

AUTONOMOUS REGION OF FRIULI VENEZIA GIULIA

**STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)
OF FRIULI VENEZIA GIULIA ROP ERDF 2014-2020**

Environmental Report

Non-technical Summary

(draft pursuant to Directive 2001/42/CE)

**Central Directorate for Finance, Property, coordination,
Economic and EU Policies Coordination and Programming
Office for the Management of EU funds**

INDEX

Introduction	3
1. The Strategic Environmental Assessment process	3
1.1 Strategic Environmental Assessment	3
1.2 Structure and content of the Environmental Report.....	4
1.3 The consultation phases and the SEA participation pathway.....	5
2. The Regional Operating Programme (ROP) 2014-2020	7
2.1 Objectives and priorities of the OP.....	7
3. The programmatic reference background of the ROP.....	13
3.1 Framework of regional environmental policies.....	16
4. The environmental background	16
5. Analysis of external conformity	22
6.The System of environmental sustainability objectives.....	22
7. Analysis of Likely Effects on the Environment	29
7.1 Potential Environmental Effects of the OP Development Strategy	29
7.2 Considerations on cross-border issues.....	34
7.3 Evaluation of the Environmental Impact.....	35
Assessment of the Environmental Impact applied to the PO RIVER.....	35
8. Orientation for the integration of the environmental component in the implementation phase	Errore. Il segnalibro non è definito.
9. Environmental Monitoring Plan	Errore. Il segnalibro non è definito.

Introduction

In conformity with the legislative package of common European policies for the 2014-2020¹ programming period oriented towards development of national² and regional strategies, the Friuli Venezia Giulia Region developed its own Regional Operating Programme co-financed by the European Regional Development Fund - ERDF within the scope of the Objective, “Investments to favour growth and employment” (ROP ERDF 2014-2020 of the Friuli Venezia Giulia Autonomous Region).

The Treaty of Lisbon and “Europe Strategy 2020” had requested the Government to render an integrated approach, focusing attention on quality of economic and social growth that has to be inclusive and sustainable.

The “Europe 2020 Strategy” and the “7th Environmental Action Plan” determined the operating context in which the environmental initiatives conform to the principle of sustainable development.

Directive 2001/42/EC which integrates the environmental dimension in the strategic decision procedures, is an important contribution to the implementation of community strategies for sustainable development. The Directive established that the programmes co-financed by community funds can be subjected to strategic environmental assessment processes.

This document responds to the need, if not obligation, to annex a non-technical summary to be made available to the public during the consultation phase, and that illustrates the contents of the Environmental Report annexed to the 2014-2020 Regional Operating Programme (ROP) of the Friuli Venezia Giulia Region and is presented according to the methodological orientations contained in the guidelines of the European Commission, “Implementation of the programmes co-financed by community funds of the General Directorate for the Environment of 2003” and the views shared with the Environmental Authority of the FVG Region for the 2014-2020 programme, approved through a Resolution passed by Regional Commission n. 678 of 11 April 2013.

1. The Strategic Environmental Assessment process

1.1 Strategic Environmental Assessment

¹ Regulation (EU) n. 1303/2013 of the European Parliament and Council of 17 December 2013

² Partnership agreements for Italy dated 22/04/2013, presented to the European Commission, which gathers all the Operating Programmes developed at national (PON) and regional (ROP) levels and through which Italy focused its own strategy for territorial development in line with the Union Strategies (particularly, Europe 2020), and established the application and integration modes of the various Funds, as provided by the Regulations.

The Strategic Environmental Assessment as defined in Directive 2001/42/EC regards the assessment of the effects of certain environmental plans and programmes, is the instrument that can ensure a high level of protection of the environment and contributes to the integration of all the environmental factors. It aims at elaborating and adopting draft plans and programmes to promote sustainable development, including those co-financed by the European Union.

The Directive and Regulation (EU) No. 1303/2013 thus established that programmes co-financed by the community funds 2014-2020 can be subjected to strategic environmental assessment. The directive requests the drafting of an Environmental Report and the presentation of a non-technical summary to be diffused to the public together with the Programme proposal, for the purpose of carrying out consultations with the citizens and authorities in charge of environmental matters.

This document is an integral part of the Environmental Report of ROP ERDF 2014-2020 of the Friuli Venezia Giulia Region and presents a summary of said Report.

The environmental assessment process is laid out in phases corresponding to determined stages of the programme and connected to specific participation, consultation and exchange of information of the authorities with environment authorities and the citizens:

- The preliminary scoping phase which defines the programme's scope of influence, its organization and start-up that identified the authorities with environmental expertise who are consulted on the contents and details on environmental matters to be inserted in the Environmental Report.
- The environmental report development phase connected to preparatory works on the Programme proposals, develops the environmental analyses and assessments and identifies the guideline objectives of environmental sustainability. This phase provides for public consultation sessions on the programme proposals related to the environmental report.
- The final decision and dissemination phase in which the Programme is approved, in view of the results achieved in the consultation process and the participation in environmental themes. The final document, "*summarised declaration*," illustrates the modes in which the environmental considerations were integrated into the programme, how the environmental report and consultation results were analysed, and the reasons for the decisions undertaken.
- The implementation, management, and monitoring phases (with indications of the possible corrective actions for the reorientation of the draft plan or programme).

1.2 Structure and content of the Environmental Report

The Environmental Report

- Identifies, describes and evaluates the important impact on environmental components, arising from the implementation of the plan or programme;

- Identifies, describes and evaluates the reasonable alternatives, in light of the territorial scopes of the plan, taking into account the results of the consultation with the relevant authorities;
- Concurs in the definition of the objectives of the plan's strategies;
- Indicates the environmental compatibility standards, reference indicators and related monitoring procedures.

For environmental assessment purposes, we need to define a reference framework of the basic environmental background and a set of referral sustainability objectives in relation to the themes of the Programme, according to which the analyses and evaluations will be conducted.

1.3 The consultation phases and the SEA participation pathway

Directive 2001/42/EC on the SEA established the need for an active participation of the public and relevant authorities to define the orientations and priorities in environmental matters, in order to prepare and adopt plans and programmes that promote sustainable development.

Governance of the ROP ERDF 2014-2020 programming process started when the entire process was launched in December 2011, accompanied by initiatives that involved individuals qualified in preparing the programme, the public, and the data for the institutional and partnership agreements.

General information prepared by Committee No 131 of 24 January 2014 identified the objectives of theme 1 “- To enhance research, technological development and innovation,” theme 3 “Promote the competitiveness of the Medium and Small Enterprises (SME), the agricultural sector (for the FEASR) and the fisheries and aquaculture sectors ” and theme 4 “Support of the transition towards an economy with low carbon emissions in all sectors” (among the 11 thematic objectives indicated by Regulation (EU) No. 1303/2013) on which to base the regional Strategies within the scope of the ROP FESR 2014-2020, and which assigned to each of these the overall financial allocation equivalent to 231 billion euro).

The choice of the thematic objectives took into consideration the results of the partnership agreement, and the principle of thematic concentration of financial resources established by Art. 4 of Regulation No. 1301/2013. Furthermore, part of the resources was allocated to finance interventions for Urban Development and Technical Assistance.

With Resolution No. 678 of 11 April 2013 adopted by the Regional Committee, the Environmental Authority for the 2014-2020 programme of the FVG Region was appointed and set within the Central Directorate for the Environment, Energy, and Policies for the mountain regions. In matters of SEA, the preliminary phase was started up with the Regional Committee's Resolution No. 116 of 24 January, 2014 of Pursuant to L. Decree 152/2006 and the Regional Government Decree (RGD) No. 116 of 24/1/2014, the main individuals involved in the SEA procedure of the ROP FESR are:

- The planning Authority/Community Funds Management Service of the Central Directorate of community policies for finance, patrimony, coordination and community policy planning – Managing Authority with the task of starting up the SEA process simultaneously with the creation of the Plan or Programme, and subsequently develop, determine, adopt, or approve the Plan or Programme itself;
- The actuating Authority (Regional Committee with the technical support of the Central Directorate for the environment and energy) so as to promote the integration of the objectives of environmental sustainability in the sector policies, and compliance with the objectives of the national and European environmental Plans and Programmes.
- The individuals with expertise in environmental matters: Public Administrations and Agencies that may take interest in the impact on the environment arising from the implementation of the Plan or Programme, due to their specific expertise in the environmental field.³
- The public: individuals who suffer or may suffer the effects of the decision-making procedures on environmental matters, or who are interested in these procedures (in view of the present definition, nongovernmental organisations that promote environmental protection and meet the requisites provided by State norms in force, as well as the bigger labour union organizations, and are considered as interested parties).

The **consultation phase on the Preliminary Report (scoping phase)** opened on 3 February 2014 and ended on 5 March 2014; with the aim of divulging the preliminary environmental report (scoping document) dated 12 February 2014, a meeting was held with the environmental Authority, the planning Authority and individual experts in environmental matters.

