

ENEA Working Group

on

Climate Change and Cohesion Policy

Improving climate resilience of the Cohesion Policy's funding programmes

**An overview of member state's measures and tools for climate proofing the Cohesion
Policy Funds**

DRAFT REPORT FOR CONSULTATION WITH ENEA

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EXECUTIVE SUMMARY

European Cohesion Policy Funds represent hugely significant investment¹ in Europe's knowledge and physical infrastructure helping to deliver a converging and competitive economy aiming to improve the prosperity of Europe's citizens.

This report looks at the role of current Cohesion Policy and its role supporting climate proof investments and programmes. Consequently, it intends to encourage the integration of climate change aspects into the structural and cohesion funds in order to reduce the carbon intensity of the programmes. In addition, the paper aims to:

- facilitate information sharing and know-how transfer across the member states;
- summarise the best available knowledge as regards tools and measures used in Member States to incorporate climate change mitigation and adaptation in Cohesion Policy funding programmes on all levels; and
- study innovative approaches to addressing climate change in regional policy documents, both in the sections dedicated to the environment in the operational programmes (OPs) but, even more importantly, it makes an inventory of techniques for strengthening environmental and climate change considerations into all investments, not only environmental ones.

The report does not cover other important fields of the EU funding programmes as the social or the agricultural funds. Nevertheless a lot of the findings and recommendations of this report could be used also in these funding schemes.

Significant knowledge and experience on how to include the climate change aspects into CP spending programmes is available in the EU Member States (MS). Although, good examples are available in many MS, they usually concern only certain aspects of the project cycle.

The document aims to support decision makers, environment-related and other managing authorities (MA) in the EU Member States on how to improve their performance as regards to environmental issues in general and CC issues in particular on all levels of the programmes through:

- taking climate resilient decisions throughout the whole project cycle in order to "climate-proof" the spending of the structural and cohesion funds.
- finding opportunities for amending current programming documents, in order to increase actions for financing CC mitigation or adaptation measures financed by EU funds.
- influencing the coming programming period 2014-2020 in the direction of climate-proofing MS operational programmes in general as well as individually funded actions.

The document follows the phases of programme realization including strategic planning and programming to the project cycle and ex-post evaluation.

¹ 347 billion euros in the 2007-2013

As a first step the report analyzes how climate change issues are dealt with at programming level in the NSRF and provides examples of selected OPs that envisage direct measures for stimulating climate change positive investments.

Consideration of climate change related objectives and indicators within the programme content sets the basis for implementation of such measures throughout programme development and implementation. Furthermore, linking National Strategic Reference Framework (NSRF) objectives with other national strategies, such as e.g. the national climate change strategy, can increase consistency and coherence of the efforts.

It is of importance that the programming documents, i.e. NSRFs explicitly include climate change measures and map the potential of climate change measures for economic growth and job creation. As the economy is always higher on the political agenda, the description and definition of overlapping between climate change and economy might boost climate change integration into CP.

Chapter 3 focuses on integration of climate change aspects into the stages of the development of the projects financed by the Cohesion Policy and follows the project cycle starting with methods of project identification, design and preparation, assessment and scoring. Project monitoring is discussed in chapter 4.

At stage of call for proposals (call announcement) there is insufficient knowledge among the project applicants on the opportunities that climate change related projects offer. There is also a limited experience with the possible types of activities and outputs of such projects. Positive practice to address this gap is through organizing thematic calls for proposals and providing technical assistance to project applicants.

The authors believe that the two main ways in which OPs can improve the integration of the climate change considerations into project development and preparation are through the project application documents and through assistance and guidance to project applicants. In some countries positive steps can be observed in strengthening the environmental focus of the application forms including from climate perspective though the inclusion of questions related to emission reduction and energy consumption. Existing guidance documents on how to reflect environmental sustainability issues in the project proposal further serve as an instrument for improving the quality of the proposals also from climate perspective and enhancing the knowledge of the applicants.

Technical assistance to project proponents plays an important role in strengthening the knowledge of project proponents in integration of climate change considerations into the project proposal. Designating personnel providing support to the applicants (e.g. Environmental Sustainability Manager and assistance through climate coach) are positive examples of targeted support. Consultation with environmental authorities at the application phase is a good practice that is to be strongly encouraged. In some countries there is accumulated experience with environmental networks that maintain active dialogue with project applicants and assist with integration of environmental aspects into the project proposals.

Regarding the project appraisal process innovative institutional mechanisms (e.g. environmental panels) can be highlighted as examples of bringing expertise and knowledge in the assessment of the environmental aspects of the projects and contribute to strengthening the integration of

environmental issues as well as building capacity of the project applicants. Existing checklists and guides for assessment of environmental sustainability issues are a helpful tool for evaluating the impacts of the project on the environment. Climate change considerations are integrated in these checklists.

Chapter 4 discusses monitoring of individual projects and programmes in terms of their CO₂ impact. In a period when EC climate change policies are getting stronger it would be paramount to align all other policies including big spending policies like the Cohesion Policy with the climate change ones. This has also been stated in the White Paper on Adapting to Climate Change. Therefore, there will be increasing pressure to the EC and the countries to fund projects that do not contribute to GHG emissions on an individual level or at least on an aggregated programme and/or regional level.

The EU does not put enough pressure on the Member States to use EU funds only or primarily for projects which are CO₂ neutral. In some Member States, e.g. France, the concept of carbon neutrality has been adopted where neutrality has to be reached on a programme level and/or regional level. NECATER is the most elaborated software tool in EU for estimating the carbon impact of individual projects and programmes on a regional level. It is an instrument for carbon impact analysis mainly on an aggregated regional or national level.

Chapter 5 looks at climate change phenomenon as a potential for growth and highlights that strengthening the EU resilience to the impacts of climate change will offer opportunities to invest in a low-carbon economy to deliver sustainable growth, jobs and competitiveness. The vision of an environmentally-driven growth is central only for a few countries, e.g Sweden – where it has been recognised as a motor for regional economic development. It is subsequently reflected throughout the OPs. The chapter also presents projects funded by the Structural Funds having an innovative element. Projects have been divided into:

- Mitigation projects;
- Adaptation projects;
- Making the economic case of investments into low-carbon economy. Clusters for environmental technologies.
- Examples of how 'conventional economic projects' and/or projects that have no vertical environmental outcomes have been adapted or changed to reduce their carbon/environmental intensity
- Examples of skills/education based projects that have a carbon literacy development.

Based on the literature review, findings of the research and discussions within the ENEA Working Group the authors have come up with a set of conclusions and recommendations for the future which are presented in Chapter 6. Recommendations follow the logic of the report; possible timeline of implementing the given recommendation as well as the main actor in charge of that are included.

ACRONYMS AND ABBREVIATIONS

3CAP	Cornwall Climate Change Action Plan
ADEME	French Environment and Energy Agency, Agence de l'Environnement et de la Maîtrise de l'Energie
BREEAM	Environmental Assessment Method for Buildings Around The World
CC	Climate Change
CCD	Commission on Climate Change and Development
CEE	Central and Eastern Europe
CP	Cohesion Policy
CPER	Contract de Projets Etat Region, Projects Contracts State Region in France
CPV	Concentration of Solar Photovoltaic Energy
DG Env	European Commission - Directorate General Environment
DG Regio	European Commission - Directorate General Regional Policy
DIACT	Délégation inter-ministérielle à l'aménagement et à la compétitivité du territoire, Inter-ministerial delegation for regional planning and competitiveness in France
EA	Energy Agency
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EE	Energy Efficiency
EEA	European Environmental Agency
EEE	European Centre for Renewable Energy
EEOP	Environment and Energy Operational Program
EIA	Environmental Impact Assessment
ENEA	European Network of Environmental Authorities for the Cohesion Policy
EMAS	Eco-Management and Audit Scheme
EMS	Environmental Management System
ERDF	European Regional Development Fund
ES	Environmental Sustainability
ESF	European Social Fund
ESPON	European Observation Network for Territorial Development and Cohesion
ETAP	European Action Plan for Environmental Technology
ETS	Emissions Trading Scheme
EU	European Union
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GRDP	Greening Regional Development Programmes
IT	Information Technologies
ISFOC	Institute for Concentration of Photovoltaic Systems
ISO	International Organization for Standardization
LCA	Life Cycle Analysis
LOLF	Law on public finances, Loi organique relative aux lois de finances
MA	Managing Authority

MAE	Environmental Support Mission (France)
MS	Member States
NGO	Non-Governmental Organization
NMC	Northern Maritime Corridor
NMS	New Member States
NRP	National Reform Programme
NRW	Land of North Rhine Westphalia (Germany)
NSDS	National Sustainable Development Strategy
NSRF	National Strategic Reference Framework
OECD	Organization for Economic Co-operation and Development
OP	Operational Programme
OPE	Operational Programme Environment
ÖROK	Austrian Conference on Spatial Planning, Österreichische Raumordnungskonferenz
PR	Public Relations
RDA	Regional Development Agency
RDP	Regional Development Programme
RE	Renewable Energy
R&D	Research and Development
RES	Renewable Energy Sources
REC	Regional Environmental Center for Central and Eastern Europe
ROP	Regional Operational Programme
SD	Sustainable Development
SEA	Strategic Environmental Assessment
SEPA	Swedish Environmental Protection Agency
SF	Structural Fund
SME	Small and Medium Enterprise
STP	Science and Technology Park
TEN-T	Trans-European Transport Network
VROM	Netherlands Ministry of Housing, Physical Planning and the Environment
UK	United Kingdom
WG	Working Group

KEY DEFINITIONS

Climate change adaptation – adjustment of ecological, social and economic systems in response to the current or expected climate change and its effects in order to moderate or offset possible damages and exploit beneficial opportunities.

Carbon intensity – the amount of carbon by weight emitted per one unit of consumed energy or the ratio of carbon emission produced to GDP, expressed in terms of grams of carbon dioxide released per megajoule of energy.

Climate change mitigation – interventions to reduce greenhouse gases emissions and to enhance their sinks aimed at reduction of climate change effects and impacts.

Carbon positivity – refers to actions for reducing carbon emissions through increase of energy efficiency and carbon sequestration.

Climate proof – identifying risks to a development project as a consequence of climate variability and change, and ensuring that those risks are reduced to acceptable levels through long-lasting and environmentally sound, economically viable, and socially acceptable changes implemented at one or more of the following stages in the project cycle: planning, design, construction, operation, and decommissioning

Climate Change resilience – the ability of a social, ecological and economic systems to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organisation, and the capacity to adapt to stress and change. In climate change aspect it refers to the reduction of the energy and climate vulnerability of the regions and their economies.

Low Carbon Economy is a concept of economy defined as one that is 80% less carbon intensive than our present one and based on low energy consumption, low pollution and low emissions. The fundamental aim is to achieve high energy efficiency, to use clean/renewable energy and to pursue green GDP via technological innovation.

I. INTRODUCTION

1.1. Objectives of the document

This paper reflects on the challenges posed by climate change in the context of the EU Cohesion Policy (CP) as well as the offered opportunities. The document intends to encourage the integration of climate change aspects into the structural and cohesion funds in order to reduce the carbon intensity of the programmes, eventually leading to actual CO₂ emission reductions.

Significant knowledge and experience on how to include the climate change aspects into CP spending programmes is available in the EU Member States (MS). Although, good examples are available in many MS, they usually concern only certain aspects of the project cycle.

The paper aims to:

- facilitate information sharing and know-how transfer across the member states;
- summarise the best available knowledge as regards tools and measures used in Member States to incorporate climate change mitigation and adaptation in Cohesion Policy funding programmes on all levels; and
- studying innovative approaches to addressing climate change in regional policy documents, both in the sections dedicated to the environment in the operational programmes (OPs) but, even more importantly, it makes an inventory of techniques for strengthening environmental and climate change considerations into all investments, not only environmental ones.

The document has been being drafted with the intention to support decision makers and environment-related and other managing authorities (MA) in the EU Member States on how to improve their performance as regards to environmental issues in general and CC issues in particular on all levels of the programmes through:

- taking climate resilient decisions throughout the whole project cycle in order to “climate-proof” the spending of the structural and cohesion funds.
- finding opportunities for amending current programming documents, in order to increase actions for financing CC mitigation or adaptation measures financed by EU funds.
- influencing the coming programming period 2014-2020 in the direction of climate-proofing MS operational programmes in general as well as individually funded actions.

Based on the presented practices and on the reviewed policy documents the report attempts to make conclusions and recommendations on how to improve climate resilience of the cohesion policy’s spending programmes in the current period 2007-2013 and provides for an outlook and recommendations to the next programming period. The report targets mainly managing authorities of the MS but also all other interested parties such as regional decision makers, environmental authorities, NGOs and the European Commission.

This report assesses the current situation and its recommendations provide for an opportunity to improve the climate resilience of investments supported by the Cohesion Policy funds.

However, more efforts are necessary for MS to achieve actual emission reductions. The report will serve as a basis for future work in supporting MS and regions to lead the delivery of a truly low carbon economy. Milestones for future efforts are:

- Summer 2010: official proposal by DG Budget on the future perspective which will outline the priority spending areas;
- Autumn 2010: cohesion forum where MS can give their input to the future cohesion policy;
- Spring 2011: first draft of the legislative proposal.

1.2. Setting the scene/rationale

Climate change will lead to not only severe environmental impacts but also have a significant economic and social impact, with some regions and sectors likely to bear greater adverse affects. In order to adapt to the already inevitable effects of climate change and to mitigate further pressures there is a need to incorporate safeguard mechanisms in the EU policies including the Cohesion Policy. In 2007, the EU put forward the climate action and renewable energy package setting the target to reduce emissions with 20 % below 1990 levels including a 20 % share of renewable energy in the EU energy consumption by 2020 and increasing the energy efficiency by 20% (EC, 2008a).

The Cohesion Policy represents 35.7 % of the total EU budget for the period 2007-2013 and stands for the bulk of infrastructure projects being supported by the EU funds. These investments represent the risk of increasing climate change emissions. A coherent and streamlined approach on behalf of the Commission, linking the constraining climate change policy objectives on one hand and the developmental Cohesion Policy objectives on the other hand would require maximum efforts in the countries to carbon-proof projects. This would be particularly challenging in the New Member States, parts of Portugal, Spain and South Italy as they are all convergence regions². Infrastructure investments in these regions are normally more carbon intensive and therefore more difficult to neutralise.

The White Paper on Adapting to Climate Change adopted in April 2009 sets a framework for reducing the EU's vulnerability to the impacts of climate change. The white paper calls for integrating and mainstreaming adaptation into EU key policy areas, such as the Cohesion Policy. It is underlined that infrastructure projects that receive EU funds should take climate proofing into account based on methodologies to be developed and integrated into the EU Cohesion Policy. In addition, it suggests that indicators should be developed to better monitor the impact of climate change, including vulnerability, impacts and progress on adaptation (EC, 2009a). The White paper builds on the consultation launched in 2007 by the Green Paper on Adapting to Climate Change which called for an examination on how climate proofing can be implemented in plans and programmes under the Cohesion Policy. The communication stressed that the EU must adapt its governance structures to deal with adaptation in addition to including climate

² In EU-27, the convergence objective concerns regions with a per capita GDP at less than 75 % of the Community average. It includes 84 regions within 17 Member States with a total population of 154 million, and, on a “phasing-out” basis – another 16 regions with a total of 16.4 million inhabitants and a GDP only slightly above the threshold, due to the statistical effect of the larger EU. (DG region website consulted 2009-07-22)

change adaption in the spending programmes. Member states were urged to take opportunity of current operational programmes to include such measures (EC, 2007b).

Furthermore, climate change integration into EU Cohesion Policy was emphasised in the Fourth Cohesion Report (EC, 2007a) and in the Green Paper on Territorial Cohesion (2008), where the Commission suggests to examine how climate proofing can be reflected and made operational in the programmes and projects adopted under the Cohesion Fund, Regional Development Fund, pre-accession instruments, Trans-European Networks Programmes, and infrastructure measures under the Rural Development Fund (EC, 2008b).

In addition to the potential of emission reductions, the Cohesion Policy can support the creation of new market openings for local economies by enabling them to seize the opportunities created by the need to tackle climate change as new potential sources of growth. The development of measures for the mitigation and adaptation to climate change could be a powerful driving force towards a transition to a low carbon and low-input economy and finding new practical solutions and technological developments to address climate change issues. The climate change issues of both mitigation and adaptation should be an essential cornerstone of the European Action Plan for Environmental Technology (ETAP) (ETAP website, DG Env). Making buildings and infrastructure climate-proof as an adaptation measure could promote new innovations, in the same way that efficient power generation, energy use and transportation are driving forces for innovations, linked to climate change mitigation measures.

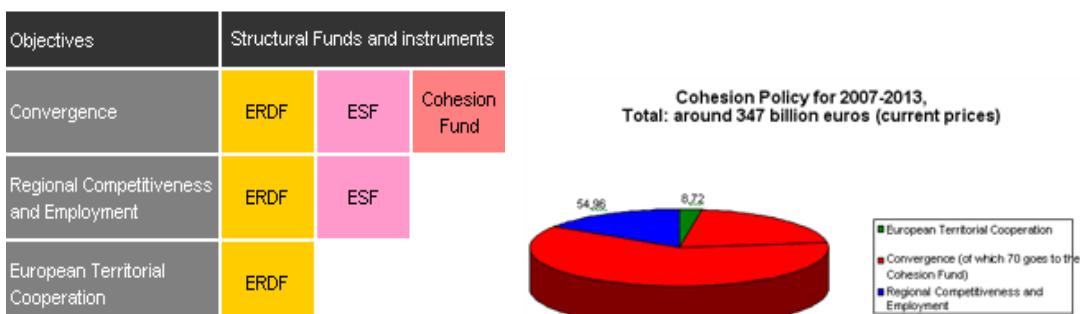
The urgency of the climate change issue has become clearer and more persistent only after the programming of the period 2007-2013 was completed. This was the case because the climate action and renewable energy package was put forward after the start of the programming period and because of the increasing understanding of the importance of adaptation. Nevertheless, several MS did address climate change mitigation and adaptation in their OPs for the 2007-2013 period, although to different extents. For instance, nearly half of the MS have integrated indicators for the reduction of greenhouse gas emissions into their Cohesion Policy programmes. One example is France that has developed a carbon evaluation tool to monitor CO₂ emissions produced by all projects funded through the central budget and with EU support (EC, 2009b). Although such approaches exist in some countries, they are often applied only to one part of the cycle and a holistic integration is missing. The acceleration of the climate change discourse implies that the opportunities for modifying the current programming documents towards further climate resilience and influence the future ones, to significantly increase the integration of climate change into the next programming period, post 2013.

1.3. Scope

This report discusses the relation between the Cohesion Policy and climate change, and aims at studying the integration of climate change mitigation and adaptation into CP financial instruments. Among the three objectives of the Cohesion Policy, priority is given to the Convergence and the Regional Competitiveness and Employment objectives although the European Territorial Cooperation objective will also be taken into account.

Objectives, Structural Funds and instruments

2007-2013



The role of the European Social Fund (ESF) and its support to skills development, education and increasing carbon literacy will not be widely elaborated in this report. However the recommendations provided can also be applied to the ESF. The authors would like to stress the importance of drawing together ESF and ERDF investments to ensure good economic and environmental linkages, i.e. through investing in Environmental Skills Network whilst increasing support for Environmental Goods and Service sector development.

In some Member States Regional Development Programmes (RDPs) are often closely linked with the cohesion or structural funds programmes and complementary to the SF investments, for instance through providing for co-financing. For example, in some regions in France, the CPERs³ (regional development programmes) go hand in hand with the structural funds programmes. In some regions (i.e. Nord-Pas de Calais) there is even a common subsidies application form. Accordingly, the connection between climate change and the RPDs will be taken into account in the report.

The guidelines provided in this report may equally apply to the agri-economic elements of Rural Development Programmes, such as the European Agricultural Fund for Rural Development (EAFRD). It is regrettable that these programmes do not recognise, in their regulations, environmental sustainability/SD and equalities in the same way that ESF/ERDF programmes do.

As the climate change discourse and aspects per se, especially climate change adaptation, are still not fully integrated into policy instruments and measures, this paper also deals with integration of 'environment' or 'sustainability' as such. The 'environment' or 'sustainability' aspects of a project often overlap with Climate Change actions, especially mitigation measures and it is a fact that the vast majority of investments are related to climate change mitigation measures. The authors do not disregard the 'environment' and 'sustainability' language (i.e. measures and considerations) and they believe that there are interesting practices and approaches that are associated with 'environment' and/or 'sustainability' now that can be easily adapted to CC. The authors would like to emphasise that carbon accounting and climate change are just one element of wider issues surrounding environmental sustainability (ES). The social

³ CPER – Contrat de Projets Etat Région – Projects Contracts State Region

dimension of environmental issues is also of major importance, i.e. the implication of fuel poverty, social exclusion and inclusive design.

As acknowledged by the Commission on Climate Change and Development, fighting poverty and fighting climate change are inseparable issues that have to be addressed together (CCD, 2009). Groups of society with fewer resources are the most vulnerable to the effects of climate change. The same segments of society are also groups exposed to raising levels of energy poverty in Europe. Energy poverty relates to the affordability of energy supplies and the proportion of household expenditure allocated to energy consumption. As a consequence of recent increase of energy prices, some households pay almost 30 % of their income for energy. A key element in reducing fuel poverty is to improve the level of household energy efficiency, particularly with respect to minimising heating demand (EEA, 2008).

1.4. Vision on the desired situation

Cohesion Policy funds delivery is presently helping to mitigate and adapt to the global challenges faced, but it can and should do more, to help and focus regions to lead in the delivery of a truly low carbon economy and provide leadership across the world. Along with this leadership come huge economic opportunities for regions across Europe in exploiting new market opportunities and the development of new goods and services. Only through adapting our current economy to a low carbon one, and through using Cohesion Policy funds to help deliver this, will regions, Member States and Europe as a whole deliver long-term economic sustainability and global competitiveness.

The speed of this economic transformation can be facilitated through a more ‘carbon centric’ Cohesion Policy, (including mechanisms and governance of delivery), that identifies that CP funds delivery can only take place within the context of delivering **actual** regional and Member State carbon reductions over **relative** reductions of carbon intensity of ‘business as usual’ delivery scenarios.

