



**Ex-ante Evaluation and  
Strategic Environmental Assessment  
of the transnational cooperation programme  
CENTRAL EUROPE 2020**

**Environmental Report**

**Component 5: Strategic Environmental Assessment**

27/02/2014



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Information on the development of the programme of the transnational cooperation programme CENTRAL EUROPE 2020 can be found on [www.central2013.eu](http://www.central2013.eu).

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## 0. Non-technical summary

### Introduction

The Operational Programme CENTRAL EUROPE 2020 (OP CE 2020) is a European Territorial Cooperation Programme. According to the SEA Directive EU/2001/42 a Strategic Environmental Assessment (SEA) must be implemented as part of the programming procedure of the OP CE 2020. The SEA aims to assess the effects of the OP CE 2020 on the environment. In this environmental report the OP CE 2020 version 3.2 (November 2013) forms the basis for the assessment of possible effects on the environment resulting from the implementation of this programme.

### Consultation process on the draft OP CE 2020 the draft environmental report

As laid down in the SEA Directive 2001/42/EC (Article 6) the national environmental authorities and the public of the CE Programme area were consulted and invited to provide their feedback on the OP CE 2020 (3.2) and the draft environmental report (status 02.12.2013). The consultation process took place six weeks (from 5/2013 to 3/2014). In some participating Member States which extended the national consultation period the consultation period was eight weeks (from 5/2013 to 5/2014). At transnational level the required consultation documents have been published on the CE Programme's website by the MA/JTS. At national level the Member States participating in the CE 2020 Programme were responsible to conduct the consultation process by taking into consideration the national specific requirements. A total 41 organisations from different participating Member States of the CE 2020 Programme took part in the SEA consultation process. The information gathered in the framework of the consultation has been taken into account in the preparation of the programme by the MA/JTS (supported by the SEA experts). Depending if the received comments were considered relevant they have been integrated into the final OP CE 2020 and final environmental report.

### Core contents of the Operational programme CE 2020

The overall strategy of the Operational Programme CE 2020 is embedded in the superordinate objectives and strategies of the EU. Particularly relevant in this regard is the EU 2020 Strategy. Moreover, the CENTRAL EUROPE programme must be in line with the specifications set by the EU Common Strategic Framework for EU Cohesion Policy. In this context, the CENTRAL EUROPE 2020 Programme has specified the following four priority axes:

**Priority axis 1:** Cooperating on innovation to make CENTRAL EUROPE more competitive

**Priority axis 2 :** Cooperating on low carbon strategies in CENTRAL EUROPE

**Priority axis 3:** Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

**Priority axis 4:** Cooperating on transport to better connect CENTRAL EUROPE

## Current state of environment

In order to depict the current state of the environment within the programme area of CE 2020, the status quo of the defined environmental issues is considered. Regarding the current state of these environmental issues a different picture of the environment in the programme area emerges. The environmental issues such as “Water”, “Soil” or “Air and Climate” are exposed to various pressures (e.g. from transport, intensive agriculture) which have an adverse effect on these issues. The effects of climate change may, for instance, lead to a further increase in flood frequency and intensity which is already high compared to other territories in the EU. It can be positively highlighted that the number of NATURA 2000 sites within the programme area amounts to 11,482 sites which together represent 43.4 % of all NATURA 2000 sites in the EU. With regard to cultural and natural heritage as both are source of cultural and local identity as well as a driving force of regional development, it can be stated that the 100 heritage sites located within the CE 2020 programme area account for more than one quarter of all UNESCO sites within the EU (374). With view to energy resources, a positive development is also observable within the programme area as the share of renewable energy sources in gross final energy consumption has increased.

## Methods of assessment

The methodological approach to assessing the environmental effects of the OP CE 2020 is supported by the identified guiding questions. These guiding questions are predominantly derived from environmental protection objectives which are based on different environmental policies existent at both the EU and international levels (e.g. UN-level). The possible environmental effects of the OP CE 2020 are considered for each environmental issue and cross-cutting theme. For the environmental assessment the most detailed level of programme information is used. Thus, the assessment of likely effects resulting from the OP CE 2020 is conducted at the level of the priority axes, their corresponding specific objectives and potential transnational actions.

## Possible environmental effects of the OP CE 2020 Programme

The assessment at the programme level can only provide a general outline of possible environmental effects. This is due to the fact that more detailed information on the likely environmental effects will occur at the implementation phase of the projects. Moreover, due to the fact that the OP CE 2020 is an ETC programme it must be considered that its key focus is on the promotion of “soft factors” such as the building and increasing of capacities including exchange of knowledge and good practice between the participating Member States. **Thus, the possible environmental effects of the OP CE 2020 will primarily be of indirect nature.** Nevertheless, the promotion of “soft factors” forms the basis for further investment activities.

A short description of the main environmental effects on each Priority axis identified within the environmental assessment:

**Priority axis 1:** Building and increasing capacities and know-how in the innovation sector will likely have no significant effect on the environment. Amongst other things, however, the build-up of skills and competences in the field of eco- and social innovation as well of low-carbon solutions could affect almost all environmental issues in a positive way.