During this phase the planning Authority together with the Actuating Authority, not being able to exclude beforehand the possible effects on the environment in the confining cross-border territories, saw the need to inform the confining States (Slovenia and Austria) of the start of the procedure and

³ With DGR n. 116/2014 four Regional Agencies were identified for the protection of the environment – ARPA, Healthcare Services, Autonomous Friuli Venezia Giulia Region (Central Directorate of production activities, commerce, cooperation, agricultural and forestry resources, Central Directorate for infrastructure, mobility, territorial planning, public works, university – service for the tutelage of the landscape and biodiversity, Directorate for the environment and energy, - geological service, soil protection service, integrated water discipline service, water resource management, protection of the waters against contamination, service for the atmospheric, acoustic and magnetic and electromagnetic protection, Disciplinary service for the management of wastes and of contaminated sites, Energy Service, Province of Trieste, Province of Gorizia, Province of Udine, Province of Pordenone, National Association of Italian Municipalities (ANCI), Agency of the Parks of Julian Prealps, Agency for the Park of the Friuli Dolomites, WWF Protected Marine area of Miramare, State national Reserve of Monte Cucco and Rio Bianco – State Forestry Corps, Agencies managing the regional reserves, Agency for the protection of fishing, Authority of the Basin of Upper Adriatic Rivers, the Venice Region, Ministry for the Environment and Protection of the Land and Sea, Regional Directorate for Heritage and landscapes of Friuli Venezia Giulia of the Minister for Heritage and Cultural Activities and Tourism (MIBACT).

verify their interest in participating in the consultation phase, as a preventive strategy, so as not to incur subsequently, in a possible rescheduling of the opening of the SEA procedures.. At the same time, the transboundary consultation procedure was launched pursuant to Art. 32 of L. Decree 152/2006, and as required by RGD N. 116/2014, at the Ministry for the Environment a brief information document was drafted on the proposed Programme at its preparatory phase, which highlighted a first evaluation of the irrelevant environmental impacts on the cross-border environment. The Slovenia Republic manifested its interest in participating in the SEA.

The recap of *the Orientation path, sharing and steering toward environmental sustainability of the ROP -ERDF 2014-2020 is therefore as follows.*

Table 1–Initiatives with meetings and discussion during the drafting process of ROP ERDF 2014-2020 and the SEA process

Date	Initiative /Meetings/Participation
6 - 20 November 2013	Start of the consultation phase – involvement of the partnership members in drafting the Programme EU Regulation No. 1303/2013).
9 December 2013 16 December 2013	Meetings with the institutional and socio-economic and territorial partners: Presentation of needs and priorities of the territory.
03 February 2014	Start-up of the preliminary SEA scoping phase.
12 February 2014	Environmental partnership – Meeting with experts in environmental matters.
27 March 2014	Preliminary orientation for the sustainability of the POR FESR. Meeting with the Regional Actuator Organisations of the Programme promoted by the Managing Authority in collaboration with the Environmental authority on the integration of the environmental dimension in the interventions financed by POR FESR.
19 – 29 May 2014	Meeting with the Regional Actuating Organisations of the Programme promoted by the Managing Authority for the sharing of the contributions furnished by the Environmental Authority (document of 8 May 2014 updated on 23 May) for the integration of environmental sustainability in the interventions of the POR.
21 May 2014	Meeting between the Managing Authority, environmental Authority and the Assessors for the sharing of SEA activities.
5 June 2014	Meeting between the Managing Authority and the Environmental Authority, promoted by the Managing Authority for the sharing of the aspects connected to the Monitoring of environmental indicators also in view of the final results of the Regional Actuating Organisations

2. The Regional Operating Programme (ROP) 2014-2020

2.1 Objectives and priorities of the OP

A brief presentation of the specific objectives of the Programme and the actions proposed is shown in the following Table 2.1.

Table 2 – Axes, thematic objectives, Priority for investments and actions of the ROP FESR of the Friuli Venezia Giulia Region 2014-2020

	Thematic objective	Investment priority	Specific objective	Actions AdP	Specific actions proposed in POR FESR FVG
Axes I	OT 1 – Technological Research, development and innovation Reinforce technological research, development and innovation)	Promote the investments of the enterprises in R&I, developing linkups and synergies between the enterprises, research and development centres and the higher education sector, especially the investments in development of products and services, technology transfers, social innovation, eco-innovation, applications in public services, stimulating the demand, the networks, the clusters and open innovation through intelligent specialization as well as support for applied research and technology, the pilot lines, early validation of products, capabilities for advanced manufacture and the first production especially of key technologies and diffusion of technologies with general goals.	1.2 Strengthening of the National and regional innovation system and increasing collaboration between enterprises and research structures and their empowerment.	Action: Supporting implementation of complex projects of research and development activities over a few important thematic areas and the application of functional technological solutions in the realization of the S3 (Act. 1.2.4 AP)	Action 1.2: Complex projects of research and development activities and strengthening of regional innovative systems.
			1.1. Increasing innovation activities of enterprises.	Action: Supporting economic valorisation of innovation through experimentation and adoption of innovative solutions in processes, products and organization formulas, as well as through financing the industrialization of the research results (Act. 1.1.3 AP) Action: Sustain the collaborative activities of R&S for the development of new technologies, new products and services (Act. 1.1.4 AP) Action: Supporting advance technologies of the enterprises through financing of pilot lines and actions of early validation of products and demonstration on a wide scale (Az. 1.1.5 AP)	Action 1.1: Supporting research, development, innovation and industrialization in the sectors of industry, handicraft, commerce and tertiary services.
			1.4 Raising the incidence of specializations in innovations in perimeters applied to high intensity know-how.	Action: Supporting the creation and consolidation of innovative high intensity start-ups of applications and know-how and of spin-off initiatives of research in fields in line with the Strategies of smart specializations (Az. 1.4.1 AP)	Action 1.3: Supporting the innovative start-ups and spin offs

Axis II	OT3 – Promote competitiveness of small and medium enterprises, and of the agricultural sector (for the FEASR) and the fisheries and aquaculture sectors	a) Promote entrepreneurship, facilitating exploitation of new ideas and promoting the creation of new companies also through enterprise incubators	3.5 birth and Consolidation of the Micro, Small and Medium Enterprises	Action : Interventions that support the birth of new enterprises through direct incentives as well as the offer of services and through micro-financing interventions (Az. 3.5.1 AP)	Action 2.1: Incubation for the birth and strengthening of cultural and creative enterprises Action 2.2: Incentives for grants to Micro and Small and medium Enterprises in the scope of devices and instruments realized and financed within the POR FSE
		b) Develop and create new activity models for the small and medium enterprises, especially for internationalisation	3.2 occupational and production development in the areas struck by the diffused crisis of production activities	Action: Interventions to support the regional areas hit by the production activity crisis, to mitigate the effects of the industrial transitions on individuals and enterprises (Az. 3.2.1 AP)	Action 2.3: Interventions to support the areas struck by the diffused production activity crisis
		c) Support the creation and broadening of advanced capabilities for the development of products and services	3.1 Re-launch the production system’s propensity towards investments	Action : Aid for investments in machinery, plants and intangible assets, and accompanying the reorganisation and restructuring processes (Az. 3.1.1 AP)	Action2.4: aid to investments for the competitive re-launch of the SME. Action 2.5: Aid to investments of tourism enterprises for the qualification of the offer and innovation of products and services Action 2.6: Aid to ITC investments for the benefit of the SME
		d) Support the capabilities of the small and medium enterprises to grow on the regional, national and international markets and take part in innovation processes.	3.6 Improve access to credit lines, financing of the enterprises and management of risks in agriculture	Action: Empower the system of public guarantees for the expansion of credit in synergy between the national and regional warranty systems, favouring the forms of rationalisation which upholds also the role of more efficient and effective co-financing. (Az. 3.6.1 AP)	Action 2.7: Guarantee funds for credit access

Axis III	OT4- Sustainable Energy and quality of life	c) Support Energy efficiency, intelligent management of energy and the use of renewable energy in the public infrastructures, and in the housing building works	4.1 Reduction of Energy consumption in public buildings and structures for public, residential and non-residential utilisation and integration of renewable sources	Action : Promotion of the eco-efficiency and reduction of primary energy consumption in public buildings and structures: renovation of single or complex of buildings , installation of intelligent telecontrol systems, regulation, management, monitoring and optimising energy consumption (smart buildings) and of contaminating emissions also through the use of mixed technologies. (Az. 4.1.1 AP)	Action 3.1: improving energy performance of public buildings and structures
Axis IV	Urban development	<p>This axis involves many priorities of complementary investment of the different thematic objectives aimed at obtaining the maximum contribution also in terms of effects produced in the regional context:</p> <p>3a) Promote, entrepreneurialism, especially by facilitating economic exploitation of new ideas and promoting the creation of new businesses, also through the business incubators</p> <p>4c) Support energy efficiency, intelligent management of energy and use of renewable Energy in public infrastructures, inclusive of public buildings, and in the sector of residential building works</p> <p>4e) Promote strategies for low carbon emissions for all types of territories, especially the urban areas, including the promotion of sustainable multimodal urban mobility and pertinent of adaptation and mitigation</p>	<p>4.5 birth and consolidation of the Micro, Small and Medium Enterprises</p> <p>4.1 Reduction of Energy consumption in public buildings and structures for residential and non-residential use and integration of renewable sources</p> <p>4.6 Increase of sustainable mobility within the urban areas</p> <p>4.7 Improving the conditions and standards of offer and use of cultural, material and immaterial heritage in the areas of attraction through the integrated valorisation of territorial resources and competences</p>		Action 4.1 Promotion of integrated development and sustainable development projects

			4.8 Competitive repositioning of the touristic destinations through the integrated valorisation of territorial resources and competences		
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The actual phase in progress of the drafting of the ROP FESR FVG 2014-2020 presents the following breakdown of the Programme's capital base:

Axis –Thematic Objective	Total Axis – Thematic Objective (In Euro)	Total Axis – Thematic Objective %
Axis I – OT1 – Strengthen technological research, development and innovation	77,126,203.00	33.42%
Axis II – OT3 – Promote competitiveness of the Small and Medium Enterprises (SME) of the agricultural sector (for the FEASR) and the fishery and aquaculture sectors	75,927,351.00	32.90%
Axis III – OT4 – Support the transition towards an economy of low carbon emissions in all sectors	56,945,513.00	24.68%
Axis IV –Urban Development	11,588,911.00	5.02%
Axis V – AT Technical Assistance	9,191,206.00	3.98%
TOTALE PROGRAMMA	230,799,184.00	100%

3. The programmatic reference context of the ROP

The following table furnishes the list of environmental issues considered as the most important national and international environmental references⁴ for the orientation towards sustainability, and as the overall programmatic referral framework for the programme, compliance to which requires the need to select the objectives towards which the choices should tend.