A step towards achieving this direction of the Cohesion policy is the development of a common package of environmental outcome indicators that all programmes should use to report environmental sustainability delivery; enabling benchmarking and comparison between regions. Based on the existing good examples and practices carbon management and accounting tools can be developed and consolidated with the aim to help regions and Member States evaluate the carbon impact of an investment before it takes place or is contracted.

In the next programming period CP Funds delivery within the context of a low carbon economy can be further emphasized through strengthened regulations requiring regions and Member States to report on how Structural Funds will contribute to **real** carbon reductions and to set legally binding carbon reduction targets for Operational Programme delivery.

1.5. Methodological considerations

The report has been based on research conducted by the Regional Environmental Center for Central and Eastern Europe (REC) and funded by the Netherlands Ministry of Housing, Physical Planning and the Environment (VROM). The document has been initiated by members of Working Group on Cohesion Policy and Climate Change within the European Network of Environmental Authorities for the Cohesion Policy (ENEA). The work has been guided by and carried out in the framework of the working group jointly chaired by the European Commission and the REC. The ENEA was set up in 2004 with the objective to contribute to the integration of environmental and sustainable development policies within the regional policy programmes of EU member countries. ENEA brings together experts from environmental administrations, international organizations and non-governmental organizations (NGO's) and is chaired by DG Environment.

An initial survey was made in the summer of 2008 among members of the working group in order to collect good practices in incorporating climate change and the environment as explained above. After some good models were identified the authors of the report conducted personal interviews with stakeholders in several EU Member States: Austria, Finland, France, Italy, Hungary, Slovakia and Sweden. Time and funds limitations did not allow more interviews in other countries.

Drafts of the report were prepared by REC members and periodically consulted with the WG and feedback was received by its members in their capacity of experts. The final draft of the report has been consulted with members of ENEA.

One of the added values of the research and accompanying report is the presentation of selected good practices from Member States. "Good practices" are positively selected case studies of an activity or system that is currently in use, and that gives a more positive environmental benefit, and has other positive effects, than the average solution or the customary practice within the field. This means that good examples are time-, context- and region dependent (as opposed to having an absolute quality of "goodness" or being the "best" example in every possible context). These "good" practices could be found on different system levels:

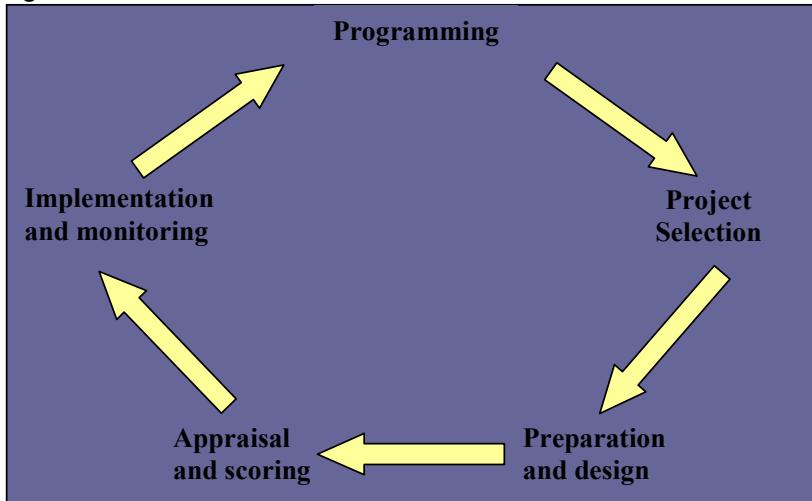
- General policy instruments e.g. taxes, regulations, subsidies
- Local policy instruments e.g. physical planning
- Tools and methods, e.g. LCA, EIA, EPD or EMS
- Technical, practical solutions which can be more or less localised, ranging from a "green city", to a green building or to a particular technology e.g. high-isolation windows or roof-top solar cells.

The good practices presented do not mean that similar or better practices do not exist in other Member States. They have not been identified because of limited time and resources. One of the authors' ambitions is to stimulate through this report further identification, systematization and exchange of other good practices in other Member States. In order to improve the readability of the report the authors have included some of the country examples in annexes but this does not mean that they are of less value than other examples.

1.6. Overview of the report

The report follows the phases of the classic project cycle including strategic planning and programming through project selection and project monitoring to ex-post project and programme evaluation. The key findings are provided in each chapter. The final chapter presents the recommendations. The key findings are summarized and elaborated in the end of the report together with the recommendations.

Figure 1:



Chapter 1 - Introduction - includes the objectives of the document and a presentation of the context and the rationale of developing the report. The chapter also includes the scope of the report and some methodological considerations.

Chapter 2 - Climate Change Integration in the Strategic Planning - covers the strategic planning phase including programming of the NSRF and the Operational Programmes. It gives examples on how climate change has been taken into account when formulating priority themes in the NSRF and how it is reflected in the priority axis in selected OPs. The chapter highlights the situation in new MS, convergence regions, and discusses the role of the indicative lists of projects, which consist of foreseen major investments in certain OPs.

Chapter 3 – Climate Proofing the Project Cycle - analyzes how climate change considerations are reflected in the phases of project cycle project identification, project preparation and design, project appraisal and scoring. Positive examples, approaches and practices are elaborated as well.

Chapter 4 – Project and Programme Monitoring and Evaluation - discusses available practices for monitoring of individual projects and programmes in terms of their CO2 impact.

Chapter 5 – Climate Change as an Economic Driver - attempts to briefly map the relation between climate change and economic growth. It includes selected examples of innovative projects supported by the structural and cohesion funds.

Chapter 6 – Conclusions and Recommendations - presents the key findings of the report and the recommendations. The conclusions and recommendations are split in terms of position in the project cycle and in terms of time horizon.

II. Climate Change integration in the Strategic Planning

The integration of environmental issues in the programming documents is key to compliance with the environmental sustainability needs established by European Treaties and Structural Funds Regulations. Appropriate consideration of relevant environmental issues including climate change related objectives and indicators within the programme content helps to set the basis for successful integration of those issues throughout programme development and implementation. For example recipients of funding can be required to meet targets for energy and resource efficiency, land use or green procurement (GRDP, 2006).

Certain development programmes and plans are subject to environmental assessment under the Strategic Environmental Assessment (SEA) Directive, as transposed into national legislation. SEA is a particularly useful tool for ensuring that environmental issues are integrated into programmes when used in an appropriate and efficient way.

2.1 Requirements for incorporating climate change as spelled out in the National Strategic Reference Frameworks and other planning documents

This subchapter presents how taking the climate change issues into consideration is dealt with at programming level in the National Strategic Reference Frameworks (NSRFs). It includes selected examples from OPs that envisage direct measures for stimulating climate change positive investments, mostly through energy related projects. The subchapter suggests ways for enhancing the importance of climate change issues in the current programming period through the revision of the OPs.

Analysis of the integration of the Lisbon and Göteborg priorities in regional policy instruments shows that the NSRFs for the EU countries reflect, to a high degree, the Lisbon agenda as structured in the National Reform Programmes (NRPs), but that the linkage between the NSRFs and the National Sustainable Development Strategies (NSDS) is less straightforward. However, climate change adaptation and mitigation and/or renewable energy are important exceptions: these issues are included in the NRP, NSDS and the NSRF of nearly all countries. It is concluded that the 2007-13 Regional Competitiveness and Employment programmes and Convergence programmes have significant potential to contribute to Lisbon and Gothenburg goals particularly in strengthening the synergies between environmental protection and growth and to a lesser extent in reducing Europe's dependence on traditional energy (Nordregio, 2009). Several examples of how climate change issues are reflected in the NSRFs are provided below:

2.1.1 Acknowledging the risks and meeting the challenge of climate change

Austria

The Austrian NSRF recognises the climate and energy challenges and includes it among its goals. It states that the main challenges in the environment and energy sectors should be used as a potential push for innovation and growth. The NSRF general objectives do not contain explicit reference to climate change; however the specific objectives and goals include energy and

climate issues. An example of the envisaged support is innovative and environment friendly transportation. The objectives are synergised with relevant national strategies and programmes.

The NSRF of Austria made reference to strategies on EU and national level, one of them the Austrian Sustainability Strategy. This led to the outcome that the sustainable development was a framework condition and is also reflected in the approved development strategies.

UK

The NSRF of the UK acknowledges that climate change poses a serious risk to long-term growth and prosperity. Environmental and Community Sustainability is an overarching theme that includes a special emphasis on the promotion of low carbon energy efficiency. The UK has committed to a target of reducing greenhouse gases by 12.5 percent below base year levels by 2008-12 and has set a domestic goal to reduce emissions of carbon dioxide by 20 per cent by 2010 and 60 per cent by 2050, below 1990 levels. The business sector contributes the most to UK emissions. It is therefore, according to the NRSF, essential that business adapts to these new conditions.

Box 1: Examples of thematic priorities in the NSRF reflecting CC

France

- Protect the environment, prevent risks, and adapt the energy practices in a sustainable development perspective;
- Develop transport modes different from the road for the individuals and the companies;

Sweden

- The priority "Entrepreneurship" acknowledges the potential of developing production and using renewable energy and changing to sustainable consumption and production patterns.

UK

- Environmental and Community Sustainability is an overarching theme in the NSRF including a special emphasis on the promotion of low carbon energy efficiency.

Austria

- The NSRF general objectives do not contain explicit reference to climate change; sub priorities under the thematic priority Regional Competitiveness and Innovation, focuses on innovation in eco-technologies and energy technologies. Within the priority "Attractive Regions and Competitive Business Locations", an important role is given to protection and sustainable use of natural resources and prevention of risks and natural hazards (including those caused by climate change).

France

The French NSRF spells out the need to promote a competitive and sustainable economy. It outlines the need to support the environmental innovations, to promote the renewable energy sources and to improve the management of natural resources. In France, the national goal is to reduce the GHG emission by a factor of 4 by 2050.

The NSRF states that "following the necessity to optimise funds and to contribute to reaching of the objectives of the Lisbon and Gothenburg Strategies, the partners have to fix in their Operational Programmes criteria and common objectives for the selection of projects". This is in

addition to the fact that projects funded from the Structural Funds have to fit in a sustainable development perspective considering the National Sustainable Development Strategy (NSDS). This is elaborated in [Annex 1](#).

In some MS, Regional Development Programmes are closely linked with the structural funds programmes, for instance through providing for co-financing to the SF investments. There is an added value in adopting common governance of the state funds and the EC funds mostly through ensuring complementary actions. Including links to other national strategies, such as e.g. the national climate change strategy, can ensure consistency and coherence of the efforts of a member state. Examples are given in **Box 2** below:

Box 2: Maintaining links to other national documents

France: Funded projects from the SF have to comply with the sustainable development perspective in the NSDS. Regions having suitable strategic instruments and complying with the reference framework (i.e. Agenda 21, National Parks Charts, Climate Plans, etc.) will have priority access to funds.

UK: Programmes should support the objectives of the UK Climate Change Programme which underlines that the need for carbon reduction to go hand in hand with increased competitiveness and economic growth.

Austria: The specific objectives and goals include energy and climate issues, which are synergised with the more precise provisions from national strategies and programmes.

2.1.2 Applying Horizontal priorities

Hungary

According to the Hungarian Development Strategy, two general aspects should be focused on when implementing the developmental objectives. Sector and regional programmes must be transcended by the principle of environmental, macro-economic and social sustainability; and securing regional and social cohesion. These horizontal policies have to be taken into consideration while concentrating on the above two aspects in the planning, implementation, monitoring and evaluation of the Operational Programmes and interventions. The concrete targets defined in the National CC Strategy are as follows:

- Reduction of GHG emissions by 6% by 2012;
- in case of EU's unilateral emission reduction undertaking by 20%: reduction by 16-25% compared to the emission level of 1990 in Hungary;
- in case of a presumed emission reduction goal of 30% by EU: reduction by 27-34% compared to the emission level of 1990 in Hungary;
- reduction of GHG emission by 60-80% by 2050.

Slovakia

In the Slovakian NSRF, sustainable development is considered as a horizontal priority which should be applied to all OPs. Although the need for climate change mitigation and adaptation is

generally not emphasized specifically within this priority and EU funded projects are not required to take into consideration climate resilience during the project cycle, there are several measures that intend to support this objective, i.e. energy efficiency measures are identified in several OPs.

If the NSRF, through the OPs, shall have the possibility to really deliver sustainable development it is important that do more than describe sustainable development as an objective or advocate adherence to certain principles. Actions, or intentions for action, are necessary to implement a sustainable development strategy (Nordregio, 2009). Important in this respect is to have good indicators on the horizontal level, to follow up the intended actions (see more on indicators in [Chapter 4](#))

Key points:

- Consideration of climate change related objectives and indicators within the programme content set the basis for implementation of such measures throughout programme development and implementation.
- Linking NRSF objectives with other national strategies, such as e.g. the national climate change strategy, can increase consistency and coherence of the efforts.
- It is of importance that the programming documents, i.e. NSRFs, explicitly include climate change measures and map the potential of climate change measures for economic growth and job creation. As the economy is always higher on the political agenda, the description and definition of overlapping between CC and economy might boost CC integration into CP.
- “Minimum requirements” should be identified which is explicitly targeted to the EC itself and should be taken up in the next regulation?

2.2 OPs encouraging climate change positive investments

As well as the NSRF sets the overall framework conditions for the climate change actions foreseen under the CP, the individual OPs frame the specific priorities and outlines the measures to be implemented. Analysis of the Operational Programmes has shown that there is a close alignment of all OPs with the Community Strategic Guidelines (EC, 2006). In Competitiveness OPs, ‘Energy use and intensity’ and ‘Increase of renewable energy in the energy mix have relatively high priority in the EU MS. These priority themes in the Regional Competitiveness and Employment Objective programmes show the potential that energy and renewable energy and efficient energy management systems have to contribute to fulfilling the goals of growth, jobs and sustainable development. In Convergence OPs ‘Management of natural resources’, ‘Clean water, air and soil’ and ‘Sustainable transport’ are the most important sustainable development priority themes. The ‘Management of natural resources and climate change’ themes have, overall, a medium level of priority, which is higher than in Competitiveness regions (Nordregio, 2009). But these tasks are explicitly mentioned in the programmes for rural development.

The below examples represent direct measures aiming to address climate change mitigation issues through energy related investments. These measures can be complemented by indirect interventions required by the national standards and regulations

UK: Environment as an Economic driver and Growth within Environmental Limits

The South West of England Regional Development Agency (RDA) is the intermediate body for the delivery of two ERDF programmes within the South West of England. Environmental sustainability and the development of a low carbon economy is a key strategic theme embedded throughout the region's two OPs. The programmes recognise the importance of 'Environment as an Economic driver', Growth within Environmental Limits, the principles of one-planet-living and the role that increased carbon literacy within the South West region can bring about increased levels of economic resilience. The approach to delivering against these objectives is three-fold:

- De-resourcing – Reducing the environmental intensity of existing business practices
- New business opportunities & economic resilience – looking at new ways of doing business, commissioning environmental 'positive' projects and investments, developing new business models and opportunities in growth of environmental goods and services sectors
- Developing integrated individuals' and businesses' skills to increase the regions carbon or environmental literacy and awareness – building capacity and resilience into future economic development

A joint ERDF/ESF Programme Monitoring Committee operates across both Convergence and Competitiveness Programmes seeking to draw synergies between ERDF and ESF Programme delivery. The South West RDA is the first RDA to set a corporate target for delivering a net-zero carbon investment portfolio by 2013 for non-EU Investments.

Italy: Multi-regional OP Renewable Energy and Energy Efficiency

In the programming period 2007-2013, an OP entirely dedicated to energy measures has been introduced in Italy. The multi-regional Renewable Energy and Energy Efficiency OP was developed for the Italian regions of Apulia, Campania, Calabria and Sicily. The OP has a total budget of around EUR 1.6 billion. The following represent some of the expected impacts of the OP's investments within this OP expressed through targets:

- increased RES share in energy consumption (from 4.7% in 2006 to 6.1% in 2013);
- energy saved (1250 thermoelectric power – tep);
- reduced greenhouse gas emissions (1 megaton CO₂/year);
- 7 400 jobs created;
- reduced dependency on fossil fuels;
- reduced dependency on energy imports.

Italy foresees to allocate EUR 4.4 billion (EU funds and national co-financing) on EE and RE measures for the period 2007-2013. This is a significant increase compared to the 2000-2006 programming period's allocations of EUR 800 million. On the other hand, this allocation of the EU funds is the unique funding scheme for EE and RE in Italy. In other countries the EU funds increase the national expenditures for EE and RE with less than 1 %.

The box below presents examples of how MS formulated climate change related priority axes and measures in their OPs. EE and RES measures related to climate change can be included under several types of priorities. For example, sustainable transport measures can be supported

by enhancing investment in public transport and by the construction of cycling pathways. EE measures are easily incorporated in construction and renewal of housing infrastructure.

Box 3: Examples of climate change related priorities in selected OPs		
OP	Priority	Budget
Sweden		
Mid-North	Priority Axis 1: Renewal of industry, energy and environment-driven development	73.9 % of the total funding (EUR 177 million)
	The focus of this priority is put on innovation and knowledge industry, energy and environment as areas for support and growth. Bio energy and fuels is considered a priority area for development within OP Mid-North. Branch specific initiatives are foreseen in growth areas such as energy, environmental technology and tourism. Provision of risk capital is another support area.	
Germany		
Berlin	Priority 4: The Environment	n/a
	This priority focuses mainly on climate change, to be addressed in particular by measures to increase EE and R&D in the area of the environmental technologies, the protection of waters, to be achieved in particular through measures to improve water quality, and nature and landscape protection, to be implemented in particular through measures to maintain and expand existing nature reserves and areas of protected landscape and to safe guard biodiversity.	
Slovakia		
Environment (OPE)	Air protection and climate change mitigation.	EUR 180 million (10% of total OP budget)
	Includes support for renewable energy sources. (budget for this measure is EUR 45 million out of 180 million) Within each of the priority axes, measures contributing to CC mitigation and adaptation can be included.	
Competitiveness and Economic Growth	Priority Axis No.2.	EUR 170 million (OP total: 772)
	<i>Measure 2.1</i> increase energy efficiency in energy generation and energy consumption and introduces advanced technologies in the energy sector. <i>Measure 2.1</i> establishing and modernising public lightening for towns and municipalities and consultancy providing in the field of energy sector.	
Hungary: The Environment and Energy Operational Program (EEOP)		
The Environment and Energy Operational Program (EEOP)	Priority point 4.1. Renewable Energy	EUR 253 million (5.15 % of EEOP)
	Priority point 5.1 and 5.2: Energy Efficiency	EUR 154 million (3.14 % of EEOP)
	Besides, energy projects can receive funding from the budget for preparation of bigger projects (EEOP 7) and promotion projects for sustainable use, and E-environment (EEOP 6).	

The example of Aragón and Andalucía regional OPs provides for a strategic approach in tackling climate change on OP level through including it in priorities, specifying actions and through including a horizontal priority of climate change.

The objective of the **Aragón regional OP** is to fight against climate change, formulated as reducing GHG emissions. The OP highlights the climate change integration concerns into research enterprises and public bodies and emphasizes the need to know the climate change tendencies in Aragón in order to establish appropriate adaptation measures for those most vulnerable sectors and territories.

Specific actions:

- Audits related to the efficient use or energy resources
- Proposals for the integration of climate change considerations in green public procurement.
- Development of climate atlas, an inventory of atmosphere polluting emissions, a catalogue of green public procurement, and awareness raising campaigns.

The **Andalucía ROP** includes CC as a horizontal priority. The number of actions to alleviate or prevent the effects of climate change is monitored through as an output indicator (for more information on indicators see [Chapter 4](#)). It is indicated that Andalucía's contribution to mitigation and prevention of climate change effects will be achieved through:

- Citizens awareness and information raising;
- Actions directed to those sectors not covered by the Trade Law (diffuse sectors);
- Combination of economic growth with the fulfilment of the Kyoto Protocol;
- Management models for climate change control;
- Actions related to climate change under Lisbon category of expenditure 57 (tourism).

Projects that take into account climate change concerns will be positively assessed. In relation to the development of the tourist sector it is foreseen that actions take climate change considerations into account.

Key points:

- Including a climate change related priority increases the possibilities for successful implementation of climate change positive projects.
- EE and RES measures related to climate change can be included under several types of priorities.
- The pure figures can't measure the performance of a country as it leaves out the national expenditures. Maybe we should request that the share of EE and RE have a relation to the national goals (as the 2020 goals)
- The SEA process did not contribute sufficiently to strengthening environmental integration in the OPs at the time of their preparation. Need to support this statement within the text.

2.3 Carbon intensive investments in New Member States and the role of the indicative list of projects

Investments implemented under the Convergence objective represent the bulk of the most carbon intensive projects supported by the Cohesion Policy. Convergence regions are mainly found in the New MS but also include less developed regions in the old MS⁴.

All the 12 new Member States are eligible to both the European Regional Development Fund (ERDF) and the Cohesion Fund. A main part of the latter allocations is diverted to the transport sector. Out of the overall allocation to transport, 55 % is allocated to road construction (including motorways, national, regional and local roads). Less than one-third of the transport funding (EUR 15 billion) is to be invested in railway infrastructure and only one-tenth (EUR 5.7 billion) in urban public transport. Some countries have also planned to use the Community funds to develop other modes of transport such as ports in Cyprus (30% of the overall allocation to transport), Latvia (16%), Malta (25%).

Among the NMS, Bulgaria, Lithuania, Romania and Slovakia score the lowest on public transport, planning almost no or only very meager EU funding for this sector. The biggest EU funding support for public transport, relatively, is planned in Hungary and Estonia. Estonia is positive example through the way it sets appropriate objectives and indicators in its OPs: it aims to preserve the 35% share of public transport in total passenger kilometers, to increase the number of electric rail passengers by 50% and tram and trolleybus passengers by 35% by 2013. Unfortunately, such objectives and indicators are rare among the CEE countries (CEE Bankwatch/FoEE, 2008).

In many of the new member states, specific OPs for transport and environmental infrastructure were developed which included Lists of indicative projects (or the so called “major projects” that embrace project above EUR 25 million for environmental and above EUR 50 million for transport projects). The lists of indicative projects aimed at demonstrating the readiness of a number of projects to be implemented within the 2007-2013 period and as such were approved by the EC as part of the OPs.