**Priority axis 2:** Building and increasing capacities for low carbon strategies in different fields such as improved energy efficiency in public infrastructure, strengthened use of renewable energy resources or enhanced low-carbon mobility will contribute to a reduction of air pollution and emissions (CO<sub>2</sub>, GHG) and thus to environment improvement and climate change mitigation. This has in particular a positive effect on the environmental issues “Air and Climate” but also for “Population and Human Health” and “Flora, Fauna and Biodiversity”. With regard to the usage of renewable energy resources single possible negative effects could likely occur on the several environmental issues.

**Priority axis 3:** Building and increasing capacities for the improvement of the sustainable use of natural and cultural resources will likely have a possible effect on all environmental issues. The promotion of integrated (environmental) approaches with focus on sustainable use will likely contribute to a reduction of external pressures and usage conflicts and thus contributes to protect the natural and cultural resources.

**Priority axis 4:** Building and increasing capacities for the improvement of the transports system with focus on the promotion of regional public transport and multimodal environment-friendly freight solutions will likely have possible positive effects in particular on “Air and Climate” as well as an “Population and Human Health”. Due to this focus possible environmental effects will likely not occur for most of the other environmental issues.

### **Monitoring measures**

According to Article 10 of the SEA Directive EU/2001/42, possible significant environmental effects of the implementation of the Operational Programme CE 2020, identified within the existing environmental assessment, are to be monitored in order to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. Thus, monitoring measures must form part of and be implemented within the OP CE 2020. At the programme level, the monitoring of environmental effects should be incorporated into the monitoring framework of the programme. At the project level within the quality assessment of the project proposals possible effects on the environment should be considered as a horizontal issue taking into consideration also the results of the environmental assessment within this SEA report. Furthermore, the project applicants should describe within the application forms which possible environmental effects the project will likely have. During the implementation of the projects monitoring measures should also be implemented.

This figure provides an overview of the possible effects on the environmental issues resulting from the OP CE 2020.

	Environmental issues					
	Water	Soil	Air and Climate	Population and Human Health	Fauna, Flora and Bio-diversity	Cultural Heritage and Landscape
<b>Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive</b>						
Specific objective 1.1 To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity	o	o	o	o	o	o
Specific objective 1.2 To improve knowledge and skills for advancing economic and social innovation in central European regions	o/+	o/+	o/+	o/+	o/+	o
<b>Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE</b>						
Specific objective 2.1 To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure	o	o	+	o/+	o/+	o
Specific objective 2.2 To improve territorially based energy planning strategies and policies supporting climate change mitigation	o/-	o/+	+	o/+	o/+/-	o/-
Specific objective 2.3 To improve capacities for mobility planning in functional urban areas to lower CO2 emissions	o	o	+	o/+	o/+	o
<b>Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE</b>						
Specific objective 3.1 To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources	+	+	+	o/+	+	+
Specific objective 3.2 To improve capacities for the sustainable use of cultural heritage and resources	o	o	o	o/+	o	+
Specific objective 3.3 To improve environmental management of functional urban areas to make them more liveable places	+	+	+	+	+	+
<b>Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE</b>						
Specific objective 4.1 To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks	o	o	+	o/+	o	o
Specific objective 4.2 To improve coordination among freight transport stakeholders for increasing multimodal environment-friendly freight solutions	o/-	o	+	o/+	o	o

**Legend for the assessment**

+	Possible occurrence of positive environmental effects
-	Possible occurrence of negative environmental effects
+/-	Possible occurrence of both positive and negative environmental effects
o	Likely no significant environmental effects
/	Assessment is not possible due to the limited availability of information



## 1. Introduction

The **environmental report** is one step in the Strategic Environmental Assessment which is to be implemented as part of the programming procedure of the transnational cooperation programme CENTRAL EUROPE 2020.