⁴ General document for orientation of *European Union Strategies in matters of Sustainable Development (SSS)*, that innovated the Göteborg Strategy of 2001 and furnished a strategic frame work for the EU policies in environmental matters for the period 2002-2012; *European Strategy 2020; Roadmap for the reduction of greenhouse gas emissions*; European Strategy for the adaptation to climate change, and to the Environmental Action Programme VI and VII; document **“Policies and measures for the sustainable growth of Italy – A 5-point strategy for the sustainable development in Italy,”** contribution of Minister Corrado Clini to the government's growth plan dated 21 August 2012; **“National Energy Strategy.”**

Table 3 – Important International and National strategies for the orientation towards sustainability

GLOBAL EQUILIBRIUM	
Climate change	Gradual reduction of greenhouse gas emissions [Framework for Energy and climate policies for the period 2020 to 2030, COM (2014) 15 fin]
	Making Europe more flexible to climactic change [EU Strategy of adaptation to climate change COM(2013) 216 def.]
	Reaching levels of quality of air that do not imply risks or negative and important impact on human health and the environment 6 th Environmental Action Plan [COM (2005) 446]
Biodiversity	Put an end to the loss of biodiversity and the decline of the systemic eco-systems services by 2020 and recovery within the possible limits, intensifying at the same time the EU contribution to prevent the loss of biodiversity at world levels , COM(2011) 244 def.]
	Substantially reduce within the National territory, the impact of climate change on biodiversity, defining the suitable measures of adaptation to changes induced and mitigate their effects and increase flexibility of the natural and semi-natural ecosystems. [National Strategy for Biodiversity 2010].
NATURAL RESOURCES	
Air	Thematic strategy on the atmospheric pollution COM(2005)446
	Proposal of a new thematic Strategy on the quality of air concerning the national reduction of certain atmospheric contaminants COM(2013) 920 final
Soil	Protect the soil and guarantee the use of a sustainable Strategy for the protection of the soil
	Promote a sustainable use of the soil, paying particular attention to the prevention of phenomena of erosion, deterioration and contamination (VI EAP)
water	Improve management and avoid over exploitation of renewable natural resources (water) – Sustainable Development Strategy 2006

	Directive 2000/60/EC (<i>Water Framework Directive -WFD</i>) on the waters for the protection of the water resources available and the sustainable management of water.
Urban environment	Action of the local governments for <i>local sustainability and climate protection</i> (urban mobility, construction works, wastes , urban design, social dynamics and partnership projects with the enterprises) <i>Sixth European Conference of the cities</i>
Landscape and cultural heritage	Safeguard, manage, in a perspective of sustainable development, and planning of all the European landscapes European Landscape Convention
ENVIRONMENTAL THEMES	
Population and human health	Safeguarding public health and improving protection with respect to threatening factors (atmospheric pollution, noise,)[European strategy for the environment and health.COM/2003/338 def.]
Energy	Transition towards a sustainable, safe and competitive energy system [Framework for Energy and climate policies for the period from 2020 to 2030, COM (2014) 15 fin]
Wastes	Transforming the Union into a low carbon emission economy, efficient in the green and competitive use of resources, [7th Action Plan for the environment, approved by the European Commission of 29 November 2012]
Energy efficiency and eco design	Promoting forms of innovation that reduce the negative impact on the environment, increasing resistance to the environmental pressures or with a more effective and responsible use of natural resources [Action Plan for eco-innovation [COM (2011) 899 def.]
Sustainable mobility	Improving the efficiency of transportation white paper COM(2011)144 “A roadmap towards a competitive economy with low carbon emissions in 2050,” COM (2011)112.

3.1 Framework of regional environmental policies

On a regional scale, there have been various territorial and sector plans and programmes recently approved or being updated that give a reference framework for the POR FESR.

- Government plan for the territory
- Regional energy plan
- Regional plan for the improvement of air quality
- Action plan to limit and prevent episodes of acute atmospheric pollution
- Regional plan for urban waste management (PRGRU)
- Regional plan for the protection of water bodies (PRTA)
- Management plan for drainage basins of the eastern Alps
- Regional plan of infrastructure for transportation, mobility, merchandise and logistics
- Regional plan for local public transportation (PRTPL).

The reference framework is furthermore integrated with policies in matters of **biodiversity, conservation, management, development and promotion of protected areas and forestry management**.

4. The environmental background

The construction of the reference environmental scenario is done through a set of information of various types: environmental type of data and indicators, territorial and socio-economic data available from regional and national organs (territorial information system, Regional territory, ARPA environmental agency, data taken from ISPRA, thematic databanks from universities, socio-economic data from ISTAT, reports on the state of the environment).

Particularly, the environmental background is developed starting from the reference framework, “Main environmental critical factors and response actions for the territory of the Friuli Venezia Giulia Region (RGD no. 2405 of 13.12.2013)” as directed towards the regional Policy of cohesion 2014–2020, prepared by the inter-directional Working Group in support of the Environmental Authority, on the basis of the most updated critical signs reported in the:

- Sector regional plan RSA 2012 (ARPA FVG),
- Specialised studies and reports

Analysis of the single components or environmental themes was done according to the DPSIR logic scheme oriented towards highlighting the critical factors of the territory and the response actions to improve the state of the environment.

The summary of the background analysis is shown in the following table. The state of the indicators considered in the analysis is shown in a schematic manner through the following symbols:

-  State and/or trend with positive valence,
-  State and/or trend with intermediate valence,

- State and/or trend with negative valence compared to the norm objectives or to quality of the reference.

Table 4 – Summary of context analysis

COMPONENTS	CRITICAL FACTORS and extension of the phenomenon on the territory	Possible response to critical factors identified (the answers correspond to lines of action proposed to respond to the main critical factors in the document annexed to RGD n.2405 del 13.12.2013, for the themes discussed in the document)	Data source
Climactic factors	 ❖ Increase of medium temperatures; diffused phenomenon	<ul style="list-style-type: none"> ✓ Improve Energy efficiency in the final uses and promote the intelligent networks ✓ Improve and empower the use of renewable sources and promote the production and low carbon content consumption 	ARPA FVG
	 ❖ Alteration of the seasonal distribution of rainfall; diffused phenomenon	<ul style="list-style-type: none"> ✓ Incentivise sustainable use of biomasses and/or residues of industrial production as energy sources ✓ Promote mitigation interventions by improving management of agricultural ecosystems with incentives for minimum tillage and the reutilisation of agricultural residues 	ARPA FVG
	 ❖ CO ₂ ; diffused phenomenon	<ul style="list-style-type: none"> ✓ Promote interventions of mitigation through the management of the forestry ecosystems oriented towards the capture of carbon and sustainable use of the biomasses and forest residues and incentivise short energy production chains ✓ Promote mitigation interventions through transport policies that prefer the modes with less impact on the climate 	ARPA FVG
Air	 ❖ PM ₁₀ : critical areas: low plains, in Pordenone, Trieste (coastal zones) exceeding the threshold of 35 days. With average concentrations > 50 ug/mc; diffused phenomenon ❖ NO _x : Critical factors associated to the main urban and industrial centres, harbours and main connecting roads; diffused phenomenon ❖ O ₃ configured as a secondary pollutant deriving from the interaction of sun rays with different components among which especially PM ₁₀ and the NO _x : risk of exceeding the limits diffused over the entire regional territory; diffused phenomenon	<ul style="list-style-type: none"> ✓ Adjustments and improvement of heating systems ✓ Modernizing industrial plants ✓ Incentivise collective transportation (preferring transport not conducted on wheels) that is, using alternative means of transport (e.g. hybrid/electric cars) and multi-mode systems 	ARPA FVG, INEMAR ARPA and annual reports on quality of air

	<ul style="list-style-type: none"> ❖ Growth of the emissions associated to agriculture and domestic combustion of wood for heating 		
Soil	<ul style="list-style-type: none"> ❖ Growth of the phenomenon of soil consumption: urbanised soil has increased by 5.776 ha, the agricultural soil lost was 6.482 ha, with a mean of urbanised soil daily of 8,000 sq. m. The speed of urbanisation per head is particularly high and is at 2.5 sq. m /head*year; diffused phenomenon ❖ Presence of contaminated sites mostly due to hydrocarbons and increase of sites contaminated by agricultural activities; localised phenomenon 	<ul style="list-style-type: none"> ✓ Reduce soil consumption by introducing compensation mechanisms, incentives (recourse to local tax means) and environmental regeneration and/or recovery and priority re-usage of abandoned/downgraded areas as well as urban/constructions requalification 	ARPA FVG, ISPRA; ISTAT
	<ul style="list-style-type: none"> ❖ Dangerous state of regional territory; localized phenomenon 	<ul style="list-style-type: none"> ✓ increasing flexibility of physical territory through planning of works and preventive measures ✓ Completing and updating the known cartographic instruments and monitoring/management ✓ Improving the assessment, prevention and management of natural disasters like floods, landslides, avalanches and erosions 	Region FVG
Water	<p>Surface waters:</p> <ul style="list-style-type: none"> ❖ Regional water bodies are at an average “good/sufficient” ecologic condition with worse assessments in the lowlands where there seems to be a particularly evident impact retraceable mainly to pressures diffused by intensive agriculture, and due to other factors like depurators that are not always correctly proportional, artificial construction works interventions and fish culture; diffused phenomenon 	<ul style="list-style-type: none"> ✓ re-naturalization of river beds and pertinent strips of water bodies ✓ promote the creation and diffusion of hedges and buffer strips, and their upgrading through greater structures ✓ promote low input agriculture (of fertilizers and phyto-treatments) ✓ promote the completion and improvement of sewerage and depurating systems ✓ reduce the diversion of water streams for hydroelectric purposes. 	ARPA FVG
Water	<p>Coastal marine waters:</p> <ul style="list-style-type: none"> ❖ The ecologic and trophic state of the 19 coastal water bodies are generally in good or excellent conditions with the exception of the Gulf of Panzano area influenced by the Isonzo river and Monfalcone settlements;; diffused phenomenon 	<ul style="list-style-type: none"> ✓ More effective reduction and use of fertilization in agriculture in the drain basin ✓ Recover water circulation and exchange in the confining lagoon areas characterised by scarce exchange of the water masses 	ARPA FVG