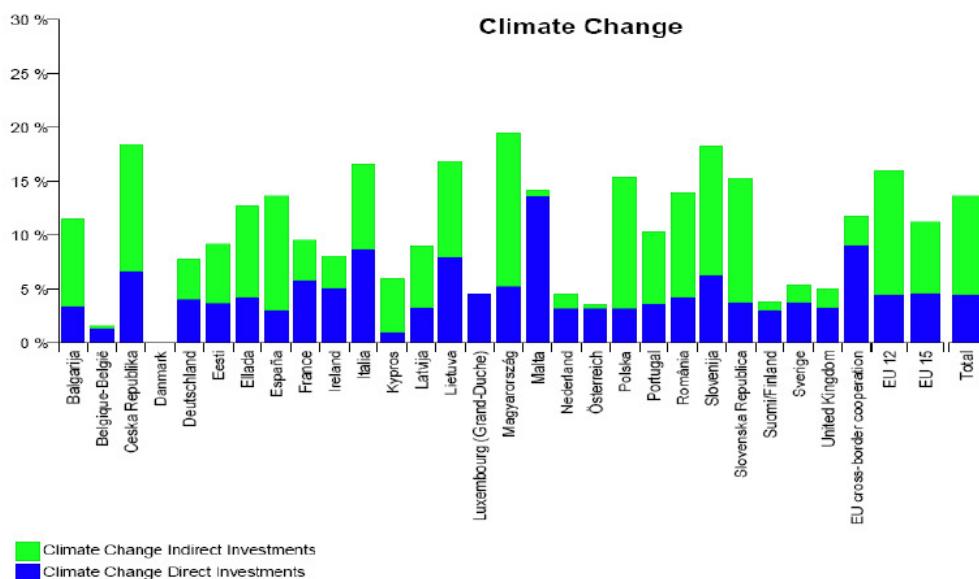
Key points:

- The indicative list of project includes carbon intensive projects which are problematic in terms of OPs “climate neutrality”.
- It is a questionable how the “climate neutrality” principle was translated into the selection of individual projects and if there were any assessment carried out on the projected cumulative or individual emission reduced / induced by these projects.
- Obviously it is up to the MS where to spend the money. You cant change the Bulgarian approach by best practice examples. It would be better to recommend that the EC reserves a minimum share of transport means for public transport.

⁴ Apart from NMS, convergence regions include Portugal, Southern Italy, Eastern Germany, Southern Spain, parts in South-Eastern England and Greece and the French outermost regions.

2.4 Possibility for revision of the current OPs

In the current programming period, EU funds for EE/RES across the EU-27 account for EUR 9 billion EUR, which represents about 3 percent of the total funding. In the new member states this figure is 4.2 billion (app. 2.4 percent). Considering also the share of RES investments in direct EU budget spending as part of the Recovery Plan (just EUR 500 million), the allocations for EE/RES from the EU funds are now even more vital. An increase in the EU funds allocations can be achieved through a revision of the OPs (CEE Bankwatch). A key question is to revise the OPs in such a way to include more climate change mitigation and adaptation measures per se and to stimulate the incorporation of climate change mitigation and adaptation projects in other types of investments.



In the light of the economic and climate crises, MS should conduct mid-term evaluations of the implementation of their OPs and revise them so to allocate more resources into climate mitigation into housing (up to 4% of the ERDF to be used for EE/RES). The revision is made possible since the changes in EU funds regulation 1083/2006 were adopted by the European Parliament and the Council in April 2009. Given the urgency for necessary climate mitigation and adaptation investments, and based on the mid term evaluations, MS should develop "road maps" for low carbon regional development. The evaluations should assess the investment needs in terms of projects, training, employment, etc. for climate mitigation and adaptation at regional level. These needs should be addressed as much as possible through revisions of the current OPs or in the programming of the OPs within the next 2014-2020 period.

Moreover, in relation to the territorial cohesion the mid-term evaluations should take into account the territorial impacts of climac changes (especially in coastal, mountain, etc. regions

which are particularly vulnerable) as well as evaluate which regions hold potential for developing into low carbon development champions. The current research project by the European Observation Network for Territorial Development and Cohesion (ESPON_2009-2011) actually acknowledged the fact that given the expected diverse impact of climate change on the different regions/territories of Europe, these regions and territories need more innovative development strategies which go beyond the knowledge based economy.

Climate change has gained significant momentum on the political and policy agendas only after the drafting of the programming documents for the period 2007-2013 therefore climate change per se has not been incorporated to a sufficient extent. There are MS which will use the opportunity for mid-term OP revision to correct this deficiency.

France

As the regional climate plans⁵ are being drafted at the moment, the possibility for revision of the OPs might be used to include more climate change adaptation considerations. A possible revision in France would also take into consideration the outcomes of the Grenelle de l'Environnement – an important framework for consultation of environmental policies that came up with concrete legislation proposals.

Austria

In the past years revision of OPs favoured environmental projects. As these projects were sustainable and without major risks, the environmental funding was always seen as good opportunity for the programme managers to shift money into these projects when other instruments or sectors had problems to spend it.

Key Points:

- The funds allocated to EE/RES investments across the EU-27 are small. In the current programming period it accounts for less than 3 percent of the total funding. In NMS, this share is even lower.
- An increase in the EU funds allocations for EE/RES can be achieved through a revision of the OPs

III. Climate proofing the project cycle

This chapter focuses on integration of climate change aspects into the stages of the development and delivery of the projects financed by the Cohesion Policy. The chapter is divided according to the stages in the project cycle starting with methods of project selection, design and preparation, assessment and scoring. Project monitoring is discussed in [Chapter 4](#).

3.1 Methods of project selection

⁵ Plans Climat

It is important that the integration of environmental and climate change related aspects is encouraged from the beginning of project development. This can be achieved through highlighting the environmental requirements of the programme; providing sufficient information to the project proponents on how to comply with these requirements, outlining environmental and climate related evaluation criteria. There are different approaches to cohesion policy programme delivery: commissioning, general announcement and call for proposals. No matter which method is used, it is of utmost importance that the climate aspects are properly integrated.

Commissioning approach

General announcement and calls for proposals offer one particular approach to Programme delivery; however there are examples of other approaches such as the commissioning led approach applied in the South West England.

This commissioning approach aims to deliver a package of investments and projects that are more integrated and mutually coherent with the aims and objectives of the regions two Structural Fund Programmes. The commissioning approach meant a great deal of consultation and partnership working with regional stakeholders and partners in the development of the Operational Programmes yet this investment of time early in Operational Programme delivery has arguably led to a more coherent package of investments whereby economically the ‘whole is greater than the sum of its parts.’

The commissioning approach in South West England functions in the following way: regional partners and/or South West RDA commissioning managers can submit project and investment ideas to the Programmes Commissioning Delivery Boards. The Board assesses projects strategic compliance with the Operational Programme and in case of such, a commissioning stage starts, whereby a business plan is developed that is subsequently appraised and endorsed. Additionally there are a range of framework documents (localised strategies - either geographical or by investment type) that define a strategy for project delivery. i.e. they detail the problems and issues experienced in an area and what investments and projects would help overcome these problems or issues. These framework documents therefore give a clear indication as to what the Programmes should approve.

A commissioning approach to programme delivery should enable a greater ability to embed climate proofing and environmental sustainability into priority objectives, project design, scope and specification thus enabling greater control over project delivery when moving through contracting and procurement processes.

General announcement

The general announcement is used to collect applications on a “rolling basis” without call or deadlines. Each project proposal is evaluated based on its own merits against the selection criteria. Projects are then funded on a first-come, first served basis as long as they score high enough to be approved.

Call for proposals

The calls set the basic framework for the characteristics of the projects to be funded. Calls for proposals are used to invite project proposals for a specific bid, and available funding is awarded to the top ranked applications. The way the call for proposal is formulated can steer the

direction of the development of projects and therefore have a positive influence on the formulation of projects. The authors assume that properly formulated calls for proposals, in which climate change aspects are accommodated and clearly spelled out, may lead to better quality projects from a climate change point of view.

At this stage incorporation of climate change considerations can be enhanced by ensuring that the standard application form includes questions on compliance with relevant climate change related targets and a section allowing applicants to describe potential carbon impacts. A requirement for compliance with minimum climate requirements can improve the project objectives and outputs from climate perspective.

A way to stimulate the preparation of climate related types of projects is through launching thematic calls for proposals. Good example of such calls exists in Finland.

Finland

In some regions in Finland, thematic calls for proposals have been used as a way to attract projects to specific areas of growth and development. For instance, environmental and climate change themes have been launched in the calls, in order to give increased emphasis of the role of environment and climate change in the spending programmes. Case study on Finland is available in [Annex 2](#).

Climate proofing at the initial project stage is especially a challenge in the cases of transport infrastructure projects in the new MS. According to a report (Bankwatch/FoE "Do EU funds contribute to CC abatement in the new MS) 55 % of the EU funds in CEE-10 countries for the transport sector will be allocated to road infrastructure projects (motorways, highways, regional and local roads). The support for carbon intensive investments raises the question of assessing the effects of these projects on emission increase and measures to mitigate the adverse impacts.

Key points:

- In addition to call for proposals and programme announcement approach there are other approaches such as the commissioning process applied in UK which enables to embed climate proofing to a greater extent in the project scope and design.
- There is an insufficient knowledge among the project applicants on the opportunities that climate change related projects offer. There is also a limited experience with the possible types of activities and outputs of such projects. A possibility to increase the knowledge and strengthen the capacity is through organizing thematic calls for proposals and providing technical assistance to project applicants.

3.2 PROJECT PREPARATION AND DESIGN

The project design and preparation is a critical stage for environmental integration, as it is the phase when project goals and outputs are defined. The two main ways in which OPs can improve the integration of the climate change considerations into project development and

preparation are through the project application documents and through assistance and guidance to project applicants.

This subchapter presents good examples of application documents, followed by guidance documents for project applicants and managing authorities and technical assistance approaches. As there is insufficient knowledge how to design projects which are positive from climate perspective, effective communication practices and awareness raising activities are also outlined. The presented tools are applied for both SF funded projects and other investment programs.

3.2.1 Application documents

The application documents provide an opportunity for the project applicant to demonstrate how environmental considerations are integrated into the project scope. Specifically, to stimulate climate change integration, application forms should contain relevant questions that enable applicants to fully consider and convey these aspects of a project. Generally, application forms can contain the following:

- a question on compliance with relevant environmental legislation and particularly its climate change related aspects;
- a separate section for applicants to describe the climate change impacts which the project may have;
- the opportunity to state climate change targets to be achieved by the project, if relevant;
- information about any special incentives to proactively encourage projects to consider environmental and climate change related components, such as higher grants, etc.

In this respect, a good practice can be highlighted in the implementation of Berlin OP (Germany): A system of environmental indicators was introduced in the application process which refers to 1/investment projects in industries with energy consumption and CO2 emissions above the average and 2/service oriented businesses. Regarding the investment projects the applicants are required to specify the energy consumption and CO2 output associated with the project implementation. In case of negative impacts on the environment, the project can be approved subject to the modification of the proposal or introduction of environmental management system. Regarding projects in the service sector the applicants need to demonstrate that the businesses follow environmental management system or climate friendly business practices. (Kurzdarstellung des Umweltkennziffernsystems für die Förderperiode 2007 – 2013 (2015).

To streamline the effectiveness of EU and national funding in some countries (France, Austria) a common application process is applied for both ERDF and state funds. In France following the ‘common governance’ concept there is a common application form for ERDF and state funding (Nord-Pas de Calais). Section II of the application form is called ‘Analysis of the taking into consideration the environment’. It is split in two parts. Part 1 analyses the legal environmental procedures that the project proponent has to comply with during the implementation of the project. Part 2 is called ‘Potential negative environmental impacts, correction measures and project monitoring indicators’. This obliges the proponent to consider such correction measures and the first vector of action is ‘combating climate change’, (See [Annex 3](#)). The proposed

measures are improved and strengthened with the support of the evaluators during the preparation of the project. The project beneficiary has to fill in a set of obligatory indicators but other potential indicators for monitoring the environmental performance of the project have to be offered as well. At the end of the project the beneficiary makes a final statement of the performance of his project and compares them with the initial assessments.

Environmental Sustainability Reporting Form, UK

The excel-based form has to be filled in by the applicants and is focused on priority and project relevant output and outcome environmental indicators. Some of these refer to compliance with the environmental principles of reducing carbon intensity and moving towards low carbon economy. The form includes questions regarding environmental sustainability of infrastructure projects, revenue/business support based projects and revenue based/business support focused investments. The form can be found in [Annex 4](#).

3.2.2 Guidance facilitating the project design

The advice and guidance to the project applicants will depend on the specifics of the project, capacity and knowledge gaps. A number of guidance documents have been developed by the Managing authorities with the aim to support the project design for better integration of environmental sustainability issues. Since reflection of climate change issues into the OPs is an emerging area the guidance for their integration is a component of the overall guidance documents on environmental integration. However, with the increasing priority of climate change the existing toolkits can serve as a basis for development of toolkits specifically focused on climate change aspects. Some of the existing tools are listed below:

Generic Environmental Sustainability Guidance (UK)

The purpose of this guidance is to provide an overview of the environmental responsibilities and commitments that delivery partners are to consider in the development of projects and commissioning activities as part of the EU Programmes operating in the South West of England between 2007 - 2013 (ERDF, ESF including both Convergence and Competitiveness and the European Rural Development Programme for England). The guidance supports the commissioning process and is more generic in nature coupled with tailored on-site support (where deemed relevant), to demonstrably imbed environmental sustainability in such a way, ensuring potential benefits and opportunities are maximised. The guidance elucidates the 6 key environmental strands that projects and commissioning activities should consider and imbed within project design and development. More information is provided in [Annex 5](#)

All guidance seeks to differentiate between the strategic, implementation and operational environmental impacts and opportunities of projects and investments, helps to raise environmental awareness of investment partners at the project inception commissioning stage.

Hungary

For some OPs (e.g. Economic Development) a guideline for the integration of Sustainable development was prepared in 2008, with the intention to help project proponent including sustainable development consideration during the project cycle. The guideline precisely describes the eligible 60 actions, from which, four actions directly concern EE, two RE and one - the reduction of CO2.

3.2.2 Technical assistance for strengthening environmental and climate change aspects of projects

The authors have attempted to collect examples of institutional structures or other mechanisms which have been established to strengthen the environmental/climate change components of the projects to be funded.

Sweden

The **Swedish Network of Municipalities on Climate Change** was initiated in 2003 and consists of municipalities and county councils that share the commitment to reduce green house gases at local level. One of the services of the network is the climate **coach**. This is a phone service where municipalities can get targeted assistance in initiating climate work at the municipality level and developing climate strategies. The service is free of charge for municipalities and is financed by the Swedish Environmental Protection Agency. Services provided are:

- Answers to general and specific question on energy and climate statistics and climate strategies;
- Access to further contacts to other stakeholders and experts as well as media;
- Advice on developing a climate change strategy;
- Advice about climate change measures;
- Feedback on draft and ideas of strategies and plans (www.klimatkommunerna.se).

After 18 months from the start of the project, half of the municipalities that received help from a climate coach now have a climate strategy either fully adopted or in preparation. In the rest of the municipalities the process of developing a climate strategy has begun. The climate coach has showed that by combining various skills from several municipal administrations all the necessary competence is often actually already available (Journal Nordregio, 2008).

Austria

In Austria a similar mechanism to the Swedish climate coach is available. It is possible to get state subsidized advice from regional and national agencies. Consultancy for identification of climate measures (as the need of energy efficiency measures) can also be financed by SF programs (as the Eco-business plan Vienna – Györ, financed by INTERREG). It is not related to the SF but the investment projects which result from this consultancy can get SF funding. Austria also included a link between investments and consultancy/coaching in the national funding. Applicants can receive e.g. 5% more funds if an energy consultant is engaged. This approach can be extended to the SF.

UK

In UK, South West of England two cross programme advisory groups are established for both Competitiveness and Convergence Programmes, one regarding Environmental Sustainability the other Equalities. The Secretariat of both groups is administered by the South West RDA's **Environmental Sustainability Manager and Equalities Advisor**. Single Environmental Sustainability Manager assists investments and partners in delivering of the strategic environmental sustainability objectives of the OP's. The Environmental Sustainability Advisory Group is chaired by the Environment Agency's Regional Director and includes regional key statutory, NGO and Local Authority Environmental partners. The purpose of this group is to set requirements for investments and projects regarding reduction of their environmental intensity,

analyse and adopt the best practices around the region and ensure adequate and auditable project environmental outputs and outcomes management and monitoring.

Theme manager ensuring environmental integration in SF projects in the UK, Merseyside region (from the 2006 REC report: "Environmental projects financed by the EU funds"). A cross-cutting theme manager is designated to ensure environmental sustainability of all submitted projects. The study includes guidelines on the cross-cutting theme, intensive trainings on environmental impact awareness for a broad variety of stakeholders and the procedures for preparing, selecting and monitoring projects.

There is a unique and very successful structure which exists in France (Nord-Pas de Calais) – **Environmental Support Mission (MAE)**.⁶ It is composed of one representative of the state and one of the region with a goal to assist in integrating the environmental considerations into the SF co-funded projects. More information is available in [Annex 6](#).

In the New MS there is greater need for assistance to project proponents on integration of environmental considerations due to limited experience and existing knowledge gaps. The assistance provided by the managing authorities mostly refers to preparation of proposal and compliance with the administrative procedure. The NGOs can contribute to the capacity building of applicants by participation in trainings and bringing valuable expertise how to make project proposal more CC friendly.

3.2.4 Communication, coordination and networking

The authors believe that improved communication, coordination and networking have the potential to improve the climate change performance of individual projects.

Communication and coordination exist on several levels:

- between Managing Authorities and project proponents – for the sake of better communicating the subject matter of the calls or the expected measures;
- between technical support bodies and MA – for the sake of defending and insisting on stronger climate change measures within the projects;
- between technical support bodies and project proponents – for the sake of better incorporating concrete climate specific measures into the projects;

The whole system may also benefit from better networking between managing authorities with or without the facilitation of the central authorities.

Examples of awareness raising models and good communication practices between Managing Authorities and project proponents; examples of techniques for good collaboration in view of enhancing CC-mitigation and adaptation aspects in CP-funded projects are given here:

Austria

In Austria there is a an institution, the Austrian Conference on Spatial Planning - Österreichische Raumordnungskonferenz (ÖROK) which plays an important role as the co-ordinating body

⁶ Mission d'Appui de l'Environnement (MAE)

between the Managing Authorities, national and the European level. The Austrian system for managing the Cohesion policy which, in combination with sound national climate policy and legislation results in relatively high share of climate measures in the regional “OPs. More information is available in [Annex 7](#).

France

In France for the non-environmental OPs there is awareness raising towards project proponents on better incorporating environment in their proposals. See the example of **Environmental Support Mission (MAE)**. More information is available in [Annex 6](#).

Assembling of a guide on best regional practices in taking into consideration the environmental integration into the Cohesion policies, France

These regional practices have been collected by DIACT⁷. They vary significantly as regions are free to choose their approach on the basis of their characteristics, priority, SEA of the OPs, etc. The collection aims at strengthening the regions' awareness of incorporating the environment into the EDRF and CPER funding as a follow up to the SEAs conducted at the stage of drafting of the OPs. The collection also aims at improving the performance of all stakeholders in the regions as well as at exchanging good practices between the regions. More information is available in [Annex 8](#).

Spain

The Environmental Authorities Network in Spain

Established in 1997, the Spanish Environmental Authorities Network is a forum for co-operation and co-ordination between authorities responsible for the environment and for the programming and management of the Structural Funds and the Cohesion Fund at different levels. The network is managed by the Ministry of Environment. Its objectives are to ensure the integration of the environment in activities co-financed by Structural Funds and to monitor the implementation of, and compliance with, European environmental legislation. The network also supports working groups on incorporating environmental aspects in different economic sectors, and has produced a range of useful guidelines and methodologies (e.g. on strategic environmental assessment. It has promoted environmental awareness by developing the “Environmental Awareness Module” for training courses and “Good Environmental Practice Manuals” for various professions (GRDP, 2006).

Italy

The Italian Network of Environmental and Managing authorities of the SFs

In 1998 Italy set up a formal Network of Environmental and Managing Authorities at central and regional level. In the previous programming period the network promoted the integration of environment in all development programmes through technical support, training and exchange of information. It contributed to strengthening the relationships between authorities in charge of different sectors; increasing the knowledge of environmental topics; and above all, it facilitated the integration of environmental and sustainable policies in Structural Funds Programmes. The network was supported by a task force of experts with different skills who

⁷ Délégation inter-ministérielle à l'aménagement et à la compétitivité du territoire : inter-ministerial delegation for regional planning and competitiveness.

give technical help to national and regional environmental authorities working on regional development programmes. The network has also produced technical and methodological guidelines, studies and analyses on specific environmental issues, and monitors environmental integration. It is foreseen that the activities of the network continue in the 2007-2013 programming period.

Key points:

- In some countries positive steps can be observed in strengthening the environmental focus of the application forms including from climate perspective through the inclusion of questions related to emission reduction and energy consumption.
- Existing guidance documents on how to reflect environmental sustainability issues in the project proposal are an instrument for improving the quality of the proposals also from climate perspective and enhancing the knowledge of the applicants.
- Technical assistance to project proponents plays an important role in strengthening the knowledge of project proponents in integration of climate change considerations into the project proposal. Designating personnel providing support to the applicants (e.g. Environmental Sustainability Manager and assistance through climate coach) are positive examples of targeted support.
- Consultation with environmental authorities at the application phase is a good practice that is to be strongly encouraged. In some countries there is accumulated experience with environmental networks that maintain active dialogue with project applicants and assist with integration of environmental aspects into the project proposals.

3.3 PROJECT SELECTION, ASSESSMENT AND SCORING

In case of individual projects, the selection and evaluation process is based on the principle of competition among proposed projects or using a "threshold" score. In some cases - like in the UK, concrete projects are commissioned. This means that these projects get either EU funding or no funding at all. Other countries such as Austria elaborated completely different selection procedures where EU projects are selected out of a sample of pre-selected projects for national financing.

