunities in the relevant areas of smart specialization	↑	↔	↔	↔	↔	↔	↔	↔	↑
				Better exploitation of research results for the development of new technologies, products and services by the productive sector	↑	↑	↑	↔	↑	↑	↑	↑	↑
				Increasing applied research in relevant economic sectors, based on cooperative approaches	↑	↑	↑	↔	↑	↑	↑	↑	↑



Positive contribution



Negative contribution



Neutral or marginal and indirect contribution

Source: Own elaboration

In this context, environmental issues, where such effects are more likely to arise from, are related with the improvement of the population welfare and the efficient use of natural resources.

Moreover, taking into account the Specific Objectives, those that may have some impact are related to the promotion of innovation and applied research. Thus, to the extent that it is promoted research, technological development and innovation in the environmental field, it can be expected an effective contribution on issues such as soil, water, air, natural heritage and global climate, always depending on the subject they cover and always in evident consistency with the actions planned in the Eco-Innovation Action Plan (EcoAP).

8.2.2. Specific effects of Axis 2

Axis 2 (Fostering resource efficiency) is the only one in which, *a priori* it could appear some minor negative effects. Such effects would be related to the construction of infrastructure for the production and/or distribution of renewable energy, which may affect the landscape.

However, the type of actions envisaged under the Specific Objective 2.1. is largely headed towards awareness, improving efficiency in the management and promotion of renewable energy production and consumption and not so largely headed to producing them, which minimizes the effective risk arising from such negative effects.

Moreover, the positive effects clearly predominate in both Specific Objectives. First, the potential positive impact of eco-innovation and green growth encompasses all environmental areas, with greater or lesser impact depending on the type of projects that ultimately are implemented.

In particular, the concept of "green growth" is gradually occupying an increasingly importance in the normative speech as a construction able to harmonize environmental and climate concerns with the economic objectives, which is understood as a present and forward-looking.

The measures provided for this area will predictably contribute to lower the pressures on the environment caused by the production and consumption of natural resources, mitigating the negative environmental impacts associated with resource depletion, water and air pollution, species habitats, etc., which gives a cross-cutting character to the specific objective of improving the efficiency of natural resources.

Furthermore, it is notable, for its greater relevance, the reduction of fossil fuels consumption that cause the emission of greenhouse gases (GHG), and therefore, responsible for climate change. Specifically:

TABLE 13. POTENTIAL EFFECTS OF THE TYPE OF ACTIONS EXPECTED FOR AXIS 2

Axis	T.O.	I.P.	SPECIFIC OBJECTIVE	EXPECTED OUTCOMES	ENVIRONMENTAL ASPECTS									
					Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health
2	4	4A	SO 2.1: Fostering renewable energies and energy efficiency	Increased participation and use of local renewable energy sources	↑	↔	↔	↔	↑	↑	↑	↔	↑	
				Greater regional integration of regional Low Carbon Strategies to promote the production and distribution of renewable energy	↑	↔	↔	↔	↑	↑	↑	↔	↑	
				Improved spatial and organisational management, and interaction to encourage the development of the Atlantic territories for the production of renewable energy	↑	↔	↔	↓	↑	↑	↑	↔	↑	
				Increased levels of public and private investment in renewable energy production and distribution	↑	↔	↔	↓	↑	↑	↑	↔	↑	
				Increased awareness and knowledge of civil society, the business sector and other stakeholders on the needs and opportunities arising from renewable energy, contributing to a shift to an economy and society with low carbon emission	↑	↔	↔	↔	↑	↑	↑	↔	↑	
				Greater degree of energy self-sufficiency	↑	↔	↔	↔	↔	↔	↔	↔	↑	
	6	6G	SO 2.2: Fostering green growth, eco-innovation and environmental efficiency	Increased awareness of eco-innovation and eco-efficiency	↑	↑	↑	↑	↑	↑	↑	↑	↑	
				Progress on the efficient organisation of companies and organisations to include the concepts of ecological innovation and eco-innovation	↑	↑	↑	↑	↑	↑	↑	↑	↑	
				Increased research related to green growth	↑	↑	↑	↑	↑	↑	↑	↑	↑	



Positive contribution



Negative contribution



Neutral or marginal and indirect contribution

Source: Own elaboration

- + Reduction of atmospheric emissions causing global warming;
- + Lower contamination of the aquatic and terrestrial environments, producing acidification and eutrophication;
- + Reduction of waste generation such as carcinogenic, radioactive waste and heavy metals released into the atmosphere.