		<ul style="list-style-type: none"> ✓ Promote the completion and improvement of sewer and depurative systems, also through phyto-depuration and with the use where needed, of disinfection systems with low environmental impact 	
Water	<p>Underground waters</p> <ul style="list-style-type: none"> ❖ Chemical state: critical in the zones of the Udine plains due to the presence of nitrates and phyto-pharmaceuticals and localised presence of Cr VI and tetrachloroethylene; in the Pordenone area due to nitrates and herbicides and chlorides; in the Cividale and Collio zones due to the presence of nitrates and herbicides; diffused phenomenon ❖ Capture of underground water bodies: mostly wells subjected to grants are localised below the water source line. Generally (excluding the domestic usage) highlighting the following usage: 41.0% of capture is estimated for fishery purposes, 30.8% for irrigation, 15.6% for drinking and 9.3% for industrial uses; diffused phenomenon 	<ul style="list-style-type: none"> ✓ More efficient use and reduction of wash out of nitrates, incentivizing low input agriculture (of fertilizers and plant protection treatments) ✓ Reducing collection from aquifers (for domestic use, fishery, industrial, irrigation) also by renegotiating the grants 	ARPA FVG
Biodiversity	<ul style="list-style-type: none"> ❖ Areas protected by law (protected areas, contiguous areas, safeguard zones, SIC, ZPS) <hr/> <ul style="list-style-type: none"> ❖ substantial disregard of the natural agricultural system (e.g.: reduce intra-farm hedges, wood areas,...) and mountain areas (e.g.: loss of grazing pastures...) and an increase in “communes” territories; diffused phenomenon ❖ downgraded habitat; diffused phenomenon ❖ Variation in forestry surfaces; diffused phenomenon 	<ul style="list-style-type: none"> ✓ Promote the creation of great areas of ecological (e.g: at provincial or STL6 levels) and eco-systemic diversification to reduce fragmentation of the territory and increase the ecosystems functions also in relation to climate change ✓ Direct interventions for conservation and recovery of the habitat, starting from the protected land and lagoon areas, and of species according to the diffusion fringing reef ✓ Interventions to fight the diffusion of invasive allochtonous species with eventual restocking of autochthonous populations 	Region FVG
Historical-cultural heritage and landscape	<ul style="list-style-type: none"> ❖ Presence of atmospheric pollutants, deriving from anthropogenic activities that may provoke deterioration of the historical-cultural heritage; diffused phenomenon <hr/> <ul style="list-style-type: none"> ❖ important presence of archaeological, architectonic and urbanism and natural sites ❖ sites recognized by UNESCO as World Heritage Sites ❖ high cultural demand 	<ul style="list-style-type: none"> ✓ Need to conserve particularly valuable architectonic and landscapist and environmental artefacts and elements 	Region FVG ISTAT

<p>Anthropological environment</p>	<ul style="list-style-type: none">  ❖ Acoustic pollution, localised phenomenon  ❖ Production of wastes; diffused phenomenon  ❖ Presence of asbestos, diffused phenomenon 	<ul style="list-style-type: none"> ✓ Reduced waste production, intervening in the industrial productive cycle ✓ Promotion of the reutilisation of scraps as sub-products and recovery/reuse of wastes ✓ Reclamation actions in conformity with the priority of interventions identified through updating of census returns and mapping 	<p>Region FVG ARPA FVG</p>
<p>Energy</p>	<ul style="list-style-type: none">  ❖ Slight reduction of energy consumption; diffused phenomenon  ❖ Increased efficiency of energy generation and production of energy from renewable resources; diffused phenomenon  ❖ In 2012 there was a deficit of electrical energy consumption equal to – 4.3%; , diffused phenomenon 	<ul style="list-style-type: none"> ✓ Promoting Energy recovery and energy saving systems, adjustable and intelligent processes, instruments for the planning and management of production from the perspective of energy. 	<p>Region FVG Terna, Manager of the national network transmission</p>
<p>Wastes</p>	<ul style="list-style-type: none">  ❖ Constant increase of separate waste collection; diffused phenomenon  ❖ Decrease in quantity of special products waste; diffused phenomenon  ❖ Lack of plants dedicated to wastes derived from industrial activities and those produced by treatment of urban and special wastes; diffused phenomenon 	<ul style="list-style-type: none"> ✓ Promoting and creating an integrated system of waste treatment plants that respond to the waste production and economic activities, and terminate the urban waste treatment cycle 	<p>Region FVG ARPA FVG</p>

5. Analysis of external conformity

Upon evaluating the Plan, external conformity to the environmental sustainability objectives is verified and analysed, particularly at regional levels. The analysis aims to identify areas that conform/contradict the national and regional plan. ⁵.

Analysis of the coherence to policies and strategies in sustainable development matters which the OP undertakes is one of its objectives, albeit in some cases there was the need to strengthen the possible conformity and compatibility and therefore reorient the Programme actions. The specific objectives of the OP conform to environmental norms, especially in the rationalisation of energy and limitation of atmospheric emissions from production activities. There were no contrasting external policies in matters of environmental protection.

6. The System of environmental sustainability objectives

Defining the environmental sustainability objectives is fundamentally important in the SEA process since it is precisely on the basis of such objectives that the analysis of the Programme's expected effects is realised. Thus the evaluation of the ROP's contribution to environmental protection [...] is important for the draft plan or programme and the manner in which these objectives were taken into consideration during the preparatory phase .”

The following table furnishes the list of the main sustainability reference drivers, general objectives that may be taken and specific guidelines for the Programme's environmental sustainability objectives. The specific reference sustainability objectives of the ROP FESR were identified according to primary factors, the environmental components (air and climate factors, water, soil, flora, fauna and biodiversity, material and cultural assets, landscape, population and human health), and interrelation factors (mobility, energy, wastes, natural and anthropogenic risks)

The integration of the principle of environmental sustainability may be guaranteed also by intervening indirectly on the specific objective of smart and inclusive growth.

During the Programme's entire preparatory pathway, the regional action was directed to favour a development of the production structure, paying attention to the sustainability policy in terms of “ecological conversion” of the production plants, by incentivizing efficient production that ensures improvement of environmental performance, savings of resources, reutilisation and recycling – based on technological innovation.

In this way, the environmental objectives regarding resources and their efficient utilisation become the prerequisites for fulfilment and a condition for the efficacy of the economic development objectives.

⁵ EU action plan for the environment up to 2020, Strategic environmental action for sustainable development in Italy, Territorial governance plan, Regional Energy plan, regional plan for the improvement of the quality of air, Action Plan for the limiting and prevention of acute episodes of atmospheric pollution, Regional plan for urban waste management, Regional Plan for the protection of the waters, Management plan for hydrographic basins of the eastern Alps, Forestry management norms, regional Bill 7/2008, management of protected areas, regional Plan of infrastructures for transport, mobility, merchandise and logistics, Regional Plan for the local public transportation.

However, the table highlights both the specific reference objectives for which the conformity level is more direct and immediate (such as, “reducing the climate-changing gas emissions,” “Promoting the rational use of energy and significant reduction of final energy consumption”), as well as the objectives to which the actions of the ROP may contribute in a significant but more direct way, (such as, “pursuance of sustainable and long-lasting use of water resources,” and “increase of the reduction, recovery and recycling of wastes”).

Table 5 - Important International and National references, general reference objectives and sustainability objectives of ROP FESR 2014-2020

Main references	General reference objectives	Referral sustainable environmental objectives of POR FESR 2014-2020
Climate change		
<p>Gradual reduction of greenhouse gas emissions /Framework for Energy and climate policies for the period 2020- 2030, COM (2014) 15 fin]</p> <p>Make Europe more flexible to climate change [EU Strategy for adjustment to climate change, COM(2013) 216 def.]</p>	<ul style="list-style-type: none"> ▪ Adoption of the best techniques available to reduce greenhouse gas emissions in the construction works, transport, industry sectors. ▪ Target the global reduction of green house gas emissions by 80-95% within 2050 [COM(2011) 112 definitive] ▪ Target the reduction of CO2 emissions eq to13/ by 2020 in the sectors non ETS compared to 2005 [Europe 202s0 a strategy for intelligent, sustainable and inclusive growth COM(2010) 2020 def.] ▪ Promote adjustments in fundamental vulnerable sectors with conservation and innovation of management practices of the territory in light of the changed conditions 	<p>C1 – Reduce climate changing gas emissions</p>
Air		
<p>Reach the quality levels of air that do not imply risks or negative impacts on human health and the environment 6th EAP⁶ [COM (2005) 446]</p>	<ul style="list-style-type: none"> ▪ Quality of air recovery measures in the sectors mainly responsible for polluting emissions (biomass combustion, merchandise and passenger transport, civil and industrial heating, and Energy production). ▪ Increase of rates of movements done in the urban and extra-urban context through sustainable transport systems. ▪ Reduce polluting emissions with particular attention on PM10, NO2 and ozone forerunners 	<p>AR1 - improve the quality of air by reducing the polluting emissions with particular attention to PM10, NO2 and the ozone forerunners</p>
Soil and natural risk		