This subchapter presents some examples from the selection process in the case of calls for proposals. Selection procedure in the commissioning process in UK is also outlined.

Commissioning process in UK (South West England)

Commission process requires projects with low carbon/ environment credentials within all stages of project evaluation or investment "life-cycle": commissioning, business plan, appraisal, endorsement and monitoring. This approach provides larger control by regional partners over the investment creating a more coherent and integrated package of investments and also over project procurement management and delivery processes. Both economic and environmental impacts can be 'more than the sum of their individual parts,' as investments and projects 'work together.'

Assessment criteria and project scoring in the case of calls for proposals

Assessment criteria play an important role in ensuring that the projects adequately address the environmental and climate change considerations. The exact formulation of the criteria will depend on the specifics of the project but in general these should refer to the impacts that the project may have on energy consumption, carbon emissions. Sound environmental management practices can be also introduced as a criterion.

In UK projects need to demonstrate that environmental issues have been proactively considered. For this reason, six environmental strands have to be addressed within each project:

1. management of environmental assets taking into account climate change and increased "storminess";
2. incorporation of environmental management skills within business through training and awareness raising;
3. development of business sector environment encouraging research development and know-how uptake;
4. resource efficiency increase for better competitiveness including CO₂ emissions reduction due to enhancement of energy efficiency and diversification, incorporation of renewable energy and BREEAM building design, calculation of carbon footprint of project or activity;
5. retaining of skill, business and investment in the region creating relevant partnerships and networks;
6. promotion of environmental branding, niche marketing and carbon literacy through awareness raising, environmental training and education, community involvement.

Slovakia

In the program manual and the special application guides the applicants are asked to specify if and how they intend to support sustainable development with their project. The Energy Efficiency and Renewable Energy related indicators should be obligatorily presented in the applications for projects that implement EE a RE related measures. The applicant for other types of project (not directly related to EE or RE utilisation) can state within the application form, whether the project contributes to any measure for the mitigation of the impact of climate change or whether it includes adaptation measures for climate change. This means that projects that do not contain any EE or RE measures, are not obliged to take into consideration any CC related measure and fill in EE and RE related indicators.

In Hungary for the current programming period, the project proponents for some OP can state their contribution to Sustainable Development in the application form and depending on the number of the actions undertaken, can get 1-5 additional points.

Slovakia: Scoring criteria for evaluators

For all types of projects, the technical feasibility part of selection has a 30-50% weighting factor, so that it plays an important role during the selection phase of EE and RE projects.

For other projects, under this technical feasibility part SD criteria are evaluated. As the SD indicators are evaluated as a single group, no special emphasis is given to CC indicators evaluation and the applicants could get only 1 point out of 100 for the whole group of SD indicators.

Austria: Mandatory energy saving measures

In case of infrastructure project development in the Austrian region of in Burgenland, it is mandatory by national and regional rules to undertake energy saving measures. In order to obtain national and regional funds every project has to prove to be energy efficient. Therefore, in Austria, it is the national standards, regulations and practices (including EIA and SEA) that drive the projects within every OP to be climate beneficial.

Eco-conditionality and eco-compatibility (France)

The regional measures on taking the environment into consideration (collected by DIACT)⁸ are divided into criteria (eco-conditionality) and recommendations (eco-compatibility). In the case of eco-conditionality if the project does not comply with criteria it is not selected: Eco-compatibility is a bit softer and there the projects which comply with the priority criteria have an advantage. Further details on eco-conditionality and eco-compatibility as well as examples of concrete measures can be found in [Annex 9](#).

Another example from France (Nord Pas de Calais) is the matrix for evaluating of projects under the thematic call “Territorial excellence”. The matrix is included in Annex 20.

3.3.1 Environmental assessments of project proposals

There are different institutional mechanisms that can be applied in the process of project appraisal (e.g. evaluation panel, specialized approval committee, etc.) Whichever approach is used it is important that the scores assigned to environmental and climate change aspects are significant enough to ensure that the project does not have a harmful effect on the climate.

The involvement of NGOs in the assessment committees is a possible way to improve assessment process, raise awareness and ensure transparency of the process. NGOs also can contribute to strengthening the capacity of the managing authorities especially in the New Member States, where there is still lack of sufficient experience and knowledge in incorporation climate change considerations. Some OPs provide for financing opportunities for funding NGOs involvement.

NGO involvement in the project appraisal in Hungary

In 2004-2006 experts from environmental NGO (National Society of Conservationists) cooperated with the Managing authority for Structural Funds to ensure environmental sustainability in the quality control of proposals during project selection. As a result, regional development agencies changed their pre-selection and scoring criteria and the Managing Authority adopted new guidance on environmental aspects for applicants. This also influenced other Managing authorities to reconsider environmental criteria for their 2007-2013 programmes (GRDP, 2006). In the current programming period the National Society of Conservationist is planning to evaluate the impacts of selected projects on climate change. Evaluation will start during the summer 2009 (GRDP, 2006).

Environmental Impact Assessment (EIA)⁹ panels in Finland

⁸ Délégation inter-ministérielle à l'aménagement et à la compétitivité du territoire : inter-ministerial delegation for regional planning and competitiveness.

⁹ Not to be mistaken with EIA as per EIA Directive 2003/35/EC

One of the biggest challenges in Finland is to secure the expertise and organizational capacity of the implementing authorities and to increase their commitment to carrying out an environmental assessment of project proposals. In response, six regions in Finland, comprising one third of the regions, have formed environmental assessments panels constituting of the implementing authorities of the region which oversees and participates in the environmental assessment of project proposals. In Southwest Finland, this practice is further developed and a special EIA manager arrangement has been established. There, the Regional Management Committee has authorized the Regional Environmental Center to assemble an EIA panel consisting of EIA managers nominated to each implementing authority. The environmental assessment of structural funds project is not to be mixed with the EIA proper regulated by the EIA Act 468/1994.

The checklist for assessment of project proposals is standardized in the 2007-2013 period and is included in the [Annex 10](#). The role of the panel is to participate in and to develop the environmental assessments processes of proposals at the authority level through dissemination of information and capacity building activities. The EIA panel consists of representatives of the Regional Council, the Employment and Economic Development Centre, the Regional Environmental Center, the state Provincial Office, the Finnish Maritime Administration and the regional department of the Finnish Road Administration (SYKE, 2008 and Hämeen Regional Environmental Center). By appointing EIA managers the task of developing the assessment procedure in the organization and the quality assurance is enforced.

The task of the EIA panel is to:

- Monitor and evaluate the actual environmental impact of projects
- Develop the common environmental assessment procedure of the projects (e.g. through giving advice and guidance to managing authorities)
- If needed, assess the impacts of individual projects
- Prepare an annual report to the regional management committee on the functioning of the panel and managers.

3.3.2 Generic checklists and guides for assessment of projects

The assessment of integration of environmental sustainability and project impacts on emissions can be improved with the help of comprehensive checklists. These also serve as an important tool for raising awareness of environmental considerations among project applicants at the project preparation phase. Climate change related questions are usually integrated in the checklist focused on a number of environmental topics and priorities. Examples of valuable checklists are presented below.

Environmental selection criteria of the 2007-2013 ERDF programmes (Finland)

In the SYKE report ‘Environmental Integration in the implementation of Finnish Structural Funds Programmes’, it is stated that compliance with sustainable development is an eligibility criterion in all OPs but that the criteria fails to fully incorporate the environment. However, the report concludes that Southern Finland is an exception and sets as a best practice example regarding compliance with the SD criteria. In Southern Finland, environmental impacts are one of six main criteria to be applied to all priority axes. The environmental impacts criteria are broken down into three sub-criteria:

- Promoting environmental know-how and environmental management
- Impacts on consumption, production, production/use of energy, emissions, traffic and combating climate change.
- Welfare factors of society and the environment

Preference is given to projects that comply with the programmes cross-cutting principles (sustainable development is one out of four) (SYKE, 2008). Häme Regional Environment centres in cooperation with Uusimaa, Southeast and Southwest Finland Regional Environment Centres has developed an additional sheet supporting the selection criteria and the definition of sustainable development to guide the implementing authorities through the selection ([Annex 11](#)) (Hämeen Regional Environmental Center).

Guide for ensuring the integration of the horizontal priority Environment (Sweden)

A guide supporting project owners and desk officers in selecting and enhancing environmental aspects of the SF projects has been developed by Swedish Environmental Protection Agency on behalf of the national managing authority (Swedish Agency for Economic and Regional Growth). In particular, it supports project owners of projects related to environmental technology, energy production, energy efficiency and thus climate change mitigation. However, no explicit reference is made to climate change adaptation. The guide has been widely accepted and is used by the majority of project proponents. It asks concrete questions that provides for clear answers and enables evaluations. The guide represents an awareness raising effort aimed at stimulating greater environmental awareness among both project proponents, managing authorities and selection committee. As it is not a detailed document, the guidelines provided function more as inspiration for ideas. Currently, there is no vision of making the criteria stricter, e.g. in terms of climate change. At this stage, the priority is to increase the ‘integration’ of the program itself and establish a closer cooperation with the companies(Swedish Agency for Economic and Regional Growth). More information about the guide is available in [Annex 12](#).

UK: Sustainable development toolkit for ESF projects that can be applicable in the ERDF funded programmes

In a web-based questionnaire the applicant has to answer 14 questions about sustainability of the project. As a result the applicant receives score and recommendations for improvement as well as links and contacts of organization that can help. It is a self-assessment tool which is aimed to be used by SF managers. The toolkit is available in [Annex 13](#).

Key points:

- Innovative institutional mechanisms (e.g. environmental panels) are examples of bringing expertise and knowledge in the assessment of the environmental aspects of the projects and contribute to strengthening the integration of environmental issues and building capacity of the project applicants.
- Checklists and guides for assessment of environmental sustainability issues play an important role in evaluating the impacts of the project on the environment. Climate change considerations are integrated in these checklists.

IV. PROJECT AND PROGRAMME MONITORING AND EVALUATION

Monitoring of individual projects and programmes in terms of their CO₂ impact is an issue of utmost importance and represents a challenge to all member states and the European Commission. In a period when EC climate change policies are getting stronger it would be paramount to align all other policies including big spending policies like the Cohesion Policy with the climate change ones. This has also been stated in the White Paper on Adapting to Climate Change (EC, 2009a). Therefore, there will be increasing pressure to the EC and the countries to fund projects that do not contribute to GHG emissions on an individual level or at least on an aggregated programme and/or regional level.

Several countries have project and programme monitoring systems in place but they are either at a very early stage of implementation or they have deficiencies and thus provide only limited analytical frameworks. Therefore, this is an area that needs significant improvement for the next programming period.

This is even more the case now that the reduction of greenhouse gas emissions (CO₂ and equivalents, in kg) has become a regional, as well as national and international issue encompassing both the Lisbon and Gothenburg agendas. It is also one of the core indicators and 31.5% of the OPs Competitiveness programmes (35 OPs) and 15.7% of the Convergence programmes (17 OPs) provide indicators for the reduction of greenhouse gas emissions (Nordregio, 2009).

Climate Change Indicators

Nearly half of the Member States (13 of 27) referred to GHG emissions in their national indicators, including Austria, France, Germany, Italy, Portugal, the UK, Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia. Countries, however, express the reduction of GHG emissions in different units, so it is not possible to aggregate the amount of CO₂ that will be reduced by the programmes. Some programmes in France and Hungary, for instance, measure the generated or reduced GHG emissions per year. Umbria (IT) measures these reductions per capita while Slovenia measures the reductions in percentage terms (Nordregio, 2009).

Table X: Examples of Greenhouse gas emission indicators

OP	Type	Indicator
UK, OP South East England	<i>impact indicator</i>	To contribute to regional target of stabilising region's ecological footprint, from current annual growth rate of 1.1% <i>per capita</i> ; 85,000 tonne reduction in region's CO ₂ emissions.
Greece, OP for Competitiveness and Entrepreneurship	<i>result indicator</i>	566,594 citizens will be served by natural gas (baseline: 266,594) for a reduction of 4,100 KT of CO ₂ per year - Energy saving (baseline: 2000).
Spain, Andalusia OP	<i>output indicator</i>	The OP specifies that five actions are to help in achieving the reduction of GHG

		emissions to 38,000 thousand tons by 2013 (baseline: 40,844 thousand tons CO ₂ in
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A report from the Finnish Environmental Institute (SYKE) concludes that a conventional indicator approach to monitoring may not be sufficient for environmental monitoring in the context of structural funds and SEA monitoring. Monitoring based only on baseline indicators does not meet the minimum requirements of the SEA directive (2001/42/EC). Especially baseline indicators are sensitive to the impacts of the programmes. Due to the small average size and/or nature of the projects, establishing a project specific monitoring system is usually not justifiable. Thus, an approach based on financial indicators is proposed. Financial indicators enable information on the pressure factors caused. By looking at what kind of projects has been funded, indirect information on impacts can be obtained. Such monitoring will not yield information on the actual environmental impacts but will capture the financial inputs that will provide indicative information on the programme's impact (SYKE, 2008).

In the case of Finland and Sweden it is very difficult to apply impact indicators to the monitoring because large scale projects with directly measurable impacts are usually not funded while project-specific monitoring systems of small projects are usually not justifiable

Examples of methods for monitoring individual projects in an ongoing manner or ex-post is presented below.

1. Project monitoring

Checklist for SEA monitoring, Austria

The project proponent of each project in Austria which gets funding from the SF has to answer questions on the environmental performance of the project such as the application of environmental certifications (EMAS, ISO 14001). Projects are divided into investment and non-investment ones. Non-investment projects (soft measures) are once more divided in projects below and above EUR 350.000. The EU intervention code is the next criteria.

The system is designed in such a way that every region (implementation agencies selected by regional managing authorities) should collect the SEA monitoring data from their regional OPs and belonging projects and should send it to a central database system. All regions use the same system with small regional modifications where needed. There is a common format for sending the data to the central database, determined by a SEA monitoring guiding document/checklist developed in 2007 that provides the methodology and questionnaire for SEA/EIA monitoring (SUP-Umweltdaten für die Programme „Konvergenz“ und „Regionale Wettbewerbsfähigkeit & Beschäftigung“ 2007-2013).

The checklist includes a section on air and climate change impacts and a section on energy efficiency issues and it contains indicators and questions such as use of fossil fuels, emissions of air pollutants, improving efficiency in production, services and mobility systems, project direct or indirect impacts on energy or resource efficiency, direct or indirect impacts on the mobility systems.

In theory the Austrian Cohesion policy SEA monitoring system provides a good basis for collecting and comparing the data related to climate change impacts of different OPs and different projects within them. However, the actual analysis of monitoring data in Austria will start in 2010 and the first monitoring reports will be available by the end of 2010. The actual virtues and drawbacks of the system will be clear only at this point in time.

In case of the Austrian SEA Monitoring mechanism described above, it is worth to mention that it is integrated into the overall cohesion policy monitoring system. In addition, the SEA monitoring data can be used for CP monitoring, but also separately (only in the environmental context) both on the national and on the regional level.

The ENEA WG „Cohesion Policy and SEA“ Draft Report from May 2008, also point to the Austrian model for successful integratioin of OP and SEA monitoring setting national level „standards“ and allows evaluations and comparisons between different OPs.

You can find the Questionnaire in [Annex 14](#).

France

The PRESAGE software s developed for the 2000-2006 period for the monitoring of Structural Funds and CPER and DIACT¹⁰ is in charge of it (http://presage-info.org/no_cache/accueil.html). There is an updated version for the 2007-2013 period which was done through wide consultation with stakeholders. The European Commission was closely involved in the development of the tool. The network connects all actors – Managing Authorities, certification authorities, evaluation services, regions and municipalities. The online, real-time system allows the monitoring and management of all projects in France from their submission to their archiving. The funding of the system is jointly provided by the EC, DIACT and other ministries.

Such system for monitoring of each submitted project electronically has to be developed in each country which is beneficiary of the SF. In Slovakia such system is called ITMS. It consists of all data regarding project, and except relevant authorities in MS also EC has access to it. Therefore also data about CO2 emissions of the project are inserted to this system and possibly it should be easy to get aggregated data for CO2 emissions of all projects.

UK

The OPs and their Delivery Frameworks (DF) require all projects to provide certain type and number of mandatory outputs. Project monitoring processes should be aligned with mandatory targets set by OP and DF, all possible negative impacts should be quantified and mitigated and all additional environmental inputs and outcomes should be delivered in the maximum extent possible according to ten identified sustainability principles (living planet principles).

It is envisaged that carbon footprinting and carbon intensity are also considered during project monitoring processes through application of carbon indicators and demonstration of carbon savings. Project proponents must demonstrate proactive consideration of environmental issues and particularly environmental gain produced by analyzing and identifying potential negative

¹⁰ Inter-ministerial delegation for regional planning and competitiveness

and positive environmental impacts and incorporating appropriate environmental policy. Further guidance will be developed regarding carbon monitoring requirements. Delivery partners will be required to:

- (1) define an appropriate methodology
- (2) Specify the boundary and scope of coverage (aligning to standards and best practice where possible),
- (3) Collect emissions data, calculate footprint and demonstrate savings over baselines, and
- (4) where relevant externally verify results.

The on-going management of cross cutting theme delivery and monitoring will be done through consultation with the Cross Cutting Theme Team, into Project Engagement and Risk Assessment Visits (PEVs) and on-going Project Progress and Verification Visits (PAVs). Through cross cutting theme engagement at these stages it will be possible to monitor delivery of cross cutting theme requirements whilst also capturing, foreseen and unforeseen, project impacts.

Selected international, national and regional practices for monitoring environmental sustainability (including monitoring approach adopted in previous EU Programmes) are provided in [Annex 15](#).

2. Carbon Neutrality and Programme monitoring

Carbon Neutrality, France

For the programming period 2007-2013 France has adopted the concept of **Carbon Neutrality**. The National Strategic Reference Framework for the 2007-2013 states that “*all State-region project contracts and operational programmes should aim to be carbon neutral. A monitoring system will be put in place to ensure this*”.

This means that the State representatives in the regions, responsible for negotiating each contract, have to factor in “carbon neutrality”, i.e. the overall investments written into the contracts should not lead to the emission of any additional GHG. This objective should be adhered to throughout the life of the contract and correction measures should be enforced if necessary.

The Carbon Neutrality principle takes into account the constraints linked to the contractual requirements of the State-Region Contracts (CPRs) in this way:

- Project applicants and developers and contractors have to **justify and minimise the impacts of any project that generates carbon emissions**, for example by imposing a “high energy efficiency” standard to new buildings planned within the project contract.
- **Compensate carbon emissions** through the development of low carbon projects, such as the development of renewable energy or public transport schemes
- Carbon neutrality means setting objectives easily achievable by all, in the short term, whilst adhering to the longer-term process of Factor 4¹¹.

Measuring Carbon Neutrality is a challenge that was approached through the development of a tool called NECATER. NECATER is a system for monitoring carbon performance of regional

¹¹ Factor 4 objective: achieving a fourfold reduction of GHG in France by 2050

programmes based on an aggregation of project specific data. The tool is used both for projects funded from Structural and Cohesion funds and projects funded through the budget. It serves for measuring the GHG emissions of OPs and for related decision-making. More information on NECATER is provided in [Annex 16](#).

Climate Change Escalator of Ambition, UK

In 2007 the South West RDA launched its special initiative aimed at significant reduction of the carbon impact of investments based on year to year improvements in order to achieve zero impact in five years. Currently, operating principles are under development to achieve a net zero carbon annual investment portfolio by 2013. The Energy White Paper from 2007 specifically committed the RDA to set carbon reduction targets in the Corporate Plan and annually estimate and publish carbon saving estimates of policies and programmes introduced by 2010 and 2020 (DECC, 2007).

A special carbon bank balance is created to manage investments in projects with a negative carbon impact leading carbon balance into deficit and investments in projects with a positive carbon impact contributing to overall impact and taking carbon balance into credit. It is intended that a net zero carbon annual investment portfolio is achieved by 2013. More information about the steps in the programme is provided in [Annex 17](#).

Finland

The environmental/climate change monitoring of programmes can draw on the data from the environmental assessment of project proposals. Climate change impacts could thus be monitored by looking at the share of the total assistance that has been given to projects with climate positive or negative impacts. The necessary information could be acquired from the EURA system. The benefit of this approach is that it takes advantage of an established procedure, as in the environmental assessment of project proposals in Finland (SYKE, 2008).

4.1 Evaluation

Evaluation is another stage of the programme cycle where environmental integration and climate resilience can effectively be ensured. Evaluations are an integral part of a “sustainability management system”, which deliver support for and legitimization of decision-making while being a vehicle for institutional learning (Schubert, U. and Stormer. E. 2007). They are particularly important planning tools as they can occur prior, during or after a programme is carried out aiming to provide a knowledge feedback and ultimately improve the quality of a development programme. Therefore, all EU spending programs should be subject to evaluation looking at their coherence with EU environmental/climate policies and strategies, their efficiency and effectiveness but also assessing environmental/climate trends, impacts, challenges and opportunities.

According to art.47 of the General regulation 1083/2006, EU funds programmes are subject to *ex ante*, *on-going* and *ex post* evaluation. An EEA study found out that many evaluations of cohesion policy were undertaken focusing on the level of spending or the distribution of investments between sectors at a country but no evaluation of the actual effectiveness of measures and their impacts. Overall, the study points out, evaluations are not properly embedded into the spending cycle. For example, ex-post evaluations are not used as a source of

information when preparing for the next cycle, which starts before evaluations are completed (EEA, 10/2009)¹².

In theory, these types of evaluation offer opportunities for environmental integration and climate proofing of EU funds programmes across the entire spending cycle. For instance, the ex-ante evaluations of the Operational Programmes 2007-2013 integrated Strategic Environmental Assessment (SEA). The aim of integrating the two evaluation systems was to make the OPs subject to an integrated assessment where environmental objectives were on par with economic and social ones.

Experiences from new member states showed that SEAs helped to identify environmental projects selection criteria for projects and determined a number of environmental indicators for monitoring. Still, the evaluations were carried out relatively late and given the low evaluation culture and traditions in these countries, there was little impact on “greening” or climate-proofing of the OPs. Another challenge is that the environmental indicators identified in the SEAs need to be integrated in the on-going evaluation systems but there is little understanding among national authorities when and how to organise this process.