The relativity, as identified in all cases, is related to the reduced financial importance of the projects undertaken and therefore, the small size of their actual impact.

8.2.3. Specific effects of Axis 3

Axis 3 (Strengthening risk management systems) is associated with a Specific Objective, according to which the OP seeks to *strengthen the response capacity of the Atlantic regions to natural disasters and the consequences of climate change*.

This is an objective that has a positive influence on a wide range of environmental issues, though marginal and in a timely manner, and with a well-localised impact on the territory and no cumulative effects.

To the extent that the type of planned actions address the risks associated with flooding, erosion, seismic hazards, fires and other natural disasters, there will be observed positive results in soil, landscape, flora and fauna, water and air, as well as in natural heritage, and welfare of the population.

The effective implementation of measures to strengthen the cooperation regarding risk management and prevention will increase the soundness of institutional capacities of key actors at different levels of government, private sector and civil society and effective coordination between these actors and the levels.

The expected incidence is produced, at least, at two complementary levels:

- + The minimisation of the occurrence of natural disasters as a result of preventive measures both at the institutional level (development of warning systems, improved knowledge, among other measures) and on citizenship (awareness and sensitisation).
- + The correction and attention to the impacts resulting from natural disasters, through the design of joint action plans and mechanisms to compensate and restore the damages.

Therefore, positive effects are expected, though small sized, on material goods, by preventing natural disasters, as well as on natural areas, by preventing their destruction, a fact that would reduce the positive risks to biodiversity, and to other resources and components of the Cooperation Area natural heritage.

TABLE 14. POTENTIAL EFFECTS OF THE TYPE OF ACTIONS EXPECTED FOR AXIS 3

AXIS	TO	IP	SPECIFIC OBJECTIVE	EXPECTED OUTCOMES	ENVIRONMENTAL ASPECTS								
					Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health
3	5	5B	SO 3.1: Strengthening risks management systems	Strengthening resilience and planning for the Atlantic regions on the management of natural disasters and the consequences of climate change and maritime activities of economic actors in the Atlantic area	↑	↑	↑	↑	↑	↑	↑	↑	↔



Positive contribution



Negative contribution



Neutral or marginal and indirect contribution

Source: Own elaboration

8.2.4. Specific effects of Axis 4

Finally, Axis 4 (Improving the protection of biodiversity and enhancing ecosystems' services) poses the achievement of two specific objectives with a different impact on the environment.

- ✦ Improving the protection of biodiversity and ecosystem services generates positive effects on cultural and natural heritage, landscape and biodiversity of the area of cooperation, leading ultimately to greater efficiency in the use of resources and improves population life quality.
- ✦ These last two aspects even cover a greater dimension with regard to the enhancement of natural and cultural assets to stimulate economic development, with a direct impact on the cultural and natural heritage in both cases, being possible to differentiate tourism-related actions and those related to economic enhancement activities.

TABLE 15. POTENTIAL EFFECTS OF THE TYPE OF ACTIONS EXPECTED FOR AXIS 4

AXIS	TO	IP	SPECIFIC OBJECTIVE	EXPECTED OUTCOMES	ENVIRONMENTAL ASPECTS									
					Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health	Population and human health
4	6	6D	SO 4.1: Improving the protection of biodiversity and enhancing ecosystems' services	Greater coordination of environmental management systems	↑	↑	↔	↑	↔	↔	↔	↑	↑	
				Increasing territorial capacity for environmental protection, preservation of biodiversity and improved ecosystem services	↑	↑	↔	↑	↔	↔	↔	↑	↑	
		6C	SO 4.2: Enhancing natural and cultural assets to stimulate economic development	Better use and preservation of natural and cultural assets of the Atlantic Area leading to increased interest in the area and attracting new visitors	↑	↑	↔	↑	↔	↔	↔	↑	↑	
				Generating new products and services that contribute to economic development, creating local jobs and creating synergies that contribute to the progress and welfare of populations	↑	↔	↔	↔	↔	↔	↔	↑	↑	



Positive contribution



Negative contribution



Neutral or marginal and indirect contribution

Source: Own elaboration

These cooperation activities headed particularly to the protection of nature and biodiversity conservation involve, therefore, a favourable impact on the environment. The most benefited aspects will be those in the biotic environment, the landscape, natural areas and cultural heritage. Consequently, the socio-economic environment will also be favoured.