⁶EAP Environmental Action Plan

Main references	General reference objectives	Referral sustainable environmental objectives of POR FESR 2014-2020
<p>Protect the soil and ensure sustainable usage [Strategy for the sustainable use and protection of the soil, COM(2006) 31 def,] Promote the sustainable use of the soil with particular attention to prevention of erosion, deterioration and contamination phenomena (VI Environmental Action Plan)</p>	<ul style="list-style-type: none"> ▪ Promote a sustainable use of the soil with particular attention to the prevention of phenomena of erosion, deterioration, contamination, desertification ▪ Reducing and improving the quality occupation of soil also in view of the ecological demands of the various territories involved [Regional Territorial Plan, 2011] ▪ Contrast and limit degradation processes and menaces, diminishing of organic matter and local or diffused pollution, compaction and drop in soil biodiversity 	<p>S1 – Reduce soil consumption and promote environmental regeneration and/or reclaim interventions and priority reuse and urban/building requalification.</p>
<p>Institute a framework for the assessment and management of risks of floods in order to reduce the negative consequences for human health, cultural heritage and business activities [Directive 2007/60/EC related to assessment and management of risks of floods]</p>	<p>Guarantee an adequate safety level of the territory through:</p> <ul style="list-style-type: none"> ▪ A re coup of the natural systemic functions (also by reducing artificial elements arising from protective works), reactivation and requalification and protection of the territory’s environmental characteristics, reactivation of fluvial areas for recreational purposes; ▪ Restoration of the fluvial areas and the water system as central elements of territorial setup of the drainage basin ; ▪ Achievement of compatible soil usage conditions with the characteristics of drainage systems and basins, set to achieve stabilization and consolidation of the soils and reduce flood overflows. 	
Water		
<p>Ensure an adequate level of all surface and underground water bodies, preventing pollution and promoting sustainable use of water resources (VI Environmental Action Plan)</p>	<ul style="list-style-type: none"> ▪ Pursue the sustainable and durable use of water resources, with priorities for drinking waters (water savings, elimination of wastage, reducing consumption, increasing re cycling and re-use) – Dlgs 152/2006 ▪ Increase water efficiency of buildings ▪ Reduce the capture of water streams for hydroelectricity purposes ▪ Protect the quality of surface and deep waters, particularly with regard to pollution by nitrates and phyto-pharmaceuticals [Water Bodies Protection Plan] 	<p>AQ1 – Pursue sustainable and durable use of water resources</p>
Biodiversity		

Main references	General reference objectives	Referral sustainable environmental objectives of POR FESR 2014-2020
<p>Put an end to loss of biodiversity and decline of ecosystem services within 2020 and reinstate within the possible limits the EU contributions to stop the loss of biodiversity at worldwide levels, COM(2011) 244 def,]</p>	<ul style="list-style-type: none"> ▪ Protect the links and functions of ecologic systems and the relevant services through green infrastructures. ▪ Stop deterioration of the status of all species and habitats and achieve better and quantifiable improvement of their state Objective by 2020 improved state of conservation in double number of habitats and 50% more in the species subject to assessment conducted under the habitat directive 	<p>B1- protect the connections and functions of the ecologic systems and achieve greater improvement of the state of the species of wild flora, the habitat and landscapes</p>
<p>Integrate conservation of biodiversity in economic and sector policies, also as an opportunity to create new jobs, strengthening the comprehension of the benefits of ecosystem services that arise and the awareness of costs implied in their loss.</p>	<ul style="list-style-type: none"> ▪ Prevent, reduce to the minimum and mitigate the negative effects of the invasive exotic species on biodiversity and the eco-systemic services, targeting likewise to limit the social and economic damages 	
<p>Landscape and cultural heritage</p>		
<p>Promote the safeguard, management, and planning of landscapes in order to conserve or improve quality and in order that the populations, institutions and territorial entities acknowledge their value and interest [European Landscape Convention]</p>	<ul style="list-style-type: none"> ▪ Integrate, protect and value the landscape in the territorial transformation processes, also as an important aspect for a competitive regional economy 	<p>PP1 –Guarantee protection, valuation of the natural territorial and landscape contexts and protect the natural and cultural and incentivise sustainable enjoyment</p>
<p>Quality of life</p>		
<p>Action of local governments for local sustainability and protection of the climate (urban mobility, building works, wastes, urban planning, social dynamics and partnership projects with the business world) Sixth European Conference for sustainable cities, 2010</p>	<ul style="list-style-type: none"> ▪ Contribute to improving the quality of life and the safeguard of public health through an integrated approach focusing on the urban areas 	<p>PS 1- Promote the improvement of the quality of life</p>
<p>Promote new transport modes so as to be able to move greater volumes of merchandise and passengers using these modes (or a mix of modes) of more efficient means of transport [Roadmap towards Europe’s more efficient use of resources e, COM(2011) 571]</p>	<ul style="list-style-type: none"> • Promote the sustainable mobility of persons and merchandise in the urban areas and between the urban and rural areas • Improve the multi-mode connections with the main urban and logistic centres 	
<p>Energy</p>		

Main references	General reference objectives	Referral sustainable environmental objectives of POR FESR 2014-2020
<p>Transition towards a sustainable, safe and competitive energy system [Framework for Energy and climate policies for the period 2020 to 2030, COM (2014) 15 fin]</p>	<ul style="list-style-type: none"> ▪ Increase the production and consumption of renewable bio-energies (solid and liquid biomasses, biogas) ▪ Increase the rate of energy demand covered by distributed generation 	<p>E1 – Promote recourse to renewable energy</p>
<ul style="list-style-type: none"> ▪ Reduction of greenhouse gas emissions 21% compared to 2005, reduction by 24% of primary consumptions and reaching 19-20% of the incidence of renewable energy on final gross consumption, especially the incidence of renewable in the electricity sector equal to 35-38% , equal to gas[National Energy Strategy”] 	<ul style="list-style-type: none"> ▪ Improve by 10% the objectives proposed by M. Decree Burden Sharing within 2020 with special reference to thermal production from renewable sources -Target to bring to 20 % the rate of renewable energy in its energy mix; reach energy efficiency of 20 % by 2020. [Roadmap towards a competitive low carbon emission economy in 2050” [COM(2011) 112 def] 	<p>E2 – Promote the rational use of energy and a greater reduction of final energy consumption</p>
Wastes		
<p>Protect the environment and human health by preventing or reducing the negative impacts of production and waste management, reducing overall effects of the use of resources and improving their efficacy [Directive 2008/98/EC regarding wastes]</p>	<ul style="list-style-type: none"> ▪ Reduction of hazardous wastes ▪ Adoption of the best techniques available finalised in preventing the production of wastes and reducing their quantity and harmfulness ▪ Increase the rate of reclamation of Energy and wastes in compatible environmental conditions promote the use recyclable/recycled and reclaimed material with less impact on the environment – Target: within 2020, prepare for the reuse and re cycling of wastes like paper, metals, plastic and glass coming from homes and possibly of other origin, in the measure in which these flows of wastes resemble the domestic ones, with overall increase of at least 50 % in terms of weight [Directive framework on wastes 2008/98/EC] – Target: by 2020, prepare for the reuse, re cycling and other types of reclamation of material, including refill operations that use wastes in place of other materials, increased by at least 70% in terms of weight [Directive framework on wastes 2008/98/EC] 	<p>RF1 – Enhance reduction, reclamation and recycling of wastes</p> <p>RF2 – Favour the adoption of the best techniques available to reduce production of wastes and their harmfulness</p>
Contaminated and industrial risk sites		
<p>Protect the population, infrastructures and settlements from natural and anthropic risks</p>	<ul style="list-style-type: none"> ▪ Recoup and reclamation of deteriorated, abandoned and disused areas 	<p>SR1- Protect the soil from peak and diffused contamination also through recovery of disused sites and reclamation of contaminated sites</p>

Main references	General reference objectives	Referral sustainable environmental objectives of POR FESR 2014-2020
Use of Natural Resources , green and clean Economy		
<p>Promote forms of innovation that reduce the negative impact on the environment, increasing the resistance to environmental pressures or resulting from a more effective use of natural resources [Action plan for eco-innovation [COM (2011) 899 def.]</p> <p>Improve the products and modify the consumption models, promoting sustainable production and consumption models, oriented towards an efficient use of [Roadmap towards Europe’s more efficient use of resources, COM(2011) 571 def.]</p> <p>Promote the specialisation of the territories in the <i>clean economy</i> sector through development and empowering of Technological clusters</p>	<ul style="list-style-type: none"> ▪ Promote environmental technologies able to reduce the pressures on natural resources 	<p>RG1- Promote new products, consumption models and forms of innovation that reduce the negative incidence on the environment, favouring the efficient use of resources and promoting sustainable production and consumption models</p>

7. Analysis of Possible Effects on the Environment

7.1 Potential Environmental Effects of the PO Development Strategy

The potential effects associated with the implementation of the programme and the guidelines for the integration of the environmental components in the deployment phase are evaluated with reference to background analysis and the criticality of the territory, while paying attention to every environmental component of interest and taking into account all the objectives of sustainability.

In brief, it is estimated that the programme may result in a significant opportunity to improve the environment not only in terms of the reduction of greenhouse gas emissions and rationalization of the energy system, but will also respond to environmental pressure through a more efficient and responsible use of natural resources.