The *on-going* evaluation aims to check the relevance of the interventions to the original programme’s objectives, its quality and effectiveness in terms of pursuing preliminary set of targets. This is a new approach introduced by the EU in the current EU funds regulations, renouncing the previously carried out mid-term evaluations, which are to be organised solely by the national authorities as a series of evaluation exercises in cases the OPs need revision.

For instance, the on-going evaluations can include an explicit assessment of the impact of EU funds programmes and projects on GHG emissions or ancillary effects from climate mitigation projects on the social and economic domains. Given the adopted 20/20/20 targets of EU Climate and energy package, member states can also use the on-going evaluations to identify climate mitigation and adaptation investment needs, which to serve as a basis for the post 2013 programming. There is a danger that if no timely assessment is done at regional/national levels on the impacts of climate change and the investment needs for the implementation of the EU climate package, it will be very difficult to carry our adequate programming for the post 2013 financial period and determine the contribution of EU funds to addressing climate change in European regions.

Ex post evaluation is the final evaluation which would study the outcomes of a programme and analyze them against the objectives. It is carried out by the EC and also has the potential to streamline environmental and climate objectives. For instance, it should be used to better understand the impact the cohesion policy allocations have on greenhouse gas emissions – whether and how it contributes to their reduction or increase. It should also analyze absorption capacity for climate projects, identify common barriers and success factors. This way the EC can invest into overcoming these barriers through adapting the European Social Fund to explicitly support capacity building, skill development, awareness raising as well as novel institutional mechanisms and “change agents” so to improve the programming, implementation and monitoring of climate projects and improve the quality of “projects pipeline”. EC should also evaluate the possible role in JASPERS in assessing different alternatives of a project taking into

¹²

account their climate impact and assisting member states to choose and implement the least climate harming projects. The EC will also be able to generate and disseminate best practice in climate financing and foster policy learning across EU.

Key points

- Monitoring of individual projects and programmes is a challenge for all Member States and the European Commission and there will be increasing efforts to design and implement performing monitoring systems.
- Common monitoring of CO₂ emissions caused by EU funded programmes in MS will be necessity but also a big challenge for the future programming period. However without performing some monitoring of OP performance in CC area and inventarisation of CO₂ produced it will not be possible to evaluate if the EU funds contributed to combating climate change impacts.
- It will be of paramount importance for the European Commission to adapt the Cohesion Policy to all other Climate Change policies.
- The EU does not put enough pressure on the Member States to use EU funds only or primarily for projects which are CO₂ neutral.
- In the case of Finland (and Sweden) it is very difficult to apply impact indicators to the monitoring because large scale projects with directly measurable impacts are usually not funded while project-specific monitoring systems of small projects are usually not justifiable.
- In some Member States, e.g. France, the concept of carbon neutrality has been adopted where neutrality has to be reached on a programme level and/or regional level.
- NECATER is the most elaborated software tool in EU for measuring the carbon impact of individual projects and programmes on a regional level. It is an instrument for carbon impact analysis mainly on an aggregated regional or national level.
- Strengthen evaluation systems in EU funds programme which focus on climate trends, impacts, challenges and opportunities prior, during and after EU funds programmes are carried out.
- Carry out rigorous on-going evaluation of the 2007-2013 to identify investment needs for climate mitigation and adaptation from EU funds in European regions and use it as a basis for the post 2013 programming

V. CLIMATE CHANGE AS AN ECONOMIC DRIVER; EXAMPLES OF CLIMATE CHANGE RELATED PROJECTS FINANCED BY THE COHESION POLICY

5.1 Climate change as an economic driver

Enhancing the EU resilience to the impacts of climate change will offer opportunities to invest in a low-carbon economy. This synergy is emphasised in a statement by Danuta Hübner, European Commissioner for Regional Policy:

"Support for the Green Economy and the environment goes hand in hand with the Cohesion Policy objective to deliver sustainable growth, jobs and competitiveness. In a difficult financial climate, this investment will be instrumental in creating long-term employment and reviving local economies as well as underpinning the EU's commitment to fight against climate change"(Rapid Press Release, IP/09/369).

The Stern Review assessed a wide range of evidence regarding the impacts of climate change and the economic costs. It also highlighted that actions on climate change can create significant business opportunities. New markets will be created in low-carbon energy technologies and other low carbon goods and services. These markets have good growth potential, and employment in these sectors will expand accordingly. Changes in energy technologies and in the structure of economies have created opportunities to decouple growth from GHG emissions (Stern, N, 2007).

Energy and climate change are key areas linked to several economic sectors and having an effect on the achievement of the Lisbon objectives. Such sectors include renewable energy (wind, solar, biomass, hydroelectric, geothermal) and energy efficiency; as well as co-generation and energy management, which are also eligible for earmarked funding in support of Lisbon goals. In addition, climate change-related measures provide opportunities for growth and employment through investment, as well as having a strong indirect effect in developing and disseminating eco-efficient technologies. It is expected that the significance of such measures will increase in the current economic crisis.

Energy efficiency and renewable energy measures are identified as one of the 12 priority areas for EU funded investments in the Community Strategic Guidelines. Their increased prominence in the EU Cohesion policy is supported by the fact that EUR 105 billion will be invested in the "green economy" through the EU Cohesion Policy in 2007-2013. The funding represents more than 30 % of the regional policy budget for the same period (Rapid Press Release, IP/09/369). Even though investments with positive impact on climate change are increasing compared to the previous period, further measures ensuring climate resilience of the Cohesion Policy are needed.

Focusing on environment as one of the main drivers for the economic development of a region will potentially lead to increased competitiveness of the region as a whole and its industries. It will also have numerous social spillover effects through employment, improved living environment and health.

The GRDP toolkit for integrating the environment into regional development recognized several other benefits such as 'promoting the identity of an area based on its environmental quality and sustainability as part of inward investment strategies' and also 'offering benefits to specific economic sectors like tourism' (GRDP, 2006).

The Swedish approach

The vision of an environmentally-driven growth is central for the Swedish SF programmes and is seen as a motor for regional economic development. The Swedish approach to "Environment driven growth" is found throughout the Operational Programmes. During the period 1999–2006

Swedish GHG emissions remained under the 1990 level by on average 4.5 per cent. At the same time its GDP has grown by an average of 3 percent a year. Consequently, Sweden's emissions of GHG are amongst the lowest in the OECD countries on a per capita basis. This example shows that it is possible to combine economic growth with an improved environment (SEPA website). The incentive for further integration will be increased in line with the new EU Climate package that implies sharper targets for Sweden (40 % reduction compared to 1990's level by 2020). There is interest to increase investments in this field from several of the biggest actors, such as the Swedish Agency for Economic and Regional Growth, the Swedish National Rural Development Agency, the Swedish EPA and the National Road Administration (Swedish Agency for Economic and Regional Growth and SEPA, 2009).

The OP Mid-North stands out in its efforts to reflect climate change mitigation and adaptation. The first priority axis of the OP is "*Renewal of industry, energy and environment-driven development*" which is given approximately 73.9 % of the total funding.

5.2 Examples of climate change related projects financed by the Cohesion Policy

The authors have made a brief overview of projects funded by the Structural Funds having an innovative element. Projects have been divided into:

- mitigation projects;
- adaptation projects;
- making the economic case of investments into low-carbon economy. Clusters for environmental technologies.
- examples of how 'conventional economic projects' and/or projects that have no vertical environmental outcomes have been adapted or changed to reduce their carbon/environmental intensity,
- skills/education based projects that have a carbon literacy development.

5.2.1 Examples of climate change projects financed

Mitigation

Accessibility of large retail units and traffic emissions (CO₂) in Oulu region, Finland

The main goal of the project is to examine accessibility of large retail units in Oulu region, to determine CO₂ emissions caused by shopping trips made by private car and to develop a tool which enables to illustrate optimal location of large retail units in relation to population concentration and jobs location. The aim of the project is to improve location of large retail units in order to minimize CO₂ from shopping trips and other traffic emissions. The total cost of the project is EUR 240 000 (North Ostrobothnia Regional Environment Centre)

Northern Ostrobothnia regional climate strategy. Finland

The main goals of the project are to draft the regional scenario for climate change, a basic strategy for adaptation and mitigation, climate programmes for different sections (energy, industry, traffic, land use, building, health, travel industry, private consumption etc.) and climate programmes for regions (several municipalities). The total cost of the project is EUR 117 000 (North Ostrobothnia Regional Environment Centre).

Northern Maritime Corridor (NMC), Sweden

The aim of this two-phase project was firstly to establish new/improved short sea shipping services to shift cargo from road to sea and thereby contribute to sustainable transport. The second phase aimed more broadly at integrating the Northern Maritime Corridor as a 'motorway of the sea' within the TEN-T network, thus improving the accessibility of the North Sea and the Northern Periphery regions. Funding: EUR 6.4 million in total, of which EUR 5.3 million in European and Norwegian funding (DG Regional Policy, Regio Stars Awards 2009).

EnergyAgency, NRW, Germany

In times of volatile energy prices and supply it is vitally important to develop innovative energy technologies and provide impartial guidance to companies, local authorities and individuals on sound energy management and the potentials of renewable energy. This is the role of EnergyAgency. NRW, the new central contact point for all energy issues in North Rhine Westphalia (Germany). Funding: EUR 42.9 million in total, of which EUR 6.3 million in European funding (DG Regional Policy, Regio Stars Awards 2009).

ISFOC - A Channel of La Mancha Towards the Future, Spain

The starting point for this project was a Research & Development plan for Concentration of Solar Photovoltaic Energy (CPV) promoted by the regional Ministry of Education and Science of Castilla la Mancha and the Politechnic University of Madrid. As a result, a new, regionally owned, R&D Institute was created: the Institute for Concentration of Photovoltaic Systems (ISFOC). In a short period of time ISFOC has become a reference project for the commercial use of CPV, helping companies and universities to adapt their supply to technological demand. Castilla La Mancha is the leading region of Spain in terms of solar photovoltaic energy and aims to reach 100% energy consumption from renewable sources by 2012 (DG Regional Policy, Regio Stars Awards 2009).

European Technology Centre (ETC) in Güssing, Burgenland, Austria

Cohesion Policy investment is helping Burgenland to develop cutting-edge technologies in the renewable energy sector. EU funding was an essential lever for triggering this development: nearly EUR 20 million plus additional regional and national funding was provided until now for renewable energy projects in the Güssing area (DG Regional Policy, Regio Stars Awards 2009). The so-called "Güssing Model" is the strategy of de-centralised, local energy production with all available renewable resources in a region. Since every region has certain renewable energy resources in different proportions, the model can serve as an example for many communities. Further details are available in Annex 18. ([Link](#))

Central production of photovoltaic electricity in the tropical Reunion Island

This project has enabled the realization of a power generating photovoltaic 1.433 MW on industrial buildings, self-reinforcing power of the island and creating local employment. Development techniques for installation of solar panels innovative tropical serves as a model for countries facing under the same conditions. Total costs EUR 6.9 million including EUR 623.000 from the ERDF (DG Regional Policy, Regio Stars Awards 2009).

Adaptation projects

CoastAdapt - The Sea as Our Neighbour: Sustainable Adaptation to Climate Change in Coastal Communities and Habitats on Europe's Northern Periphery. The total budget: is EUR 1.4 million (www.northernperiphery.eu/en/projects/show/&tid=61).

Safe roads in a new climate

The project is aiming to upgrade the regions country roads and adapting them to the changing climate. New knowledge will be developed and distributed about climate adaptation of roads and usage of bio-ashes. Pilot projects about road regeneration that will reduce the environmental impact of transports. (ERDF funding around 400,000 EUR) (<http://projektbanken.tillvaxtverket.se/>).

5.2.2 Making the economic case of investments into low-carbon economy. Clusters for environmental technologies.**Lahti Cleantech Cluster**

The Cleantech Cluster encourages innovation and investment in environmental technologies, particularly recycling, energy efficiency, water management and soil decontamination technologies, by bringing together different stakeholders to 'Connect & Develop', including small and large enterprises, education organisations and regional and local authorities. The cluster aims to promote regional development in Finland, to encourage collaboration between centres of expertise and to generate new, expertise-intensive businesses. The centers now cover around 60 percent of Finland's cleantech business and 80 percent of the cleantech research. The Lahti Cleantech cluster in Finland is a good example of promoting eco-innovation in SMEs. The community has invested EUR 1.5 million (700,000 from the ERDF). As a result of the programme, 170 new jobs have been created, 20 new clean-tech companies have set up in the Lahti region and the project has attracted more than EUR 30 million in total investments (Rapid Press Releases IP/09/369. The project has had a significant snowball effect on the development of environmental businesses in the country and even on an international level. A network of private and public companies was established throughout seven regions in the south of Finland. In the beginning there were 700 companies, a number that today has ten-fold, coming from seven countries. The initiative has now set up over 50 second- and third-generation projects (DG Regio website, success stories).

Krinova Environment Arena, Sweden

Krinova Environment Arena in Kristianstad, Skåne-Blekinge Region aims at encouraging enterprises of East Skåne to transform climate and environmental issues into business. The aim of the Krinova Environment Arena is to mobilise and strengthen companies' environmental awareness and to develop sustainable enterprise cluster within the climate and environmental field. Another objective of the project is that companies within the cluster work with innovation and renewal of the activities they implement. Dissemination of practical solutions and good examples concerning how climate adaptation leads to profitability is a central part of the project. Networking and knowledge and experience transfer between companies and between companies, universities and university colleges will be used in the process. The project received around EUR 71 000 from the ERDF, with 50 % co-financing from the municipality of Kristianstad (<http://projektbanken.tillvaxtverket.se/>).

Swedish model for Clean Growth

Skåne is investing in environmental technology as one of its major growth areas. One example is the project entitled Clean Growth that has received a grant of almost EUR 1.4 million from the ERDF under the priority "Innovation and Renewal". The objective of the Clean Growth project is to develop environmental technology innovation in the Skåne region. The main target group is SME which dominates the environmental technology sector. Models of cooperation between research, public sector and companies are established. The Clean Growth project will assist companies and SMEs of finding the right markets; provide consulting and market developing; export development; carry out analysis and studies and mapping environmental companies and business opportunities. Efforts are being made to stimulate green public procurement in order to develop the environmental technology sector. To create awareness among the municipalities concerning environmental technology is a central aspect of the project. Promoting exports is a vital component of the project (<http://projektbanken.tillvaxtverket.se/> and Sustainable Business Hub).

Environment Park, Piemonte Region, Italy

The Environment Park is a Science and Technology Park (STP) that combines environment and business and is part of a project involving four other STPs in the Piemonte Region. The project is a cluster in which small and medium-sized enterprises, research bodies and start-up companies can share services, join in new initiatives and develop new projects. The project has been made possible through close cooperation between all the local authorities and business associations. Benefits of the Environment Park include: large-scale remediation of an industrial area in the centre of Turin; 20 new businesses started in the Park since 1999; eight foreign companies located in the Park; about 500 people working in the Park, of whom 80% are graduates; about 150 new jobs created since 1999. Environment Park's facilities were planned according to the principles of 'green architecture' and made intensive use of innovative technologies, particularly in energy and water management. Environment Park is an innovation among European STPs thanks to its ability to combine technological innovation and eco-efficiency, hosting several companies and research institutes operating in both environmental protection and information and communication technology (GRDP, 2006).

5.2.3 Examples of how 'conventional economic projects' and/or projects that have no vertical environmental outcomes have been adapted or changed to reduce their carbon/environmental intensity

Carbon Neutral Development of Newquay Airport – Airport development with a focus on becoming operational carbon neutral by 2015 and totally carbon neutral by 2025

Newquay Cornwall Airport is a small airport within Cornwall that plays an important role in overcoming the regions peripherality and relative isolation. This approach to delivering a '**whole-project' approach to environmental sustainability**' is core to the Newquay Cornwall Airports development objectives, helps develop and embed environmental sustainability into non-ERDF funded programmes and investments, whilst also acknowledges that delivering environmental sustainability is a long-term and on-going objective. (Alex Huke, Regional Development Agency, South West) Further details available in [Annex 19](#).

ARCELOR MITTAL

(Provence-Alpes-Côte d'Azur, France) The aim of this project was to achieve a substantial reduction in atmospheric emissions from the Arcelor-Mittal facilities in Fos-sur-Mer by implementing innovative technologies to deal with ammonia stack effluent and reduce sinter emissions from the factory. Total cost: EUR 19.3 million, including EUR 2.4 million from the ERDF (DG Regional Policy, Regio Stars Awards 2009).

5.2.4 Examples of skills/education based projects that have a carbon literacy development.

Sustainability and Climate Change Awareness in the Kainuu Region – (Feasibility study, managed by the Oulu University, 2009)

The project will examine the current situation and development needs with reference to the Local Agenda 21 for Kajaani City Region. The objective is to study the needs of the local actors of cognitive, operational and communicational assistance in order to achieve the nationally and internationally set targets. Based on the analysis, themes and concrete actions will be proposed advance the achievement of nationally set energy and climate targets in Kainuu (Kainuu Regional Environment Centre, 2009-02-13).

Clim-ATIC - Adapting to the Impacts, by Communities in Northern Peripheral Regions

The overall objective of the project is to establish a sustainable advice and training service for community climate change adaptation across the whole of the Northern Periphery. The project will have a particular emphasis on identifying how climate change may bring opportunities for fostering the sustainability of communities in the Northern Periphery through local employment opportunities, social benefits, and environmental management. The Northern Periphery Programme 2007-2013 is part of the European Commission's Territorial Cooperation Objective (INTERREG IIIB) and is part-financed by the European Union and the European Regional Development Fund (ERDF). Participating countries are: Scotland, Sweden, Finland, Norway and Greenland (www.clim-atic.org).

Skills for Climate Change (co-funded by ESF)

The focus of this project is to increase the climate change skills of the local workforce within both the public and private sector; increasing access to learning and skills training for adults and take up of higher skills training by those in employment.

The project partners represent key strategic organisations that are integrally involved in defining what a low carbon economy means for Cornwall and identifying the skills and resources required to achieve it. Each organisation is a key stakeholder in the development of the **Cornwall Climate Change Action Plan** (3CAP), which is being led by Cornwall Council. Work so far in developing the 3CAP has already identified that public sector procurement can play a key role in both mitigating and adapting to climate change by including carbon requirements in specifications and tenders. This in turn will encourage 'supply chain' businesses to adopt carbon management standards within their business planning, processing and manufacturing.

The key objective of the project is to develop, test and deliver innovative approaches to increase the level of 'Carbon Literacy' within the workforce in order to develop the necessary capacity, skills and knowledge exchange to drive low carbon economic development.

Project activities will be developed and delivered according to the following four interlinked work packages –

- 1) Leadership and Procurement Management Skills for Climate Change
- 2) Procurement Skills for Climate Change
- 3) Skills for Low Carbon Supply Chains
- 4) Outreach and Dissemination (Alex Huke, Regional Development Agency, South West)

Key points

- Strengthening the EU resilience to the impacts of climate change will offer opportunities to invest in a low-carbon economy to deliver sustainable growth, jobs and competitiveness.
- New markets will be created in low-carbon energy technologies and other low carbon goods and services. These markets have good growth potential, and employment in these sectors will expand accordingly.
- Energy and climate change are key areas linked to several economic sectors and having an effect on the achievement of the Lisbon objectives. They are identified as one of the 12 priority areas for EU funded investments in the Community Strategic Guidelines.
- The vision of an environmentally-driven growth is central only for a few countries, e. g. Sweden – where it has been recognised as a motor for regional economic development. It is subsequently reflected throughout the OPs.

VI. CONCLUSIONS AND RECOMMENDATIONS

Based on the literature review, findings of the research and discussions within the Working Group the authors have come up with a set of conclusions and recommendations for the future. Recommendations follow the logic of the report. In brackets the authors have included a possible timeline of implementing the given recommendation as well as the main actor in charge of that.

General

- A combination of different approaches is needed in order to increase the integration of climate change into the Cohesion Policy Funds' projects. Intervention should come on programming level through the NSRFs and the OPs. However, the process of project selection should be carefully scrutinized to strengthen all elements in this direction from call for proposals (general announcements) through project preparation to scoring. Climate impact monitoring systems should be developed or, where available, further strengthened in order to inform the Project Managers of the actual impact of the funded projects. **[When: ongoing. Who: MS and MAs]**
- It should be kept in mind that 'best in class' or a 'good practice' might be good enough to limit the carbon impact of the projects and the programmes but might not be enough to contribute to significant reduction of the CO2 emissions. This is closely related to the level of ambition. For the time being, the starting point should be that the funds should be overall neutral but the goal should be much higher for the next programming period. **[When: ongoing. Who: MS and MAs]**
- Wherever, the Cohesion Policy Funds can be used for funding of carbon intensive infrastructure projects (e.g. road infrastructure projects in new MS) and in the cases where this is unavoidable, all other projects on a regional or national level should try to counterbalance the carbon impact. **[When: ongoing and post 2013. Who: MS and MAs]**
- Incorporating a strong climate change element into the projects should not be limited to projects with a specific environmental dimension under specialized environmental or energy OP as these projects should be climate proof by default. Integration of climate change issues in non-environmental projects (*see previous recommendation*) should receive central attention. **[When: ongoing and post 2013. Who: MS and MAs]**
- The European Commission does not yet place sufficiently strong and mandatory requirements to the Member States for limiting the carbon impact of the projects financed through community Structural and Cohesion Policy Programmes. Should these programmes efficiently 'deliver' not only carbon neutrality but also contribute to carbon reduction the EC must gradually make a shift from softer voluntary demands to the Member States to obligatory requirements. **[When: post 2013. Who: EC]**

- The guidelines provided in this report may equally apply to the agri-economic elements of Rural Development Programmes, such as the European Agricultural Fund for Rural Development (EAFRD). It is regrettable that these programmes do not recognise, in their regulations, environmental sustainability/SD and equalities in the same way that ESF/ERDF programmes do. [When: ongoing and post 2013. Who: MS and MAs]

Programming

- In some European countries climate change has gained momentum on the political and policy agendas only after the drafting of the programming documents for the period 2007-2013. Therefore the possibility for **mid-term revision of the programming documents** will be an excellent opportunity to enhance the climate change emphasis of the OPs and to include climate change per se. Prior to that MS should determine how Climate Change friendly their OPs are. [When: 2009-2010. Who: Member States]
- It is of utmost importance that the NSRF explicitly emphasizes the need to take climate change/environment into consideration in all funded projects. Climate change and especially the adaptation component should be addressed per se as it remains largely disregarded. If goals such as carbon neutrality are spelled out in the NSRF there are much bigger chances that further projects and measures will follow. The NSRF should also map the potential of climate change measures for economic growth and job creation to strengthen the case. As the economy is always higher on the political agenda, the description and definition of synergies between CC and economy might boost CC integration into CP. As a minimum NSRF should include linkages to other strategies such as the Climate Change Strategy and Adaptation Strategy. [When: 2009-2010 and post 2013. Who: Member States]
- The SEA process did not contribute sufficiently to strengthening environmental integration and even less climate change integration in the OPs at the time of their preparation. SEA is a tool with high potential. In order to avoid the situation where, in the future programming period, the EU funds will contribute to the increase of CO2 emissions it is necessary that all programming documents – NSFR and OPs - will be assessed by SEA, which would obligatory include also assessment of possible negative carbon impacts, assessment of adaptation and mitigation measures, etc. [When: post 2013. Who: Member States]
- In some Member States Regional Development Programmes are closely linked with the structural funds programmes, for instance providing for co-financing to the SF investments. There is an added value in adopting common governance of the state funds and the EC funds and streamlining the application and evaluation procedures with respectively increasing the degree of taking climate change into consideration. The added value comes mostly through ensuring complementary actions and in potentially lifting the bar for national projects to the level of EU projects. [When: ongoing. Who: Member States and MAs]

- Earmarking minimum funding shares for the key climate-friendly investments such as energy efficiency, renewables and sustainable transport will contribute to better reflection of climate change issues in the OPs. For the next programming period there should be earmarked funds for CC mitigation and CC adaptation within CP funds. [When: post 2013. Who: Member States]

Comentario [EB1]: GL: better: Link it to the national goals.