In conclusion, given the thematic focus of Axis 4, the expected results of the type of actions planned will generate, *a priori*, certain effects on different environmental areas, although such elements, always of a positive nature, are characterised, as noted above, by their particular nature (associated with specific actions), indirect and small sized (proportional in all cases to the financial dimension of the co-financed actions).

8.3. EFFECTS ON CONCURRENT SECTORAL AND TERRITORIAL PLANS

The effects of the OP on other plans and programmes, given their limited financial dimension and its thematic and territorial specificity are estimated irrelevant.

However, it is considered desirable to have a complementarity with the other actions to be carried out within the framework of the European Regional Policy and other EU national and regional policies (Eco-innovation Action Plan - EcoAP, the *Life* Programme, etc.).

Moreover, the AA-OP 2014-2020 is not designed to develop related plans or programmes and it has not the power to order their development, contrary to what may happen in other programming cases.

8.4. FINAL EVALUATION OF THE GENERATION OF SIGNIFICANT EFFECTS ON THE ENVIRONMENT

The generated effects on the environment and environmental objectives of the European Union by the Operational Programme of Transnational Cooperation of the Atlantic Area 2014-2020 will not provide a negative sign and will present a more significant indirect and marginal character in those actions focusing on environmental issues for a central theme (such as those expected in Axis 2, 3 and 4). However, as regards Axis 1, it emerges to be necessary to enhance the expected positive impacts of research focussing on environmental issues and eco-innovation.

Therefore, in accordance with the provisions of *Article 3 of Directive 2001/42/EC*, it cannot be concluded that the Atlantic Area Transnational Cooperation Operational Programme 2014-2020 has significant negative effects on the environment.

9. CORRECTIVE ACTIONS PLANNED

To the extent that the OP is not expected to generate significant environmental impacts or to strongly influence the environment, *it is not considered significant to raise preventive measures*. However, in order to promote the achievement of the potential positive effects and eliminate specific effects that might timely result from a project, it is recommended to incorporate elements of environmental integration in the development process of the selection of operations associated with each call.

In this respect, the experience from the 2007-2013 period is useful in order to include the selection criteria of those projects that have had a high degree of consideration, such as:

- + Positive assessment of those projects that raise or disseminate innovations with sustainability goals regarding environmental issues relevant to the Atlantic Area: reducing consumption of materials and energy, reducing pollution, climate change, desertification, etc.;
- + Prioritisation of the projects within protected areas that have already developed management figures, or that encourage the development of these management tools;
- + Development of projects that include aspects of public participation and transparency of information, especially of environmental character;
- + Positive consideration of the projects that have been integrated into regional or national strategic planning, and that have gone through an environmental assessment;
- + Positive assessment of projects integrating environmental objectives and criteria;
- + Particular attention in the evaluation of projects that may affect areas and resources protected by the Natura 2000 Network.

10. PLANNED MEASURES FOR THE ENVIRONMENTAL MONITORING OF THE PROGRAMME

The *Strategic Environmental Assessment Directive (2001/42/EC)* requires that the significant environmental effects regarding the Programme implementation to be subject of monitoring or surveillance in order to identify the possible unforeseen adverse effects, facilitating the adoption of appropriate corrective actions.

According to the guidelines established for this purpose in the "*Guidance Document on the ex-ante evaluation*", such monitoring normally includes the selection of appropriate indicators.

To this end, was carried out a selection of the common productivity indicators for the Objective of European Territorial Cooperation given by the Annex of *Regulation (EU) No 1299/2013* and selected under the OP, which have been considered relevant by the Ex Ante Evaluation.

Therefore, the submission of such indicators is pending, as their selection is waiting to be made under the OP.

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