Taking into account the evaluation of the ROP it is estimated that the potentiality of the actions promoted by the programme will contribute to achieving its sustainability goals. In this sense, the single action is assessed in relation to the possible contribution it may generate if suitably applied, and therefore consistent adherence to sustainable development in the interventions is necessary. It is evident that at this stage of the formulation of the programme, many of these interventions contain elements associated to environmental sustainability, made up of possible criterion of selection/awarding, as in “The project’s capacity to contribute to the sustainability of the environment” (Axis 1) and “The capacity of the interventions to determine a reduction in the environmental impact.”

The analysis highlights more or less the potential of a specific and definite objective or action to contribute to sustainability, and which should be adequately applied to development that will protect and safeguard the resources (actions associated with the eco-management of the territory and human activities), in relation to the diverse territorial realities that determine specific critical issues and opportunities.

The potential qualitative effects are estimated in the chart below: the colour index is used to indicate a positive/negative aspect of the environmental effect; the letter codes indicate the magnitude of the negativity of the effect (R for regional, L for local and P for punctual).

Table 6 – Representation of the impacts and synthetic judgements in relation to the components and environmental factors

Evaluation of the significance of these effects	Symbols
Potential substantial negative effect Attributed to cases where the action presents a direct and potentially negative effect on the components/environmental themes and requires definite guidelines associated to the environmental sustainability in the implementation phase.	
Potential negative effect Attributed to cases where the action has an indirect and potentially negative effect on the components/environmental theme and requires definite guidelines associated to the environmental sustainability in the implementation phase.	

Potential and substantial positive effect Attributed to cases where the action has a direct and potentially positive effect on the components/environmental theme and requires definite guidelines associated to the environmental sustainability in the implementation phase.	
Potential positive effect Attributed to cases where the action has an indirect and potentially positive effect on the components/environmental theme and requires definite guidelines associated to the environmental sustainability in the implementation phase.	
Effect cannot be determined, needs further studies	
Absence of report	-----
Effect on a regional scale	R
Effect on a local scale	L
Effect on a punctual scale	P

Axis 1 – OT1 Technological Research Development and Innovation

In general, the Axis 1-OT1 indicates the potential to determine positive environmental effects. Even on the basis of registered results of the preceding programme, research activities, technological development and innovation are designed to develop highly innovative technologies that take into account lesser consumption of resources and reduced environmental impact. However, it is difficult to imagine the specific environmental effects of intangible assets such as investment in support for research and the economical evaluation of the innovation, at least in the short term.

	Dynamic Changes	Air	Ground	Water	Biodiversity	Landscape	Cultural Heritage	Population and Health
Axis 1 OT1								
Encourage research, technological development and innovation								
Investment priorities: 1b. "Promote investments in business enterprises in R&I and in the higher education sector, develop relationships and synergies among businesses and establish centres of research and development."								
1.1b.1 Increase of innovation activities in business enterprises								
1.1b.1.3 Support the economic value of innovation through the experimentation and adoption of innovative processes, in products and in organizational formation as well as financing the development of research results	R	R	----	R	----	----	----	----
1.1b.1.4 Support the collaboration of R&D activities for the development of the latest sustainable technologies of products and services	R	R	----	R	----	----	----	R
1.1b.1.5 Support technological advancement of business enterprises through the financing of pilot production lines and early validation of products and its large scale presentation	R	R	----	R	----	----	----	----
Axis 1 OT1								
Reinforce research, technological development and innovation								
Investment priorities: 1b. "Promote investments in business enterprises in R&I and in the higher education sector, develop relationships and synergies among businesses and establish centres of research and development."								
1.1b.2 Reinforce regional and national system of innovation and increase collaboration among businesses, research centres and their potentiality								
1.1b.2.4 Support the realization of complex projects of research and development on a few relevant topics and the application of technological solutions to the functional realisation of S3	R	R	----	----	----	----	----	R
Axis1 OT1								
Reinforce research, technological development and innovation								
Investment priorities: 1b. "Promote investments in business enterprises in R&I and in the higher education sector, develop relationships and synergies among businesses and establish centres of research and development."								
1.1b.4 Augment the increase of innovative effects in knowledge-intensive application perimeters								
1.1b.4.1 Support for the creation and consolidation of innovative start-ups of high knowledge-application intensity and endorse spin-off research in areas in the line with smart specialization strategies					----	----	----	----

Axis 2- OT3 Competitiveness of production systems – SME and the agricultural sector (for the EAFRD) and fisheries and aquaculture (for the EMFF)

Increase in production levels induced by production activities could determine an increase of environmental pressure on resources such as water, waste, etc. However, the positive effects linked to innovation may offset these potential effects. Therefore, it is possible to expect indirect positive effects (with different degrees of connotation) on the principle environmental components in so far as the best standard of innovation is concerned, which often corresponds to better standards of performance in terms of energy efficiency and the use of raw materials.

	Dynamic Changes	Air	Ground	Water	Biodiversity	Landscape and Cultural Heritage	Population and Health
Axis 2 OT3							
Promote SME competitiveness							
Investment priorities 3a. “Promote entrepreneurship by facilitating the economic exploitation of new ideas and promote the creation and nurturing of new businesses”							
2.3a.5 Birth and consolidation of business enterprises							
2.3a.5.1 Intervention through the support of new businesses through direct incentives, providing services and micro-finance interventions	L	L	L	L	---	---	---
Axis 2 OT3							
Promote SME competitiveness							
Investment priority: 3 b. “Develop and implement new business models for SMEs, in particular for their internationalisation”							
2.3b.2 Develop employment and production in areas affected by widespread production crises							
2.3b.2.1 Interventions of support in areas affected by widespread production activities, aimed at mitigating the effects of industrial transitions of individuals and businesses.	L	L	L	L	---	L	---
Axis 2 OT3							
Promote SME competitiveness							
Investment priorities 3d. “Support the creation and expansion of advanced capabilities for the development of products and services”							
2.3d.6 Improvement of credit access for the financing of businesses and risk management in agriculture							
2.3d.6.1 Optimize the government system of guarantee for the expansion of credit in synergy between the national and regional systems of guarantee, favouring forms of rationalization that emphasize an efficient and effective role of trusts	---	---	---	---	---	---	---
Axis 2 OT3							

Promote SME competitiveness							
Investment Priority 3d. “Sustain the creation and implementation of the advanced capacity for the development of products and services”							
2.3d.1 Re-launch the propensity of investing in the system of production							
2.3c.3.4 Support competitiveness of businesses in tourist destinations through the intervention in the adequacy and innovation of products and services as well as in business strategies and organization	L,R	L,R		L,R		L,R	
2.3d.1.1 Assistance for the investments in machinery, equipment and intangible assets; guidance in the reorganizational and restructuring process of the enterprise	R	R	----	R	----	----	----

Axis 3- OT4 Support the transition towards low-carbon emissions in all sectors

The promotion of energy efficiency and sound energy management of public and private buildings that respond to the need to define actions that is consistent with the principle of energy efficiency and the attainment of energy saving objectives by 2020. The Axis 3-OT4 has the potential to determine important positive environmental effects, favouring sustainable energy and sound management; the best use is the correct management of local and renewable resources with positive results on the improvement of the environment’s quality and control of air pollution.

	Dynamic Changes	Air	Soil	Water	Biodiversity	Landscape and Cultural Heritage	Population and Health
Axis III OT4 Sustainable energy and the quality of life							
Investment Priorities 4c. “Sustain energy efficiency, sound energy management and the use of renewable energy in public infrastructure including public buildings and the housing sector.”							
III.4c.1 Reduction of energy consumption in public and privately owned buildings, residential and non-residential and the integration of renewable sources.							
III.4c.1.1 Promotion of eco-efficiency and the reduction of primary energy consumption in buildings and public facilities: restructuring intervention on buildings or group of buildings, installation of smart remote monitoring, regulation, management, monitoring and optimization of energy consumption (smart buildings) and pollutant emissions through the use of a mix of technologies	R	R	----	----	----	----	

Axis IV Urban Development

In the area of urban development, more investment and complementary priorities concur in relation to different thematic objectives: redevelopment of urban areas, promotion of excellence and local distinctiveness through interventions in public housing, and in particular, the construction of

buildings of cultural, historical, artistic and architectural importance, and promotion of energy efficiency, energy savings and sustainable mobility to reduce congestion in urban areas.

	Dynamic Changes	Air	Soil	Water	Biodiversity	Landscape and Cultural Heritage	Population and Health
Axis IV Urban development							
For this axis, more than one complementary investment priority concurs in relation to different thematic objections aimed at securing maximum contribution in terms of product effects on the regional level.							
Increase in the quality of urban living according to the paradigm of smart cities							
Promotion of integrated projects for sustainable urban development: requalification of urban areas, promotion of excellence and local distinctiveness to be implemented through the development of an ICT infrastructure for the provision of services in PA and users of the city, the promotion of energy saving and renewable energy through sustainable mobility aimed at reducing congestion in urban areas.	R	R	L	L	---	---	L,R

7.2 Considerations on cross-border issues

None of the actions taken by ROP was able to determine any visible direct impact or physical interference on the environment of neighbouring states, considering the particular geomorphology of the border.

The eventual interventions of Axis 1 OT1 and Axis 2OT3 could possibly affect the neighbouring states.

In this regard, Friuli Venezia Giulia is characterized by cross-border boundaries primarily mountainous and burdened by multiple landscape and environmental restrictions (NATURA 2000, hydro geological and landscape constraints, forest act, a number of national and regional protected areas) that ensure a high regimen of territorial and environmental tutelage and it is therefore unlikely that these areas may accommodate productive settlements or be affected by interventions that may determine stress of some significance.