- In the case of OPs for environment and transport which include indicative lists of infrastructure projects it should be of high importance for the Member States to include only projects highly compatible with Climate Change policies in general and more specific requirements in particular. The EC may consider introducing minimum requirements to projects in the indicative lists and a further strengthening of the requirements to these projects, e.g. applying to them the principle of carbon neutrality. [When: post 2013. Who: EC and Member States]
- While still taking into account economic and social considerations of cohesion dimension the EC should restrict to the highest possible extent the financing of climate-damaging projects or where this is unavoidable the climate change and environmental requirements to these projects should be extremely high. [When: post 2013. Who: EC]

Climate proofing the project cycle

- The calls for proposals should contain minimum requirements for emission reduction in order to convey the right information and illicit the right approach from the project proponents. [When: ongoing. Who: MAs]
- There are examples of good application forms that guide the project proponents in incorporating the environment into the proposed projects. Dissemination of sample application forms may have an educating effect on the proponents. There is a further need for improving the quality of the application forms and including climate change mitigation and adaptation considerations as well. The application forms are one of the tools for educating the project proponents. There is a value added in adopting common application forms for national development programmes and EU funding (see recommendation on common governance). [When: ongoing. Who: MAs]
- In the project selection phase there are good examples of comprehensive checklists for ensuring integration of environment into the SF. They can serve as a good basis for incorporating climate change issues that are not tackled in detail. A good project selection tool can bring positive effects in terms of fostering climate change integration at project level and also strengthening the overall sustainability of the programme, especially if the climate change issue is not comprehensively tackled at programme level. [When: ongoing. Who: MAs]
- It is of high importance to educate the Managing Authorities and the project evaluators on the possibilities of including climate change considerations into the projects and on working with the project proponents in order to improve the quality of the project,

especially from a climate change/environmental point of view. There are examples of institutional innovations that are playing this role in an excellent way. This work is closely related to the need of an active and precise communication from the Managing Authorities to the project proponents and beneficiaries (*see recommendations on communication*). [When: ongoing. Who: MAs]

- At project level the integration of climate change can be strengthened by introduction of energy efficiency criteria for all financed projects and ensuring the systematic integration of energy-saving measures as well as renewable technologies into all projects where feasible. For example, energy information for each project can be obligatory in order to assess whether the project is climate negative or positive. [When: ongoing. Who: MAs]

Communication

- There is a need for raising awareness of project proponents with regards to integration of climate change into the projects. Awareness raising and encouragement in order to stimulate CC projects should be done on an early stage – before the project idea is fully formulated. [When: ongoing. Who: MAs]
- Dissemination of good examples could promote a better integration of climate change and stimulate projects with positive CC impact in other countries and regions. Not only positive examples should be disseminated but also less successful cases where some lessons could be learned. [When: ongoing. Who: EC and MSs]
- NGOs should be actively involved in the project selection process. One of the positive side effects is that they will get active education from the participation in the processes and therefore be able to contribute even more efficiently in the future and provide the often missing link with the civil society. It should be elaborated what the opportunities for NGO involvement are in order to see where synergies can be found. Although sometimes transparency may be problematic and slow down the process of selection, it is a necessity. [When: ongoing. Who: MS and MAs]

Monitoring

- There should be a stronger pressure from the EC to the Member States to measure the carbon impacts of the individual projects and programmes. The EC may facilitate the process of designing and adopting an efficient common tool for that purpose. The first steps of collecting project and programme level data should start during this programming period and should be significantly strengthened during the next programming period. [When: ongoing and especially post 2013. Who: EC and MS]
- For this programming period, the EC should require information from MS how current EU sources are contributing to CC – increasing CO2 emissions or decreasing CO2

emissions. All MS should try to start collecting data about the amount of CO2 emissions emitted through operational programmes. Even if the first data from MS will not be perfect, they should at least start to do first steps. (i.e use a tool such as NECATER) "Sector and regional programmes must be transcended by the principle of environmental, macro-economic and societal sustainability, and securing regional and social cohesion". **[When: current programming period. Who: EC and MS]**

- Some Member States would need a stronger signal for the implementation of Climate Change measures and this signal should come from the EU. Even though some MAs are already aware of the problem and would be willing to make their OP more climate friendly¹³, factors such as the centralized coordinating system, the complicated administrative funding system, the big interest in funding opportunities amongst applicants and the lack of financial and human resources make the voluntarily introduction of CC measures almost impossible. Indeed, the CC measures must be recommended or required by the EU and followed by the dissemination of positive and precisely described country examples, possible tools (e.g. checklist), indicators or effective monitoring system. **[When: current programming period. Who: EC and MS]**
- By the time of introduction of efficient project monitoring tools Member States should encourage self-evaluation by project proponents in order to formulate "lessons learned". MS and MA may also financial incentives for higher climate change integration in the project proposals. **[When: ongoing. Who: MS and MA]**
- For the next programming period it would be good to introduce an ex-ante tool for screening projects, based on climate change criteria. The tool would contain quantitative questions (e.g. how much CO2 tonnes per year emissions would increase or decrease as a result from the project) and thresholds that would have to be determined for different types of projects. In addition, thresholds could be determined for individual and all OPs which could be in turn synchronised with national CO2 (and other GHGs) emission reduction targets for a given period. **[When: post 2013. Who: EC and MS]**

Climate Change as an Economic Driver

- Member States should work on a paradigm change on all possible levels – political and business - and recognize that climate change will offer opportunities to invest in a low-carbon economy which will subsequently deliver sustainable growth, jobs and competitiveness. This would mean strengthening the vision of environment-driven growth. **[When: ongoing. Who: MS and MA]**
- Member States should support in all possible ways - including through Cohesion Policy spending - the creation of new markets in low-carbon energy technologies and other low carbon goods and services. These markets have good growth potential, and employment in these sectors will expand accordingly. **[When: ongoing. Who: MS]**

¹³ For example, in the Ministry of Environment a department of CC in which country? with five people has been set up recently, to make a national CC strategy and also to enhance the horizontal integration of CC issues

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ANNEXES

ANNEXES RELATED TO CHAPTER II

Annex 1: NSRF France

In France two thematic priorities in the French NSRF have an environmental and climate change dimension:

- Protect the environment, prevent risks, and adapt the energy practices in a sustainable development perspective;
- Develop transport modes different from the road for the individuals and the companies;

In order to promote a competitive and sustainable economy, it is needed to support the environmental innovations, to promote the renewable energy sources and the better management of natural resources. The final goal is to reduce the GHG emission by 4 by 2050 (Factor 4).

There is a political will to direct the ERDF and ESF funding towards the strategic Lisbon and Gothenburg themes. On a national level, 60% of the amounts dedicated to the 'convergence' programmes and 75% of the amounts dedicated to 'regional competitiveness and employment' programmes have to be spent directly on actions contributing directly to the implementation of the Lisbon Strategy.

The NSRF states that 'following the necessity to optimize funds and to contribute to reaching of the objectives of the Lisbon and Gothenburg Strategies, the partners have to fix in their Operational Programmes criteria and common objectives for the selection of projects.'

It is also specified in the NSRF that 'the projects funded from the Structural Funds have to fit in a sustainable development perspective considering the National Sustainable Development Strategy (NSDS) as a reference. The regions having suitable strategic instruments and complying with the reference framework (i.e. Agenda 21, National Parcs Charts, Climate Plans, etc.) will have priority access to funds.

The CPER has five intervention priorities. Priority 2 is 'reconquer the environment and preserve the natural heritage'. The first subpriority of Priority 2 (Silvia) is called 'Regional Climate Plan and Environmental Quality.' Here it is spelled out that the region is exposed to risks of submersion and water availability. Inundation risks are also present.

Therefore, a Regional Climate Plan has to be drafted to assure the management of natural and technological risks and to raise the awareness among all socio-economic actors

- maintain the environmental management, clean technologies and eco-design;
- improve and develop the environmental quality in the construction, the rehabilitation and territory management;
- encourage the source reduction of energy consumption, of raw materials and water;

develop regional chains of resource valorization and renewable energy stimulate the new practices and behavioral changes.

ANNEXES RELATED TO CHAPTER III

Annex 2: Thematic calls for proposal. Case study Finland

In 2008 the region of Northern Ostrobothnia applied the theme of 'Climate Change Adaptation and Mitigation' to a round of calls for proposals. The common application round was jointly organised by all financing authorities in the region. Funds administered by the regional environmental center of the Northern Ostrobothnia were allocated to the theme. The regional environmental center has an annual budget of 3-3.5 million EURO from the SF and approximately half of the yearly budget was available for CC projects. Four out of nine applications received were eligible for the theme. Two projects are being financed during 2009 (North Ostrobothnia Regional Environmental).

Dissemination of information of the thematic call is essential. It is needed to inform the relevant public about the call before it is launched as the time from start until the deadline often is short. In Northern Ostrobothnia advertisements of the call for proposal were included in the six largest newspapers and there are plans to include a leaflet in a regional daily newspaper as a channel for awareness raising. Rejuvenation of the city councils' staff which put the climate change on the agenda is declared as the reason for the strong emphasis of climate change in the structural funds program in Northern Finland (Lapland Regional Environmental Center).

Under the OP Southern Finland 25 % of the financing for the period 2007-2013, will be allocated to projects to be implemented under selected themes considered important for the development of the entire eligible area. Themes selected for financing are besides environment, technology, wellbeing, construction as well as themes aiming to networking between business and public sectors. The themes were applied to the first three priority axes, 'promotion of business', 'promotion of innovation and networking and strengthening of knowledge structures' and 'improvement of the accessibility of areas and the operating environment (Hämeen Regional Environmental Center). In addition, 20 % of the thematic budget will support the actions of other ongoing programmes, for example national technology policy or other EU programmes.

The environmental theme under the OP Southern Finland was launched in 2007. The call received vast interest from project applicants which has led to a re-opening of the environmental theme in 2010. Through continuous support of environment as a cross-cutting theme, it is expected that the share of environmental project will increase. The target in southern Finland is that 18.5 % of the total allocation of the Operational Programme should be allocated to environmental projects (Hämeen Regional Environmental Center).

Annex 3: Analyses on the Environmental awareness of the project
(Environmental Section for the Application Form for SF and CPER Funding in Nord-Pas de Calais)

In accordance with the 2001/41 – CE European Directive, environmental evaluations of the OPs and CPER were carried out. These evaluations make recommendations to reduce environmental impacts of financed projects and favor projects with high environmental awareness. The project guideline must identify and limit the environmental impact of the project and the project selection has to be carried out in accordance with the SEAs of the project.

Part 1 - Legal environmental procedures

The project proponent has to specify? the different legal environmental process that the project has to comply with during the implementation of the project. (European directive, law, impact studies, administrative procedure for registration, for authorization, project implementation in a Natura 2000 area)

Part 2 - Potential environmental impacts, correction measures and environmental monitoring indicators of project

The project proponent has to indicate here the potential environmental impacts of the project and the measures to avoid, reduce or compensate the negative effects. Can this table be presented on some concrete example of the project? The table slots would be filled in with focus on the project, just for illustration, how such table is used.

Challenges	Environmental impacts			Measures to avoid, reduce or compensate the negative impacts
	Description	Effect (positive, negative, neutral)	Importance	
Climate Change Mitigation (emissions)				
Biodiversity (preservation of natural areas)				
Sustainable land use				
Water Preservation (qualitative and quantitative)				
Natural risk management				
Technical risk management and Soil pollution				
Waste management (reduction and valorisation)				
Harmful or unwanted sounds in the environment (prevention and reduction)				
Environment as development factor				
Environmental awareness (eco - citizenship)				

Annex 6: Environmental Support Mission

There is a unique and very successful structure which exists in France (Nord-Pas de Calais) – **Environmental Support Mission (MAE)**.¹⁴ The structure was created in 2008, it is composed of one representative of the state and one representative of the region and its goal is to help integrate the environment as much as possible into the Structural Funds and the CPER. It is set up to respond to the priorities of the Lisbon and the Gothenburg agenda including sustainable development.

In France, like in all Member States, the environment is inbuilt in the Structural Funds and the CPER as a horizontal priority and the goal is to take the environment into consideration in an optimal way after identifying potential negative environmental impacts.

MAE was established to **assist primarily the project evaluation services (committees)**¹⁵ from the region and the state which have a key role for working with the project proponents in order to improve the projects.

The main rationale behind MAE's existence is the so called concept of **common governance of Structural Funds and CPER** and incorporation of the environment into all funded projects. MAE's main focus is **education**.

MAE's mission:

- **assist the project evaluation services:** inform or educate them on the environmental issues (through kick-off meetings, annual meetings, developing of guidance documents)
- **prepare and help strategic decisions:** help the evaluators with problematic applications in order to suggest environmental improvements.- The evaluation services are not obliged to take into consideration MAE's opinion but it actually happens in practice and there is a good cooperation between them.
- **prepare the monitoring documents:** monitor the taking into consideration of the environment through formal evaluation.
- **propose adaptations of the application forms for ERDF/CPER.** For the programming period 2007-2013, in Nord-Pas de Calais there is a single application for the EU Structural Funding and the CPER,

Factors of success: relative independence of the structure vis-a-vis regional and national structures. This gives the structure speed and flexibility.

Role of evaluation services (committees):

- clarify the environmental obligations for the project
- clarify the potential negative environmental impacts;
- potential correction measures;
- environmental indicators for monitoring of the project.

MAE has developed a guidance document on taking the environment into consideration in the Structural Funds and the CPER to be used by the project proponents. The document is divided by type of investments:

- investments into buildings and territory management operations;
- material investments; immaterial investments (knowledge, etc.);

¹⁴ Mission d'Appui de l'Environnement (MAE)

¹⁵ Services d'instructeurs

- | |
|---|
| <ul style="list-style-type: none">- infrastructure and transport;- investments linked to information technologies and communication. |
|---|

Annex 7: Austrian Conference on Spatial Planning , Austria

In Austria within the context of European regional and spatial development policies, the Austrian Conference on Spatial Planning - Österreichische Raumordnungskonferenz (ÖROK) plays an important role as the co-ordinating body between the internal and the European level. Apart from defining the status of the Austrian regions according to article 87 of the EC Treaty and co-ordination of the national break-down of EU Structural Funds, the ÖROK also drafts the Austrian National Strategic Reference Framework (NSRF) and strategic monitoring of its implementation. It also provides the secretariat for the Monitoring Committees for regional OPs for the Convergence and Regional Competitiveness and Employment objectives. ÖROK also supports the regions in programming, negotiations, monitoring and evaluations and closure of OPs. ÖROK also serves as the national contact point and coordination body for European territorial cooperation.

Austria has a flexible and efficient system for managing cohesion policy, which, in combination with sound national climate policy and legislation results with a relatively high presence of climate measures in regional OPs and their projects. Apart from strong national strategic, planning and legislative provisions for climate and sustainable energy, the administrative system in Austria provides the regions a choice how to comply with CP funds' rules on one hand and with climate and energy relevant national legislation on the other. Furthermore, the regional managing authorities use the right to outsource several different public companies (implementation authorities) to perform specific technical and/or financing parts of CP Funds managing. At the same time, the regions receive help in making such decisions from the national level, from ÖROK.

In the Burgenland region in Austria, communication and coordination activities related to CC and sustainable energy are jointly carried out by the **Managing Authority (MA)** and by the **Energy Agency (EA)** of Burgenland.

The Burgenland OP contains of two measures that are relevant for communication and coordination:

- Measure: "Sustainable Company Development".
- Measure: "PR, Information and Communication Measures"

The **first measure** (Sustainable Company Development) is directed at sustainable development including environmental protection and climate change proofing and it can be funded directly from the OP. However co-funding by national and regional funds is also applied (e.g. in the case of Climate Coaching). The EA has the role to attract co-financing for energy saving systems from the regional and national sources. For example, if a company decides to apply energy efficiency measures (within an OP Project) these specific measures will be funded by national and/or regional funds. The EA's role is to attract these funds by different means. Including the ones described in the second measure.

The **second measure** (PR, Information and Communication Measures) is more horizontal: First of all, it is not sectorally limited, but each implementing agency takes care of PR, information and communication within this domain. Thus, the EA (sometimes in cooperation with the MA) takes care of PR, information and communication activities in relation to sustainable energy and climate change proofing. These activities are often used to fund activities in the above described first measure. Secondly, the second measure cannot be funded from the OP. It is only funded from regional and national funds. However it has to be noted that these funds are sufficient and available to different agencies including the EA.

Thus, the EA is organizing and implementing awareness events as well as marketing and finding national and regional co-funding for renewable energy projects and energy saving systems and other climate-beneficial investments.

Apart from these "short-term" PR, information and communication activities there is a very good example of an entire project dedicated to education, information and communication for sustainable energy (with obvious implications to climate confidence of the region). Namely, a college (university degree) for

applied science (focused on sustainable energy) was established, in order to support the energy autonomy goal of the region of Burgenland. Since this was an entire project encompassing different measures from the OP, it was co-financed from ERDF (apart from national and regional funds).

Annex 8: Eligibility condition and priority criteria for ERDF-funded projects, France

Eligibility conditions

Description	Field
Mobile communication projects must incorporate an analyses on environmental impacts: <ul style="list-style-type: none"> • <i>Biodiversity: impact on corridors</i> • <i>Principle of participation</i> • <i>Landscape integration</i> 	Access to information
Projects must justify their minimal impact on the environment and put in place the correct measures regarding: <ul style="list-style-type: none"> • <i>Location for the platform</i> • <i>Urban sprawl</i> • <i>Pollution</i> • <i>Landscape Integration</i> 	Access to transport
For projects located close to sensitive areas, a justification of environmental acceptability is needed.	Access to transport
Project must fulfil at least three of the following criteria to meet the three pillars of SD (not included the environment related ones) <ul style="list-style-type: none"> • <i>Projects in a PDU / SCOT / DTA (???)</i> • <i>Reduction of greenhouse gases</i> • <i>Promotion of intermodal transport</i> • <i>Introduce a BILAN CARBON (carbon footprint measurement)</i> 	Access to transport
Buildings with High Energy Performance Brownfield investments has to ensure the security, conservation of buildings, protection of the environment	Business Development Business Development
Buildings only materials with a reduced risk of soil compaction	Competitive agricultural organization
Machines using biodegradable hydraulic oil and non eco-toxic materials	Competitive agricultural organization
Regional aid for buildings made of 100% wood	Competitive agricultural organization
The project must submit an action program on "environment - climate" over 3 years.	Environment, Risk Prevention
Natural heritage preservation projects must comply with local environmental conditions and ecosystem integrity	Environment, Risk Prevention
Wood resources exploitation should be conducted in accordance with the environmental quality (the resource must come from certified forests)	Environment, Risk Prevention
Renewable Energy projects: <ul style="list-style-type: none"> • <i>Positive environmental impact in terms of estimated energy savings and renewable energy production</i> • <i>Compliance with the existing biodiversity</i> • <i>Support forest recovery: taking into account the turnover of stock and the speed of rotation</i> • <i>Justification that the power generation facilities do not risks to air quality and increasing the degree of exposure to technological hazards "</i> 	Environment, Risk Prevention
The contracting authority must conduct an impact assessment that shows the project will not lead to degradation of natural habitats, prepare a note on landscape integration	Environment, Risk Prevention

The project has to provide an initial inventory of the environmental situation in the area of project implementation, a presentation of the expected positive environmental impacts, and compensatory measures for possible negative impacts and a description of his experience in the field.	Environment, Risk Prevention
Wood exploitation projects must meet at least three of the following criteria of SD (not included here a dozen of environmental criteria): <ul style="list-style-type: none"> • <i>Forest certification</i> • <i>Part of an SD Project</i> 	Environment, Risk Prevention
Buildings with High Environmental Quality (HQE) by implementing EMS or by raising the environmental quality	General
Innovations of SMEs: the actions financed must foster at least some issues, including the promotion of clean technologies or focus on environmental protection	R&D
High Energy Performance for new building and "D" level energy performance for renovated building	Services, Advisory, Training
Sustainable tourism by supporting sustainable transport modes or by implementing EMS	Tourism, Culture, University Equipment
The project proposal has to contain recommendations concerning waste, including DIB (industrial waste) and special wastes such as asbestos	Tourism, Culture, University Equipment
The project has to carry out study on the integration of HQE (High Environmental Quality) or HPE (High Energy Performance)	Tourism, Culture, University Equipment
Project that integrate energy efficiency, reduce environmental pollution, support better water or waste management, promote SCP patterns	Urban projects
Projects have to integrate: <ul style="list-style-type: none"> • <i>Urban strategy for sustainable development of the agglomeration</i> • <i>Approved planning schemes</i> • <i>Horizontal sustainable development aspects(with its different dimensions</i> 	Urban projects
Urban projects <ul style="list-style-type: none"> • <i>No project should contribute to urban sprawl</i> • <i>Taking into account the precautionary principle</i> • <i>SHE study</i> 	Urban projects