In these areas, it is likely that if a programme intervenes, it will essentially focus on the tourism sector. At the outset, it will not be possible to exclude the fact that interventions undertaken may have repercussions on the local and regional tourism through the promotion of networks of guided tours that connect different tourist destinations with attractions potentially linked to the historical-cultural heritage and ecological network or innovative applications of R&D that may interest specific cross-border productive areas (with expected positive effects although not yet evaluated by the programme).

With reference to the area of Gorizia, which interests a minimal part of the Slovenian border, as highlighted by the Environmental Report of the Rural Development Plan, the production propensity,

essentially from the primary sector point of view, is characterized by specialized high quality agriculture suitably integrated in the landscape of the territory, so much so that existing authoritative studies acknowledge some of these areas as potentially of *high nature value*⁷.

However, as illustrated in the chapter, “Evaluation of Environmental Impact” in the planning phase, to strictly comply with the specific management tools, in case the intervention falls inside or near the Natura 2000 site, guidance proposals are provided to help strengthen the tutelage of the area. Conservation of its biodiversity could then be evaluated.

Nevertheless, although there are no explicit actions able to determine physical interference on the environment of neighbouring states, it is to be considered that research financing (Axis 1) and the competitiveness of the economic productive system (Axis 3) and in particular actions 1.2.4 and 3.1.1, can determine positive effects of various kinds, which at the moment cannot be evaluated in the short or long haul, in terms of relationships and intangible connections between neighbours.

In fact it is advantageous that in the *green-and clean economy* perspective, the above mentioned actions could promote new industrial processes with less energetic intensity and major tutelage of natural resources which in turn, could bring environmental benefits in the mid to long terms in a scale more vast than regional or neighbouring territories, or may be promoted, diffused and applied in other territories outside the region.

7.3 Evaluation of the Environmental Impact

Evaluation of the impact is a tool used to guarantee, from the procedural and substantial point of view, the attainment of a balanced relationship between a satisfactory conservation of the habitat and species, and the sustainable use of the territory.

The programme being examined should therefore be evaluated in advance in case there are negative impacts that may jeopardize the conservation objectives of the site belonging to the Natura 2000 network recognized in the region. The interference between the programme and site belonging to the Natura 2000 network SIC and/or ZPS may be considered as physical interference or as a functional and ecological relation. In this sense, the impact evaluation is applied to interventions within the Natura 2000 areas (or in other proposed sites), and to those areas being developed outside Natura 2000, which may have repercussions on the state of conservation under the tutelage of the site.

In cases of direct/indirect impact/interference with specific sites of the Natura 2000 network, the study must highlight and evaluate other alternatives or the mitigation and compensation measures.

The Evaluation of the Environmental Impact applied to the OP RIVER

The degree of specification of the actions, which interests the entire regional territory, on precise impacts/interferences of specific sites of the Natura 2000 network cannot yet be located or identified at the moment. The actual programme as defined today, does not include actions on infrastructure and may highlight the effect on SN2000 in the actions:

⁷ “The Preval agri-environmental system . A potential HNVP?” - Braut, 2010-2011 and Braut 2010-2011 the area of Preval has the necessary characteristics to be defined as an agricultural area of high natural value.

- Contributions to investments of touristic enterprises for the requalification of the offer and innovation of products and services (Axis 2– thematic Objective 3 Promote competitiveness of the SME)

In the planning of actions, besides reminders of the obligation to respect the provisions of the specific management tools, should the intervention fall within or close to a Natura 2000 site, orientation proposals will be considered to contribute to the strengthening of the action of biodiversity conservation to be adopted in the implementation phase of the programme, such as:

- Promotion and diffusion of information and forming of competences for the implementation of touristic development initiatives that pay attention to biodiversity;
- Productive settlements and infrastructures with limited environmental impact, in terms of pollution and aesthetic quality (limit soil consumption for new buildings or infrastructure, maintaining a good quality of the landscape and conserving the typical features of sites, maintaining an adequate distance from prestigious cultivations);
- Upgrade of collective transport services;
- Upholding local traditions;
- Incentivise the management of locations and structures that are compatible with the environment by adopting Environmental Management Systems (EMAS, iso14001) and promoting the diffusion and use of ecological quality brands (Ecolabel, National quality trademarks, brands promoted by protected areas) through awareness campaigns and training of tour operators;
- Promotion of the quality trademarks and production activities involved in the management of protected areas.

8. Orientation for the integration of the environmental component in the implementation phase

During the Programme scoping phase, the Friuli Venezia Giulia Region undertook consultations with the managers identified by the single Regional Actuating Organizations and the Environmental Authority on themes of sustainable environment and green economy so as to identify the possible areas for the integration of environmental components. Should the information not be directly evident but offer empowerment opportunities in the scope of activities proposed by each Regional Implementation Structure in the specific field, all the main environmental critical factors of the FVG Region will be considered.

The possible integration modes of the environmental component will entail:

- The allocation of resources to activities and projects that maximise the positive impact on the sustainable environmental objectives;
- The implementation conditions and annotations to be actuated to reduce the negative impacts (especially with regard to the implementation phase and completion of the

interventions); the criteria for awarding and selecting interventions that bring about positive impacts or are able to reduce the pressure on environmental components;

- The possible measures to raise awareness, diffusion and communications that can uphold the environmental aspects of sustainable interventions.

Among these, formulation of the criteria for awarding and selecting the operations offer an extensive opportunity to support the important integration of the principle of environmental sustainability, and strengthen the positive effects of actions already present or mitigate the possible negative effects. Many actions of the POR already in this Programme definition phase presented the possible criteria for the selection/awards of environmental importance such as the “Capacity of the projects to contribute to environmental sustainability” (Axis 1) and “Capacity of the interventions to determine a reduced impact on the environment.”

For each specific objective of the Programme, direct or indirect interactions were thus evidenced, and deemed to be important among the various actions and environmental components, with the possible preferential modes for their integration (if relevant) in relation to the single specific objective of sustainability. With the definition of the possible criteria for admissibility (RA) and/or award for merit (RM) that may be adopted in order to orient the interventions, upon implementation, towards the maximum potential of positive effects and (incentivizing) the consideration of the environmental theme.

Table 7 – Orientation for integration of the principle of environmental sustainability

Specific objectives ROP	Interactions ADP actions with the environmental theme	Specific actions proposed in POR FESR FVG	Environmental Potential of actions referred to objectives of sustainability (environmental themes indicated)	Proposal to integrate environmental themes in the selection criteria of projects
1.2 Strengthen the national and regional innovative system by increasing cooperation between enterprises and research organisations and their empowerment	The actions promoted (Az. I.1a.2.4 present positive interactions with the direct environmental elements	Action 1.2: Complex projects of research and development activities and strengthening of innovative regional systems.	Use of resources and Green and clean economy	CrM: Research and innovation projects for the introduction of processes and products in the environmental field.
	The actions promoted present indirect or non-quantifiable indirect actions to be deepened with the environmental components			
1.1 Increase the activities of enterprise innovation	The actions promoted (Az . I.1b.1.3, . I.1b.1.4, I.1b.1.5) present positive direct interactions with the environmental components	Action 1.1: Support research, development and innovation and industrialisation in the sectors of industry, handicraft, commerce and tertiary sectors.	Use of resources and Green and clean economy	CrM Research and innovation projects for the introduction of innovation of processes and products in the environmental field.
	The actions promoted present indirect positive interactions with the environmental components			
1.4 Increase the incidence of innovative specialisations in high knowledge intensity application perimeters	The actions promoted (Az. I.1b.4.1 present direct positive interactions not quantifiable and are to be deepened with the environmental components	Action 1.3: Support the start up of innovative spin offs	Use of resources and Green and clean economy	–

Specific objectives ROP	Interactions ADP actions with the environmental theme	Specific actions proposed in POR FESR FVG	Environmental Potential of actions referred to objectives of sustainability (environmental themes indicated)	Proposal to integrate environmental themes in the selection criteria of projects
°3.5 Creation Consolidation of Micro, Small and Medium Enterprises (SME)	The actions promoted (Az. II.3a.5.1) present positive indirect interactions with the environmental components	Action 2.1: Attention to the start-up and strengthening of cultural and creative enterprises Action 2.2: Incentives for grants in favour of Micro and SME constitute in the field of devices and POR FSE	Climate, Air, Water, Energy, Use of resources and Green and clean economy	CrM: Interventions focused on the introduction of eco-innovation of processes and products to limit the environmental pressures (water and energy, reduced emissions into the atmosphere, reduced waste production, use of raw, second materials etc.)
3.2 Occupational and productive development in territorial areas struck by the diffused crisis of production activities	The actions promoted (Az II.3b.2..1,) present positive/negative indirect interactions with the environmental components	Action 2.3: Interventions that support the areas struck by the diffused crisis of production activities	Use of resources and Green and clean economy, climate, air, landscape and cultural heritage	CrM: : Interventions focused on the introduction of eco-innovation of processes and products to limit the environmental pressures (water and Energy, reduced emissions into the atmosphere, reduced waste production, use of raw, second materials etc.)
3.1 re-launch of the propensity for investments of the productive system	The actions promoted (Az. II.3c.1.1) present positive/negative indirect interactions with the environmental components	Action 2.4: Aids given to investments for the competitive re-launch of the SME Action 2.5: Aids to investments of touristic enterprises for the qualification of the offer and innovation of products and services Action 2.6: Aids to ICT investment in favour of the SME	Use of resources and Green and clean economy, climate , air	CrM: Interventions focused on the introduction of eco-innovation of processes and products to limit the environmental pressures (water and Energy, reduced emissions into the atmosphere, reduced waste production, use of raw, second materials etc.)
3.6 Improve access to credit, financing of enterprise and risk management agriculture	The actions promoted (AZ. II.3d.6.1, II.3d.6.2) present positive/negative direct interactions with the environmental components positive indirect actions with the environmental components	Action 2.7: Guarantee fund for access to credit	Use of resources and Green and clean economy	–

Specific objectives ROP	Interactions ADP actions with the environmental theme	Specific actions proposed in POR FESR FVG	Environmental Potential of actions referred to objectives of sustainability (environmental themes indicated)	Proposal to integrate environmental themes in the selection criteria of projects
	quantifiable /to be deepened with the environmental components			
4.1 Reduced energy consumption in public buildings and structures or use by public, residential and non-residential and integration of renewable sources	The actions promoted (Az. IV.4c.1.1) – presented positive direct interactions with the environmental components	Action 3.1: Energy upgrading in public buildings and structures	Climate, air, energy, use of resources and Green and clean economy,	CrM: Technical characteristics of the plants CrM Energy benefits connected to the initiative
Urban development	The actions promoted presented positive direct interactions with the environmental components	Action 4.1 Promoting integrated projects of sustainable urban development	Climate, air, energy, Use of resources and Green and clean economy, Quality of life, landscape and cultural heritage	CrM : Interventions aimed at sustainable mobility aimed at decongesting the urban areas. CrM : Interventions for the recovery of existing public building assets especially those with cultural, historical, artistic and architectonic prestige CrM :Degree of attention to the use of technologies/systems aimed at energy savings

9. Environmental Monitoring Plan

The Environmental Monitoring Plan (EMP) is an integral part of the environmental report.

Directive 2001/42/EC obliges the Member States to monitor the important environmental effects (positive, adverse, direct or indirect) arising from the implementation of the plans and programmes, in order to identify the important environmental effects caused by the implementation of the Programme and be able to pursue the preset sustainability objections, with the identification of possible unforeseen environmental effects.

The reference frame for the construction of the monitoring system starts from the environmental sustainability objectives. Each of the sustainable objectives was associated to a context indicator, equipped with **SMART methodology**⁸ characteristics, selected from those identified in the RA and already monitored on regional territory by the various Agencies in charge of the control and protection of the state of the environment.

The progress or state of the programme implementation is monitored through *process indicators* that, in this specific case, are based on *implementation indicators of the ROP FESR 2014-2020*. This choice is in line with the wish to integrate as much as possible, environmental monitoring with that of the programme, in view of optimising and simplifying the activities and ensuring greater conformity. The contribution of the actions chosen on the referral environmental context and the objectives of sustainability, was thus examined through *contribution indicators*, elaborated starting from the process indicators, and the related progress compared to the implementation of the sustainability objectives.

The role of the contribution indicators is to record and assess the entity of the impacts induced by the objectives of the programme correlated to the general sustainability objectives, and acts as a “bridge” between the process indicators and the context indicators.

Process Indicators	Give an ideas of the degree of implementation of the programme’s actions, and in this specific case are based on the implementation indicators of the POR FESR 2014-2020 for those actions on which they chose to focus monitoring
Contribution indicators	Give indications of the contribution of the plan to changing the context and are developed starting from the process indicators
- Background indicators	following the evolution of the environmental context

L. Decree 152/2006 and RGD 116/2014 establish the person in charge of SEA monitoring as the Planning Authority, in collaboration with the Actuating Authority and the Environmental Authority.

Environmental monitoring of the indicators of proposed contributions, which may possibly be modified/integrated in the succeeding Programme implementation phases, will in the meantime be

⁸SMART: specifics, measurable, implementable, realistic and temporally defined

integrated into the Programme's monitoring system and managed with the cooperation of the environmental Authority.

The following is a preliminary proposal of the possible indicators for the environmental monitoring of the OP and the reference to background indicators, associated to the reference environmental sustainability objectives of the ROP, the actions of which may contribute in a more direct or indirect manner.

Table 8 – Possible indicators for environmental monitoring of the PO

Specific Objectives	Actions	Process Indicators	Environmental component/environmental sustainability objective	Contribution Indicator	Background indicators
:ASSE I	1.2 Strengthening of the national and regional innovation system of cooperation between enterprises and research structures and their empowerment	<p>Number of enterprises cooperating with research institutes</p> <p>Number of researchers operating in improved research infrastructures</p>	<i>Green and clean economy</i>	Research and innovation projects for the introduction of process and product innovation in the environmental field (number)	Background Indicator to select in the advanced phase in relation to the specificity of the actions
	1.1. Increase the innovation activities of enterprises and industrialization	<p>Number of enterprises sustained to introduce new products that constitute a novelty for the enterprise</p> <p>Private Investments combined with public support in R&D or innovation projects (Euro)</p>	<i>Green and clean economy</i>	Enterprises that introduce innovations to improve environmental performance (number)	<p>Background Indicator to select in the advanced phase related to the specificity of the actions</p> <p>Diminished intensity of electricity in industries</p>
	<p>Action : Support the R&S collaboration activities for new sustainable technologies, products and services (Az. 1.1.4 AP)</p>	<p>Number of enterprises cooperating with research institutes</p>	<i>Green and clean economy</i>	Research and innovation projects for the introduction of process and product innovation in the environmental field (number)	Background indicator to be selected in the advanced phase in relation to specificity of actions

		Action: Support the technological advancement of the enterprises through the financing of pilot lines and early validations of products and demonstrations on a large scale (Az. 1.1.5 AP)	Number of enterprises supported to introduce new products that constitute a novelty for the business	<i>Green and clean economy</i>	Enterprises that introduce innovations to improve environmental performance (number)	- Background indicator to be chosen during the advanced phase in relation to specificity of actions - Reduced intensity of electricity in industries
	1.4 Raise the incidence of innovative specializations in high intensity know-how application perimeters	Action : Support the creation and consolidation of innovative start-ups with high intensity know-how and spin-off research initiatives in line with smart specialization (Az. 1.4.1 AP)	Number of enterprises supported to introduce new products that constitute a novelty for the market Number of enterprises that receive financial support other than subsidies	<i>Green and clean economy</i>	Enterprises that introduce innovations of smart (number)	- Background indicator to be chosen during the advanced phase in relation to specificity of actions - Reduced intensity of electricity in industries
Axis II	3.5 Creation and Consolidation of the	Action : Interventions to support the birth of new enterprises through the offer of	Number of enterprises that receive support Number of new enterprises that receive support	<i>Green and clean economy</i>	Enterprises that introduce innovations to improve	- Background indicator to be chosen during

Axis III	<p>3.2 Occupational and production development in areas struck by the diffused crisis in production activities</p>	<p>Action: Interventions to support the territorial areas struck by the diffused crisis in the production sectors, aimed at mitigating the effects of industrial transitions on individuals and businesses (Az. 3.2.1 AP)</p>	<p>Number of enterprises that receive support i</p>	<p><i>Green and clean economy</i></p>	<p>Enterprises that introduce innovations to improve environmental performance (number</p>	<p>Context indicators to select during the advanced implementation phase related to specificity of interventions</p>
	<p>3.1 Re-launch the propensity towards production system investments</p>	<p>Action: Subsidies for investments in machinery, plants and intangible goods, and support of corporate reorganization and renovation processes (Az. 3.1.1 AP):</p>	<p>Number of enterprises that are subsidized</p> <p>Private investments combined with public subsidies for enterprises</p>	<p><i>Green and clean economy</i> Climate change</p> <p>Water</p> <p>Energy</p> <p>Wastes</p> <p>Landscape and cultural heritage</p>	<p>Enterprise that introduce innovations to improve environmental performance (water efficiency, energy efficiency, waste production (number)</p> <p>Project in the sector of sustainable tourism to improve environmental performance (number)</p> <p>Number of projects for the qualification of the financed touristic offer</p>	<p>Total greenhouse gas emissions</p> <p>Total capture of water</p> <p>Total energy consumption</p> <p>Annual production of special wastes</p> <p>Hotel structures</p>
	<p>3.6 Improvements in access to credit, financing of businesses and consumption in public buildings and structures, residential and non-residential buildings and integration of renewable sources.</p>	<p>Action : Empowering the system of public guarantees for the expansion of credit in</p> <p>Action: Promotion of eco-efficient and reduction of primary energy efficiency consumption in public buildings and structures: restructuring interventions of single buildings or building complexes, installation of smart systems for telecontrol, regulation, management, monitoring and</p>	<p>Number of buildings financed, among which the number of buildings financed with improvement of Energy class</p>	<p>Climate factors</p>	<p>Projects to improve Energy efficiency (number)</p> <p>Annual estimate of the decrease of green house gas (TeqCO2/year)</p>	<p>Total emissions of greenhouse gas</p>

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				Energy	Projects to improve Energy efficiency (number) Decrease in annual consumption of primary energy (kWh/year)	Energy consumption per head
Axis IV	Urban Development	Action : Promotion of projects integrated with sustainable urban development: requalification of urban areas and upholding excellence and local features, to be implemented through the development of ICT for the furnishing of services to the PA and users of the cities, promotion of Energy savings and the use of renewable energies and also through sustainable mobility, aimed at decongesting the urban areas.	Public commercial buildings restructured (sq. m)	Energy Climate factors	Projects to improve Energy efficiency (number)	Energy consumption per head Total emissions of greenhouse gas
				Soil	Restructured building surfaces (surfaces)	Soil consumption
				cultural heritage Landscape	Projects for requalification of buildings that are part of the historical cultural	Architectonic environmental assets, urban planning environments, historic centres and archaeological heritage
			Open spaces created or restored	Air	Sustainable mobility projects (number)	Emissions of PM10, NO2, O3, CO

				Environment and Urban areas	spaces created or restored (surfaces)	Green urban density (surfaces)
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