Priority criteria

Description	Field
Selection criteria for ICT projects: - <i>Consistency with the strategy of sustainable development</i> - <i>Commitment to continual improvement</i>	Access to information
Selection criteria for transport projects: <ul style="list-style-type: none">• <i>Existence and quality of feasibility studies that evaluate the economic, social and environmental impacts, as well as the governance of projects, demonstrating the incorporation of sustainable development.</i>• <i>Limiting artificialisation of natural areas and limiting the influence to an absolute minimum.</i>• <i>Use of clean energy</i>	Access to transport
Selection criteria: <ul style="list-style-type: none">• <i>Preservation of habitats</i>• <i>Increasing the share of renewables</i>• <i>Taking into account the principle of participation</i>	Agriculture
Selection criteria: <ul style="list-style-type: none">• <i>Positive territorial impact of the project (job creation, environmental quality, economic benefits for the area)</i>• <i>Use of clean technologies</i>• <i>Eco-innovation or renewable energy projects</i>• <i>Impact on SD, including the side effects of projects that may have impacts on the environment</i>	Business Development
Selection criteria for biodiversity projects: <ul style="list-style-type: none">• <i>Projects that meet the priorities of the National Biodiversity Strategy Projects</i>• <i>Projects outside Natura 2000 process</i>• <i>Projects encouraging the prevention of natural risks</i>• <i>Projects encouraging the reduction of primary energy consumption</i>• <i>Taking into account the principle of participation</i>• <i>Projects in line with the sustainable development strategy of the territory</i>	Environment, Risk prevention
Selection criteria for wood and agricultural biomass energy project :guarantee of local provision	Environment, Risk prevention
Selection criteria for solar projects: European approval of the equipment installed	Environment, Risk prevention
General selection criteria: <ul style="list-style-type: none">• <i>Avoid sensitive natural areas</i>• <i>Limiting artificialisation natural areas and limiting the influence to an absolute minimum.</i>• <i>Focus on Natura 2000 and ENS</i>• <i>Preservation of habitats</i>• <i>Preservation of biological diversity</i>• <i>Engagement to apply a territorial climate plan</i>	Environment, Risk prevention

Selection criteria for projects engaged to fight against global warming:	Environment, Risk prevention
<ul style="list-style-type: none"> • <i>Tonne of CO2 avoided</i> • <i>reduce emissions of greenhouse gases caused by the implementation of the project</i> • <i>energy and GHG impacts, exemplary aspect, strategic coherence</i> 	
Selection criteria for water Project: Priority to projects located in areas with high sensibility (heads basin, SAGE, capture critical areas in terms of water pollution ...)	Environment, Risk prevention
Selection criteria for waste projects: recycling should be prioritized	Environment, Risk prevention
Selection criteria for Energy Projects	Environment, Risk prevention
<ul style="list-style-type: none"> • <i>Positive energy performance ("BBE actions, QEB, Effinergie")</i> • <i>Reduced energy consumption</i> • <i>Optimization of the waste stream</i> • <i>Consistency with the strategy of sustainable development of the territory "</i> 	
Selection criteria Water and aquatic environment projects	Environment, Risk prevention
<ul style="list-style-type: none"> • <i>Reduction of water consumption</i> • <i>Reduction of discards</i> • <i>Taking into account the principle of participation</i> • <i>preservation of habitats</i> • <i>Prevention of natural risks</i> • <i>Long term values</i> • <i>Consistency with the strategy of sustainable development of the territory</i> 	
Selection criteria for projects with industrial risks:	Environment, Risk prevention
<ul style="list-style-type: none"> • <i>Preservation of habitats</i> • <i>Conservation of biodiversity</i> • <i>Optimization of waste streams</i> • <i>Application of valuation principles, long term care</i> • <i>Taking into account the principle of participation "</i> 	
Selection criteria for energy efficiency improvement projects of enterprises;	Environment, Risk prevention
<ul style="list-style-type: none"> • <i>Projects to improve energy supply</i> • <i>Project integrating the dimension of transport related to industrial production</i> • <i>TOE and CO2 avoided by the project</i> 	
Selection criteria for buildings:	General
<ul style="list-style-type: none"> • <i>Positive environmental performance</i> • <i>Use of renewable energies</i> • <i>Wood construction</i> • <i>Level of energy consumption / m²</i> • <i>Rainwater Management</i> • <i>Minimized nuisances (noise and smell)</i> • <i>Landscape</i> • <i>High environmental quality in the design of buildings, aimed at reducing energy consumption per m²</i> 	

<p>General Selection Criteria:</p> <ul style="list-style-type: none"> • Sustainable transport solution • Priority for projects with a positive impact on the environment • Going beyond purely regulatory obligations • Environmental management of project activities: eg environmental management system according to ISO 14001. • Projects that introduce a Bilan Carbon tool <p>Selection criteria for projects:</p> <ul style="list-style-type: none"> • Impact on SD, including the side effects of projects that may have impacts on the environment • eco-innovation or renewable energy project • ensure good environmental management activities or technologies developed vis-à-vis the major environmental issues in the region • Proper management of environmental impacts of the activity by setting up an environmental management system (such as Environment Business Plan developed by ADEME or ISO 14001) <p>Clean and efficient technologies should be encouraged:</p> <ul style="list-style-type: none"> • Respect for nature and biodiversity • Reduction of pollution on the environment (air emissions, greenhouse gas emissions, discharges into water, waste management) • Savings of water resources and energy <p>Selection criteria for research centers:</p> <ul style="list-style-type: none"> • Reduced energy consumption • Consistency with the SD Strategy • Commitment to continuous improvement • Application of valuation principles, long term care • Taking into account the principle of participation • Industrial risks prevention <p>Priority criteria that can be used:</p> <ul style="list-style-type: none"> • Economic development with respect of the natural environment and landscape • Projects promoting sustainable transport <p>Selection criteria:</p> <ul style="list-style-type: none"> • Feasibility study and evaluation on the costs of integration regarding "High Environmental Quality (HQE) and" High Energy Performance "(HPE). • Environmental consideration regarding the selection of materials, impact on the landscape and resources <p>The environmental impact of urban-development project will be assessed in relation to the following themes energy, water, waste, transport, noise, polluted sites and soils, biodiversity, flood and consumption of space.</p> <p>Selection criteria:</p> <ul style="list-style-type: none"> • Taking into account the principle of participation • Reduction of energy consumption • Project Consistency with the SD Strategy • Commitment to continual improvement 	General R&D R&D R&D Services, Advisory, Formation Tourism, Culture Urban development Urban development
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Awareness raising of the beneficiaries

SD questionnaire attached to the project application form (in order to taking into consideration the horizontal priorities)	General
Project application dossier must include:	General
<ul style="list-style-type: none"> • <i>Engagement in terms of sustainable development</i> • <i>The description of expected environmental benefits</i> • <i>Supporting documents for the justification of the effectiveness of implemented actions</i> 	

Financial Incentives for the beneficiaries

For research partnerships: 5% eco-bonus	
Increased rate of grant for:	
<ul style="list-style-type: none"> • <i>Renovations for increased energy efficiency</i> • <i>Encourage the development of programs for environmental research</i> • <i>Support innovation in the enterprise ...</i> • <i>Focusing on development projects that use clean energy and eco-design or implement environmental management "</i> 	R&D
Increased rate of grant	
<ul style="list-style-type: none"> • <i>Local actions for eco-development</i> • <i>For projects that use clean energy, eco-design or implement environmental management</i> 	Services, Advisory, Training
Increased rate of grant for projects:	
<ul style="list-style-type: none"> • <i>With HQE / HPE</i> • <i>To use wood for building construction</i> • <i>To reduce energy consumption or use of renewable energy</i> • <i>To reduce impacts related to waste</i> • <i>To reduce water consumption, pollutant emissions</i> • <i>To introduce environmental management of rainwater</i> • <i>To integrate sustainable land management</i> • <i>To integrate landscape aspects</i> • <i>To reduce of emissions generated by transport</i> 	Business Development R&D Tourisme, Culture
Feasibility studies (regarding ecological, economic and landscape impacts) are eligible for funding	Agriculture
Increase of 5% of grant to any firm that participating in a process of sustainable management, PEFC type, FOREST-QUALITY ...	Agriculture
For rural projects, an increased aid will be given for achievements with at least 3 HQE criteria	Services, Advisory, Training
Priority to projects that offers monitoring of SD impact	Business Development

Annex 9: Eco-conditionality and eco-compatibility (France)

The regional measures on taking the environment into consideration (collected by DIACT)¹⁶ are divided into criteria (eco-conditionality) and recommendations (eco-compatibility). In the case of eco-conditionality if the project does not comply with criteria it is not selected: Eco-compatibility is a bit softer and there the projects which comply with the priority criteria have an advantage.

Field	Concerned object	Type of action	Moment of intervention
- Accessibility – information systems - Accessibility – transport - Competitiveness and agriculture - Enterprise development - Environment – risk prevention - Urban projects - R&D innovation - Services, education - Tourism, culture	- Immaterial actions - Residential - Residential out of the building	(Type 1) Eligibility criteria (25%) (Type 2) Recommendations 2.1. – Priority criteria (29%) 2.2. – Awareness raising among the project proponents (3%) 2.3. - Environmental assessment of the proposal 2.4. – Monitoring of the efficiency of the actions/alert indicators (Type 3) Incentive (additional funding) (11%) (Type 4) Compensatory measures (beneficiary carries out compensatory actions, i.e. planting trees)	- project development (48%) - project development + follow up monitoring (1%) - project evaluation (39%) - project evaluation + monitoring at the end of the project (12%)

The strength of the measure depends on the type of action. Type 1 Eligibility criteria being the strongest. In most cases the eligibility criteria and priority criteria are drafted on the basis of the SEA recommendations. They are checked at the moment of project evaluation.

From the assessment it became clear that implementing priority criteria for selection of projects is the most common approach (29%), closely followed by eligibility criteria (25%). Regarding the moment of intervention most of the practices are focused at the moment of project development (48%) and project evaluation (39%). However, there are a number of practices focusing on the moment of the project completion.

¹⁶ Délégation inter-ministérielle à l'aménagement et à la compétitivité du territoire : inter-ministerial delegation for regional planning and competitiveness.

Annex 10: The checklist for assessment of project proposals in Finland

The following guidance and form are incorporated into the EURA 2007 information system.

The attached form is used by the applicant to assess the environmental impacts of a project proposal. The potential impacts are marked using the symbols ++/+/0/-. The assessment concerns all projects and should indicate whether a project is:

Environmentally neutral: 0

Environmentally beneficial: + (minor beneficial effect) or ++ (significant beneficial effect)

Environmentally harmful: – (minor adverse effect)

Impact	++/+/0/-	Description
1. Impact on Climate change		
Improving Energy Efficiency		
Increasing the use of renewable energy		
Mitigating the risks of climate change		
Reducing the amount of fossil CO2 emissions		
2. Impacts on emissions		
Water		
Soil		
Air		
3. Impacts on production and consumption		
Reducing the amount of waste		
Waste re-using and recycling		
Energy and material efficiency		
Use of local renewable raw materials and services		
4. Impacts on the natural and built environment		
Landscape		
Cultural environment		
Biodiversity		
Natura 2000 sites		
5. Impacts on people		
Living conditions and the attractiveness of living areas		
Health		
Safety		
6. Impacts on traffic		
Curbing the increase of private car traffic		
Reducing the need of shipping		
Improving logistics		
Share of public transport and pedestrian traffic		
7. Impacts on research and training		
Environmental Technology		
Use of environmental management systems		
Environmental knowhow and awareness		

Annex 11: Additional sheet supporting definition of environmental assessment criteria and sustainable development of the Southern Finland OP

ERDF, Regional Competitiveness and Employment Objective 2007 – 2013

The selection criteria of the interregional projects, priority axis 5, The environmental impacts of the project

The environmental impacts of the project:

- a) Promoting environmental knowledge, awareness and governance of environmental management systems
- b) Impacts on consumption, production and energy efficiency and emissions, traffic and mitigation of climate change
- c) Well-being factors of society and environment that shall be promoted

Definitions:

- a) Promoting environmental knowledge, awareness and governance of environmental management systems

Promoting of increasing of environmental knowledge and creating growing possibilities for environmental knowledge and promoting the development in environmental management systems of different actors. Supporting and raising awareness of environmental responsibilities and development of environment-friendly ways of actions.

- b) Impacts on consumption, production and energy efficiency and emissions, traffic and mitigation of climate change

Supporting of actions that have impact on deduction of the amount of waste, energy saving and usage of local services and renewable raw materials. In all actions and doing energy- and material efficient and low emissions are criteria in order to eliminate climate change. That means in practice:

- avoiding actions, that will lead indirectly to growing consumption of electricity and private car driving.
- promoting actions that decrease the need for transportation, the growth in proportion of mass and light transport.

- c) Well-being factors of society and environment that shall be promoted

1) Promoting good and safe environment

Quality of housing, communities, and developed regions will be improved by material and energy efficiency. Existing infrastructure will be taken advantage in first priority, minimizing emissions and taking into account perception of pleasant, safe and health factors plus landscape and culture values.

2) Protecting biodiversity

Unity of natural areas will be secured in all nature reserves and areas of Natura 2000 and other conservation areas and valuable nature in general and endangered and rare species will be taken cognizance. Ecological connections will be promoted and protected between conservation areas and other valuable natural areas.

3) Preventing environmental hazards

It will be ensured that emissions to lakes, rivers and groundwater, soil, atmosphere and noise problems will not increase. Environmental risk management and preventing actions will be promoted. Advancing good chemical and ecological state in waterways steps will be taken in combating eutrophication and degradation of the state of surface water will be prevented. Water supplies of communities in important ground water areas will be secured and safekept.

4) Promoting living conditions

Environmental skills, own activityof whom- project applicant? Local community? , voluntary change to more sustainable and environment-friendly production and consumption and working conditions will be supported. Different population groups special needs will be taken into consideration. Close surroundings to the housing area and centres will be developed and the utilization of recreation and natural areas will be promoted. Training programmes will be developed so that besides informational targets ecological and other people's better taking awareness will be also a target and put into action. Interactive planning and development methods are taken in practice so that value – what is value discussion?discussions will be carried out. Inhabitants' possibilities for participating in community planning and decision-making of their environment will be promoted.

These criteria a), b) and c) can be used as definition for compulsory criterion "Sustainable development", when the definitions of criteria a) and b) and the paragraphs 1) -4) with explanation of criterion c) are taken into consideration and put into action.

Annex 12: Guide for ensuring the integration of the horizontal priority Environment (Sweden)

A guide¹⁷ supporting project owners and desk officers in selecting and enhancing environmental aspects of the SF projects has been developed by Swedish Environmental Protection Agency on behalf of the national managing authority. In particular, it is support project owners of projects related to environmental technology, energy production, energy efficiency and thus climate change mitigation. However, no explicit reference is made to climate change adaptation. The guide has been widely accepted and is used by the majority of project proponents. It asks concrete questions that provides for clear answers and enables evaluations. The guide represents an awareness raising effort aimed at stimulating greater environmental awareness among both project proponents, managing authorities and selection committee. As it is not a detailed document, the guidelines provided function more as inspiration for ideas.

By the implementation of the guide, the analysis of the replies have been increased and being presented to the monitoring committee. If negative aspects are determined the applicant is requested to amend and extend the application.

The three dimensions of sustainable development (economic, social and environmental) are taken into consideration in all implementation stages of a project. Three horizontal priorities are developed, among them the environmental priority¹⁸. The projects impact on the horizontal criteria will be assessed.

Applicants to the structural funds are obliged to describe the impact of the project on the horizontal priority/criteria in the application form, responding to four compulsory questions:

- *What are the environmental objectives of the project?*
- *What activities are planned in order to achieve the environmental objectives of the project? (The activities should be included in the planned measures.)*
- *What effect does the result and impacts of the project have on the environment?*
- *Does the project have any impact on Natura 2000 areas?*

In addition a number of questions included in the guide acts as guidance for the formulation of the project application and for responding to the questions above, such as:

- Will the activities that the project is expected to result in lead to emissions of CO2 or other green house gases, emissions of toxic substances, waste, eutrophication, noise, impact on the biodiversity? If yes, describe how.

The information provided in the application will be followed up in progress reports during the implementation of the project.

Currently, there is no vision of making the criteria stricter, e.g. in terms of climate change. At this stage, the priority is to increase the 'integration' of the program itself and establish a closer cooperation with the companies (Swedish Agency for Economic and Regional Growth).

¹⁷

<http://www.tillvaxtverket.se/huvudmeny/euprogram/ansokaomprojektmedel/handledningforifyllandeavprojektansokan/kapitelhandledning/11horisontellakriterier/guidemiljoaspekternaiprojektet.4.21099e4211fdb8c87b800016806.html> (only in swedish)

¹⁸ The three horizontal priorities are environment, equality and integration and diversity.

Guides: Horizontal criterion: The environmental aspects of the project (Sweden)¹⁹

Version 2008-06-24

Introduction

When implementing the regional structural funds programmes, the three dimensions of sustainable development, the economic, social and environmental, will be taken into account in all implementation phases. Contribution to sustainable development is a key subject matter in Sweden as well as in the EU.

Each project, implemented within the programme, can not be expected to be positive with respect to all dimensions of sustainable development. However, consideration should be made to the general objectives and priorities should be made in order to ensure that the overall development could be sustainable. A sustainable society shall meet the needs of the present without compromising the ability of future generations to meet their own needs.

Guide: The environmental aspects of the project

Applicants for project funding from the regional structural funds programmes are requested to describe how the project will impact the environment.

This is a guide for applicants filling in the application form. The four first questions shall be addressed in the project application form. The additional questions function as assistance in the formulation of considerations of environmental aspects. The majority of the questions are relevant to all projects. Certain questions are relevant for specific kinds of projects. Have in mind that what is stated in the application will be followed up in the reporting.

Answers to the four questions below shall be included in the project application

- What are the environmental objectives of the project?
- Which activities are planned in order to achieve the environmental objectives of the project? (the activities should be included in the activity plan)
- What is the environmental impact of the results of the project?
- Does the project have any impact on Natura 2000 areas?

The questions below acts as guidance for the formulation of the project application and for responding to the questions above

All projects

- In what way will the environmental operations be structured within the project and in the activities that the project is expected to lead to (e.g. environmental policy, environmental management systems)?
- How will the project lead to more efficient use or increased recycling of energy, natural resources, water and other material within the project and in the activities that the project is expected to lead to?

¹⁹ Translated by the authors from Swedish to English

- Will the activities that the project is expected to result in lead to emissions of CO2 or other green house gases, emissions of toxic substances, waste, eutrophication, noise, impact on the biodiversity? If yes, describe how.
- How will the project lead to an increase of environmentally friendly travel, housing and restaurants/meals be encouraged/stimulated?
- How will the project contribute to the achievement of national or regional environmental objectives?
- How will the project lead to increased environmentally friendly transport and transport systems (public transport, renewable fuels, bicycling lanes, etc.)?
- How will the project lead to decreased needs of transport (e.g. through better planning, infrastructure or increased use of IT-technologies)?

Questions for projects within innovation and renewal (including entrepreneurship, cluster/partnership, environmental and energy efficiency or technical/organisational methods)

- Will the project lead to an increase of the number of environmental-technology companies and/or lead to an increased application of environmental technology in existing companies?
- Will eco-innovative products or services be used/promoted?
- In what way will the value of experience of the natural environment, cultural environment or other environments be increased?

The applicants assessment of the project (this assessment shall be included in the project application form)

Only one alternative to be selected

- Directly aiming at improving the environment
- Has a predominantly positive impact on the environment
- Has a predominantly negative impact on the environment

Explanation to the assessment criteria

Directly aiming at improving the environment - Improved environment is one of the main objectives, which is clearly reflected in the stated activities, objectives and expected results.

Has a predominantly positive impact on the environment – The impact of the projects on the environment is presented in the project description. The project is expected to have a predominantly positive impact. Several activities in order to improve the environment will be carried out in the project.

Has a predominantly negative impact on the environment – The impact of the projects on the environment is presented in the project description. The project is expected to have a predominantly negative impact. The project includes activities in order to minimise the negative impact.

Definition

Natura 2000 is a network of natural habitats most worth preserving in the EU and is one of the most important measures for preserving biodiversity. The member states shall nominate bird protection areas and other wildlife areas or natural habitats. In Sweden, Natura 2000 areas are protected with the support of the environmental protection act and is categorised as a national interest. Sweden has (in December 2007) 4 063 Natura 2000 areas.

The natural environment or the nature is the external environments free from human impact(comparatively). The notion of natural environment is very wide and includes natural environments with flora and fauna both on land and in water as well as bedrock, layer of earth surface and ground water and air. Landscape scenery and cultural environments can be included, as well as natural environments in the vicinity of urban areas.

The cultural environment is the environment that has been formed by human activities over time. It ranges from a single area or building to entire landscapes.

Environmental management is a method aiming at creating systematic and efficient environmental operations of businesses or authorities. The method leads to target-oriented environmental operations that follow a structure which puts the activities in a holistic perspective. An environmental management system assists companies and authorities to direct the environmental activities to efficient implementation.

ANNEXES RELATED TO CHAPTER IV

Annex 14: SEA Monitoring System in Austria

Questionnaires

Air + Climate

Category: 01-04, 07, 52, 59, 61 (investment measures)

Question project dimension:

- Total costs
> 350.000

Indicator: Development of air pollutants

Sub question 1: Does your project lead to an increase / decrease of the use of fossil energy resources (oil, natural gas, coal ...)?

- Answer: Increase
 Decrease
 No changes
 not applicable

Sub question 2: Does your project lead to changes of emissions of following air pollutants?

- CO2 Increase
 Decrease
 No changes
 not applicable
..... Please insert the tons of CO2-equivalents/year, if available
- SO2 Increase
 Decrease
 No changes
 not applicable
..... Please insert the tons SO2/year, if available

- NOx Increase
 Decrease
 No changes
 not applicable
..... Please insert the tons of NOx/year, if available

- PM 10 Increase
 Decrease
 No changes
 not applicable
..... Please insert the tons of PM10/year, if available

- Others: Increase
 Decrease

- No changes
 - not applicable
- Please insert the tons/year, if available

Noise Increase
 Decrease
 No changes
 not applicable

Smell Increase
 Decrease
 No changes
 not applicable

Question project dimension:

- Total costs
< 350.000

Sub question 1: Does your project lead to an increase / decrease of the use of fossil energy resources (oil, natural gas, coal ...)?

Answer: Increase
 Decrease
 No changes
 not applicable

For the Category 06, 39-43 (investment measure) additional

Sub question 2: Does your project lead to changes of emissions of following air pollutants?

CO2 Increase
 Decrease
 No changes
 not applicable
..... Please insert the tons of CO2-equivalents/year, if available

Energy, resources, mobility I

Category: 01-03, 06 07, 11, 14, 15 (investment measures)

Question project dimension:

- Total costs
> 350.000

Indicator: Increase of efficiency in production-, service- and mobility-systems

Sub question 1: On which level is your project located

Answer: research and development (including infrastructure)
 Market introduction (including pilot projects)

- Market replication of products, processes, services

Sub question 2: Do you expect changes in the energy and resources efficiency?

- Answer:
- Decrease of emissions of air/water/soil per production unit
 - Decrease of waste per production unit
 - Decrease of energy per production unit
 - Decrease of resources per production unit
 - Increase of the life span of the product
 - Other effects
 - No effects at all

Sub question 3: Do you expect direct or indirect changes on the mobility-systems?

- Answer:
- Increase of efficiency/sustainability of the transport of goods
 - Increase of efficiency/sustainability of the transport of persons
 - Increase of street traffic of goods (including noise emissions)
 - Increase of street traffic of persons (including noise emissions)
 - No effects at all

Question project dimension:

- Total costs
< 350.000

No further questions

Energy, resources, mobility II

Category: 04 (investment measures)

Indicator: Increase of efficiency in production-, service- and mobility-systems

Sub question 1: On which level is your project located

- Answer: research and development (including infrastructure)
 Market introduction (including pilot projects)
 Market replication of products, processes, services

Sub question 2: Do you expect changes in the energy and resources efficiency?

- Answer: Decrease of emissions of air/water/soil per production unit
 Decrease of waste per production unit
 Decrease of energy per production unit
 Decrease of resources per production unit
 Increase of the life span of the product
 Other effects
 No effects at all

Sub question 3: Do you expect direct or indirect changes on the mobility-systems?

- Answer: Increase of efficiency/sustainability of the transport of goods
 Increase of efficiency/sustainability of the transport of persons
 Increase of street traffic of goods (including noise emissions)
 Increase of street traffic of persons (including noise emissions)
 No effects at all

Energy, resources, mobility III

Category: 08, 09, 16, 26, 30 (investment measures)

Question project dimension:

- Total costs
 > 1.000.000

Indicator: Increase of efficiency in production-, service- and mobility-systems

Sub question 1: Do you expect changes in the energy and resources efficiency?

- Answer: Increase of energy efficiency (new. Heating, insulation...)
 Increase of resources efficiency including decrease of waste
 Decrease of emissions in air, water, soil
 Other effects
 No effects at all

Sub question 2: Do you expect direct or indirect changes on the mobility-systems?

- Answer: Increase of efficiency/sustainability of the transport of goods
 Increase of efficiency/sustainability of the transport of persons

- Increase of street traffic of goods (including noise emissions)
- Increase of street traffic of persons (including noise emissions)
- No effects at all

Question project dimension:

- Total costs
< 1.000.000

No further questions

Energy, resources, mobility IV

Category: 39 – 43, 52, 57, 59 – 61 (investment measures)

Question project dimension:

- Total costs
> 350.000

Indicator: Increase of efficiency in production-, service- and mobility-systems

Sub question 1: Do you expect changes in the energy and resources efficiency?

- Answer: Increase of energy efficiency (new. Heating, insulation...)
- Increase of resources efficiency including decrease of waste
 - Decrease of emissions in air, water, soil
 - Other effects
 - No effects at all

Sub question 2: Do you expect direct or indirect changes on the mobility-systems?

- Answer: Increase of efficiency/sustainability of the transport of goods
- Increase of efficiency/sustainability of the transport of persons
 - Increase of street traffic of goods (including noise emissions)
 - Increase of street traffic of persons (including noise emissions)
 - No effects at all

Question project dimension:

- Total costs
< 350.000

No further questions

Annex 15: Selected international, national and regional practices for monitoring environmental sustainability (including monitoring approach adopted in previous EU Programmes)

HM Treasury Green Book

The document acknowledges that the valuation of environmental costs and benefits is constantly evolving. With regards to climate change the Green books covers the following areas:

- Green House Gas Emissions (acknowledges that there is no standard methodology, emissions should be expressed in terms of carbon savings, or in terms of additional emissions. In cases where quantification of climate change is impractical an assessment of whether the policy is likely to increase or decrease emissions should be assessed. Social damage cost of carbons – monetary value – should also be considered)
- Vulnerability to the impacts of climate change (linked to UK Climate Impacts Programme (UKCIP), help assess risks and uncertainties posed by a changing climate and a methodology for costing the impacts)

UK's Sustainable Development Framework

UK's Sustainable Development Framework provides several indicators concerning greenhouse gases emissions per capita and CO₂ emissions from the burning of fossil fuels and energy used per capita along with percentage of renewable in total energy supply. Regional Sustainable Development Framework monitors total CO₂ emissions and emissions per head, CO₂ emissions by end user. South West sustainability operating principles support energy and resource efficiency and wider incorporation of renewable energy; thriving of low carbon economy through innovation, enterprise and economic development; reduction of high-carbon travels and long-term approach regarding mitigation and adaptation to climate change. Local Area Agreement Environmental Performance Indicators to be reported by local authorities include: CO₂ reduction from local authority operations, per capita reduction in CO₂ emissions in the local authority area, fuel poverty tackling in homes with low energy efficiency, climate change adaptation and management of flood and coastal erosion risks.

South West Regional Sustainable Development Framework

To achieve the South West's sustainability mission a set of practical sustainability 'operating principles' have been developed for the region. These translate the UK's sustainable development strategy into a south west regional context. The framework provides ten sustainability principles should be applied across all areas of activity in the region in order to achieve the regional and national sustainable development objectives. The following principles refer to climate change:

Be resource wise: Cut consumption of resources and adopt high energy, water and resource efficiency at home and at work; maximise the use of local, renewable energy; minimise waste and prevent pollution
Support thriving low carbon economies: Boost competitiveness, business markets and employment opportunities by supporting a low carbon approach to innovation, enterprise and economic development in ways which meet local workforce needs eg local renewable energy, sustainable construction and renovation, environmental technologies and local/regional supply chains

Reduce high carbon travel Use, promote and plan for low carbon access/travel eg walking & cycling, home-working, mobile services, ICT/video-conferencing, online facilities, local multi-service centres, demand-responsive public transport and alternative fuels

South West Regional Environment Strategy

South West Regional Environment Strategy Action includes specific climate change actions such as review of the key regional strategies:

- to identify the extent of inclusions of adaptation and mitigation measures to climate change; incorporate these issues into Regional Spatial Strategy and Local Development Frameworks;
- raise awareness of climate change issues in community planning processes;
- develop regional and sustainable energy strategy and sub-regional energy plans;
- undertake landscape sensitivity assessment at the country level to provide support to sub-regional renewable energy targets;
- develop Regional Woodland and Forestry Framework to create strong mitigation and adaptation effect to climate change;
- establish a Program Management Unit from SWCCIP to create a hub of expertise on climate change adaptation ion the region;
- investigate impacts of climate change on nature conservation efforts and develop specific adaptation strategies to help to survive priority species and habitats in the South West.

Annex 16: French Tool for monitoring carbon performance of a set of regional projects funded by the SFs and the CPER

NECATER

DIACT has developed a tool together with the consultants Energie Demain and with the support of a Steering Group comprising of DIACT, MIES (inter-ministerial study group for greenhouse gases), ADEME²⁰ (Environment and Energy Agency), the Ministry of Environment, Energy, Sustainable Development and Territory Management²¹ the Ministry of Economy, Industry and Employment²². The tool is offered to the regions free-of-charge so that they can use it to measure their position vis-a-vis the carbon neutrality. The tool is suitable only for climate change mitigation projects.

The tool is based on several factors linked to initial hypothesis:

- **Job creations per sector** – this is the effect of structural funds on employment. It allowed the development of ratios and references later translated into carbon emissions, based on the fact that a job creates added value, economic activity and additional transportation, which in turn creates GHG. Data comes from the already available evaluations of employment and its impact on carbon emissions (EUR – employment – carbon added value through transportation)
- **State of the region** – as each region is unique, the social and economic development of the region through the demography and the added value of each economic sector have to be taken into consideration. Data comes from the already available statistical data.
- **Structural data** - available through national statistics: transport flow per means of transport, size of vehicle fleet, size of the region, infrastructure, housing typology, local weather conditions, etc.

The carbon impact evaluation tool can be used in 2 phases:

- 1 – First, it serves as an initial evaluation of the CPER at the negotiation stage (macro analysis, based on the detailed list of LOLF²³ programmes eligible expenditure).
- 2- It allows the continuous monitoring of carbon emissions of operations financed by CPERs or European Operational Programmes.

There are currently 3 applications of the tool:

1- A tool to support the decision-making process during the negotiation of CPERs :

It is an easy to use and relatively conclusive tool aimed at supporting decision-making. It measures much better the whole set of projects in a region and it is not sufficiently precise for individual projects. The results of the evaluation will be taken into consideration at the mid-term revision of the CPERs.

2- A tool to evaluate greenhouse gas emissions of CPERs and the OPs:

This tool supports the continuous monitoring of the carbon performance of the projects (throughout their life cycle) and the regions as a whole vis-a-vis the carbon neutrality objective:

²⁰ Agence de l'Environnement et de la Maîtrise de l'Energie

²¹ Ministère de l'Énergie, de l'Énergie, du Développement durable et de l'Aménagement du territoire

²² Ministère de l'Economie, de l'Industrie et de l'Emploi

²³ Loi organique relative aux lois de finances : Law on public finances

The “carbon evaluation tool” has been adapted to the PRESAGE system²⁴, which is already used for the management of European programmes and CPERs. That means that the “carbon evaluation tool” will use the information on each operation that is systematically fed into the PRESAGE system obligatorily: adapted EC regulations, financial figures, more precise physical indicators (such as jobs directly created by projects, m² built or renovated) that allows a better assessment of emissions.

It is of utmost importance to establish a good link between the NECATER and PRESAGE in order to refine the hypothesis.

The tool then applies calculated ratios to these data and links the investments to carbon emissions throughout the implementation of the projects and throughout their life (i.e. 50 years for the big infrastructure projects).

3- A tool for the environmental monitoring of the CPER and OP

The CPER and ERDF projects modify the state of every region so NECATER helps quantify the state of the region before the 2007-2013 programme and after it.

The evaluation tool of greenhouse gas emissions will monitor the environmental impact of OPs and CPERs in terms of greenhouse gases. DIACT offers a ready to use tool that complies with the environmental impact assessment requirements of the Strategic Environmental Assessment Directive (2001/42).

²⁴ The PRESAGE software was developed for the 2000-2006 period for the monitoring of Structural Funds and CPER. DIACT is in charge of it. There is an updated version for the 2007-2013 period. The European Commission was closely involved in the development of the tool.

http://presage-info.org/no_cache/accueil.html

Annex 17: Reducing Carbon Impact on Investments: Climate Change Escalator Initiative, UK

In 2007 the South West RDA has launched its special initiative aimed at significant reduction of the carbon impact of investments based on year to year improvements in order to achieve zero impact in five years. Currently operating principles are under development to achieve a net zero carbon annual investment portfolio by 2013. The Energy White Paper published in 2007 specifically committed the RDA to set carbon reduction targets in the Corporate Plan and annually estimate and publish carbon saving estimates of policies and programmes introduced by 2010 and 2020.

A special carbon bank balance is created to manage investments in projects with a negative carbon impact leading carbon balance into deficit and investments in projects with a positive carbon impact contributing to overall impact and taking carbon balance into credit. It is intended that a net zero carbon annual investment portfolio is achieved by 2013 with the following programme:

2008/2010 – Low Carbon Investment Portfolio

During the first two years sustainable construction standards will continue to be applied as well as investments into carbon saving activities such as business resource efficiency advice. From April 2008 to March 2009 carbon credit and deficit projects will be tested to elaborate a set of operating principles, assess availability and applicability of methodologies for measuring the carbon footprint of the projects. The reason behind is to a period of learning required to move from low carbon investment portfolio to a net zero portfolio.

During year two (April 2009 – March 2010), the methodology will be further developed and other project types will be tested to see if they are suitable for incorporation into the escalator. We will the carbon footprint of ‘applicable projects’ will be measured and efforts will continue to drive down their carbon footprint to achieve a low carbon outcome across the investment period.

2010/2012 – Transition to a Net Zero Carbon Investment Portfolio

Towards the end of the current Corporate Plan period and during the following year (April 2010 – March 2012), the carbon footprint of ‘applicable projects’ will be further reduced, but the carbon bank balance will be available to inform investment decisions. With the understanding of the financial headroom the carbon headroom will also become a considering factor.

Although it was initially anticipated that this period would be carbon neutral, ‘offsetting’ the carbon impact by investing in carbon saving projects outside of the Corporate Plan, through further consideration it has been decided that a carbon balance will be achieved by intensifying investment in carbon saving projects within the Corporate Plan. So, if some projects take the carbon balance into deficit, the investment in carbon saving projects the RDA is already supporting will be intensified, moving towards a carbon balance and ensuring a very low carbon outcome.

2012/2013 – Net Zero Carbon Investment Portfolio

Net carbon impact across all “applicable projects” in the South West RDA investment will decreased to zero through reduction of carbon footprint of investments and investing largely in carbon saving projects. Carbon bank balance will become the major factor to consider taking investment decisions.

Panel of experts will be established in the nearest future to develop operating principles, monitor and report progress and engage stakeholders and community. It is planned to incorporate climate escalator

into Business planning and appraisal procedures and Environmental Management Systems applied in the region. Technical skill needed will be identified, common methodology for carbon footprint assessment of investment will be agreed with DEFRA, the Science and Industry council, other RDAs. Intensive awareness rising and training will be given internally and externally to all parties involved.

Sustainable construction requirements

The Convergence and Competitiveness Operational Programmes give strong regard to the use of high standards of sustainable construction methods and energy efficiency within capital builds of both Programmes. This sustainability standard is to be largely achieved in the majority of capital builds through achieving a BREEAM Excellent rating. The delivery of BREEAM Excellence is required given the understanding that this will improve the overall efficiency of the building, its long-term economic resilience (to changing energy prices, client expectations etc), its future proofing against new legislation and regulation and through assisting the stimulating the demand for new sustainable build materials, services and technologies. More information about BREEAM requirements and the process is provided in **Annex 1**.

South West RDA Commercial building guidelines

South West RDA guidelines regarding commercial building require that the financed projects should ascend the Carbon Escalator policy as following: be low carbon from 1 January 2008 to 31 December 2010 (44% improvement in CO₂ emission should be made compared to 2006 benchmark); carbon neutral from 1 January 2010 to December 2011 (100% improvement in CO₂ emission should be made compared to 2006 benchmark); zero carbon from 1 January 2012. Construction sites should meet and exceed the draft Regional Spatial Strategy Policy RE5 regarding on site renewable energy generation. Sites also should be designed to achieve highest adaptability levels to meet climate change challenges. Feasibility study should be carried out regarding opportunity to provide space, infrastructure and technologies for installation of photovoltaic and solar thermal equipment and on site or remote energy generation at a macro and micro scale.

ANNEXES RELATED TO CHAPTER V

Annex 18: European Technology Centre (EEE) in Güssing, Burgenland

European Cohesion Policy investment is helping Burgenland to develop cutting-edge technologies in the renewable energy sector. EU funding was an essential lever for triggering this development: nearly €20 million plus additional regional and national funding was provided until now for renewable energy projects in the Güssing area (http://ec.europa.eu/regional_policy/sources/docgener/informat/country2009/at_en.pdf).

The so-called “Güssing Model” is the strategy of de-centralised, local energy production with all available renewable resources in a region. Since every region has certain renewable energy resources in different proportions, the model can serve as an example for many communities.

Using wood from local forests in its biomass heating plant, the town of Güssing produces more electricity than it consumes and is able to provide power for the entire region. Over 50 companies and 1 000 jobs have been created in the renewable energy sector alone and, since 1995, Güssing has reduced its carbon dioxide emissions by 93%.

The European Centre for Renewable Energy (German abbreviation: EEE), has its headquarters in Güssing (southern Burgenland). The EEE’s main mission is to develop lasting regional and community-based concepts for energy conservation and for the generation and use of renewable energy. The EEE acts as an umbrella organisation for all energy-related activities in the Güssing region. It also organises lectures and training in the field of renewable energy and tours through the “Eco Energy Land” formed by the EEE and 10 municipalities in the surrounding of Güssing.

The EEE is a network organisation that is active on multiple levels. At the local-regional level, EEE organises tours in the framework of eco-energy tourism and is the contact for information about the energy production plants in the Güssing district. At the national level, the EEE coordinates the exchange of information between research institutions, educational institutions and industry. At the international level, the EEE is involved in numerous networks in the field of renewable energy and participates in projects that have the goal of identifying so-called energy regions.

The EEE has created the biomass district heating plant in Güssing (the largest in Europe when it was founded), a biodiesel plant and the biomass powerplant in Güssing, which is currently the only one of its kind in the world. A suitable logistics plan for the wood supply was created, and a wood drying facility built, which is essential to assuring a year-round supply for the district heating network.

Annex 19: Carbon Neutral Development of Newquay Airport – Airport development with a focus on becoming operational carbon neutral by 2015 and totally carbon neutral by 2025.

Newquay Cornwall Airport is a small airport within Cornwall that plays an important role in overcoming the regions peripherality and relative isolation. Newquay Cornwall Airport is a long established military airport that started civilian flights in 1993, since this time the military use of the airport has transitioned to what is now a solely civilian service. Until 2001 passenger numbers remained small (less than 100,000pa), but through the introduction of a London Stansted service in 2002 passenger numbers doubled to 185,000pa and have risen to 350,000pa in 2007.

Whilst development of the airport will likely have a modest impact on passenger growth (high growth scenarios envisage 1.8m passengers pa by 2030), core to the development is safeguarding Newquay Airport's operation in the transitions from a military operation to a civilian one. Additionally, Cornwall Council, as owners of the site envisage a range of supporting developments to build on the economic potentials of the site, these include a business development area, terminal development and other economic development projects.

As with any complex development project ERDF is only a part funder of overall development costs. For the South West RDA in managing the delivery of Cornwall and Isles of Scilly Convergence Programme it is therefore a complex process determining what elements of environmental sustainability are part of the overall development or are exclusively ERDF funded.

With input from the regions **Cross Programme Environment Advisory Group** and Cornwall Council it was felt to be disingenuous to exclude environmental considerations from non-ERDF funded elements and therefore a 'whole-project' approach to environmental sustainability should be developed. This approach to delivering a '**whole-project' approach to environmental sustainability**' is core to the Newquay Cornwall Airports development objectives, helps develop and embed environmental sustainability into non-ERDF funded programmes and investments, whilst also acknowledges that delivering environmental sustainability is a long-term and on-going objective.

In order to ensure that environmental sustainability remains core to the development of Newquay Cornwall Airport, Cornwall Council, have undertaken a variety of master planning documents, including a Draft Sustainability and Environmental Management Strategy, a Draft Surface Access Strategy, a Carbon Impact Study (to 2030) and a Strategic Environmental Assessment. These documents have helped shape the Newquay Cornwall Airport's commitment to **carbon neutrality** whereby it aims to deliver carbon neutrality of all its terminal and ground operations by 2015 (including initiatives such as converting all ground vehicles to run on electricity, installation of wind turbines and other micro-renewables, energy saving initiatives and enhanced recycling, bio-diesel taxi fleet and enhanced public transport, new developments to be constructed in line with BREEAM standards), and by 2030 the airport aims to be **carbon neutral** in terms of aviation and surface access.

Because of the complex relationship between different delivery partners, lengthy delivery timescales, commercial investment interests, complex planning processes and input from multiple funders the **Cornwall and Isles of Scilly Convergence Programme** felt it best to work with Cornwall Council in establishing a **World-Class Newquay Cornwall Airport Environmental Steering Group**, that would give expertise and help shape the concrete delivery of the Airport's strategic environmental objectives in the short, medium and longer term. The steering Group will meet quarterly with the minutes of meeting reported to the south West RDA as part of on-going project monitoring.

This Steering Group, imposed on the Airport Delivery Team, as part of a **contract condition** of ERDF investment will ensure that there is on-going input and challenge from the environmental sector (via the

steering group) in ensuring and helping Newquay Cornwall Airport deliver the highest possible standards of environmental sustainability and becomes a world-leader in reducing the environmental intensity of aviation.

Annex 20: Matrix for evaluating of projects under the thematic call ‘Territorial Excellence’ in Nord-Pas de Calais, France

Themes	Not Applicable	None/weak	Average	Good	Excellent
Studies					
Implementation of preliminary environmental assessment					
Quality EIA- what is quality EIA – EIA on quality?					
Participation of an environmental expert- where, on drafting of the project?					
Management of Natural Resources					
Contribution to the maintenance and development of the biodiversity					
Qualitative and quantitative water management					
waste ?management					
Environmental Practices					
Environmental monitoring of the project					
Distribution of good environmental practices – distribution for whom? By the project?					
Sustainable Urbanism					
level of taking into consideration of the High Environmental Quality (HQE) building standard					
Preservation of the energy resource – have you meant : saving of energy?					
Promotion and usage of RES					
Transport accessibility					