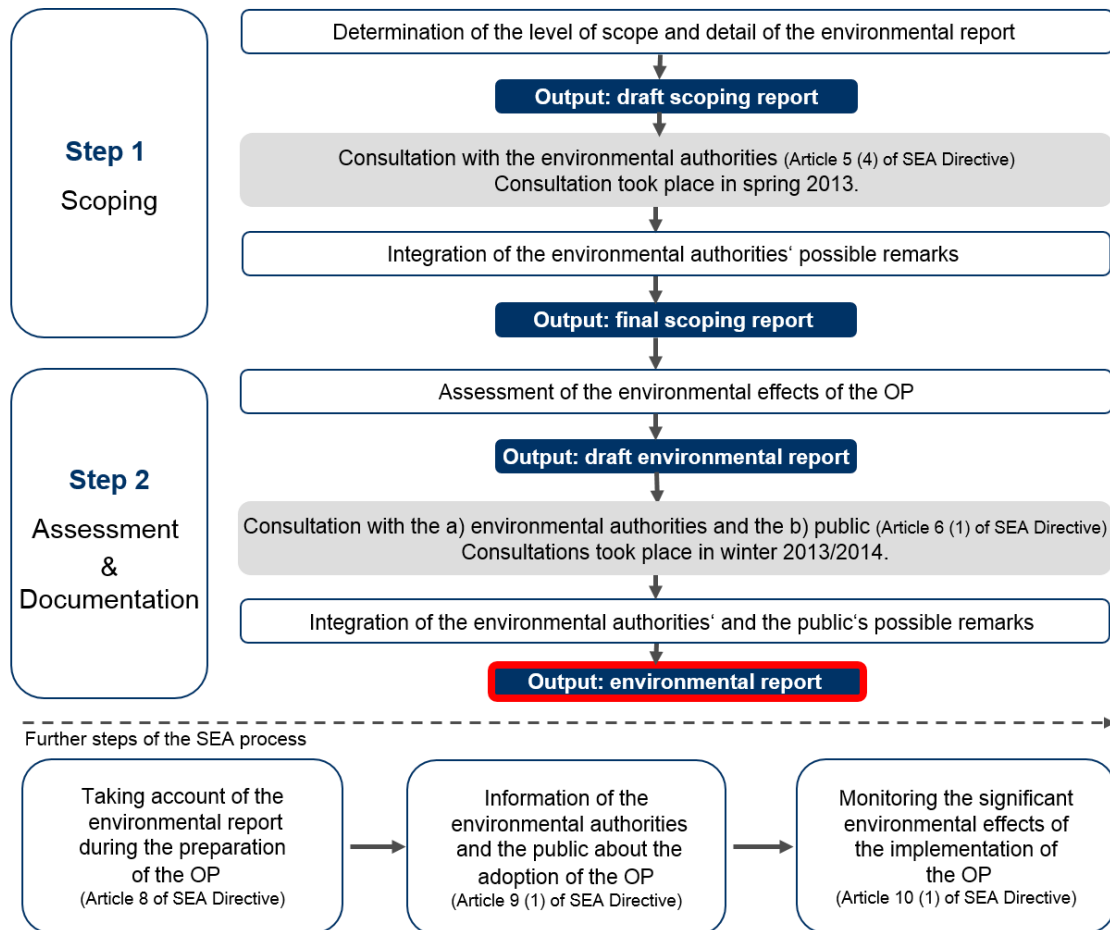
The Operational Programme CENTRAL EUROPE 2014-2020 (OP CE 2020) is a **European Territorial Cooperation Programme** which aims to promote cooperation between the regions of the CENTRAL EUROPE programming area. The OP CE 2020 supports transnational cooperation projects to encourage the **building and increasing of capacities including exchange of knowledge and good practices** between the participating Member States. This means that instead of promoting hard factors such as the building of mayor infrastructures the funding priority of the OP CE 2020 is mainly the promotion of soft factors as mentioned above. Consequently, the majority of the projects will have only **limited direct effects on the environment** due to the overall goal of the Operational Programme (“Cooperating beyond borders in central EUROPE to make our cities and regions better places to live and work”). In light of the limited budget of the CE Programme compared to the size of the overall territory only very limited direct effects on the environment can be expected. Nevertheless, it must be noted that the OP CE 2020 strives to contribute to the improvement of resource efficiency and sustainability as a horizontal issue and includes one priority axis (priority axis 3 “Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE”) which specifically refers to environmental protection and management.

The Managing Authority/Joint Technical Secretariat (MA/JTS) coordinates the development process of the OP CE 2020. With regard to the participating Member States the programme area of the OP CE 2020 is presented in chapter 4.1 of this environmental report.

The **Strategic Environmental Assessment** is based on the SEA Directive EU/2001/42 and pursues the following objectives (according to Article 1 of this Directive):

- “to provide for a high level of protection of the environment and
- to contribute to the **integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development**, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

Accordingly, the SEA aims to assess the **possible effects of the OP CE 2020 on the environment** and is an integral part of the whole programming process. This means that the SEA must be carried out during the preparation of the programme in order to ensure directly the integration of feedback of the consultations of the public and environmental authorities into the CE 2020 Programme. The SEA process must be completed before the approval and submission to the Commission. The SEA must be considered as a continuous process which exhibits characteristic elements. As the following figure shows, the environmental report is part of **the second main step within this SEA process**.



**Figure 1: Main process elements and outputs of the SEA process CE 2020**

Source: blue | DSN, 2014

The **content of the environmental report** is based on Annex I of the SEA Directive. Thus, the report

- provides a **non-technical summary**;
- outlines the **programme's main objectives**;
- sets out briefly **the scope and methods of assessment**;
- points out the **environmental policy framework** at the international and EU level which is relevant for the assessment;
- elaborates on the **current environmental state** (including existing environmental problems) of the programme area;
- demonstrates the **likely evolution of the current environmental state** without the implementation of the programme;
- evaluates **possible effects on the environment resulting from the programme's implementation**;
- proposes **recommendations identified to prevent, reduce, and offset likely significant negative effects** on the environment which may occur as a consequence of the programme's implementation;
- recommends **monitoring measures**.

In this environmental report the **OP CE 2020, version 3.2 (November 2013)** forms the basis for the assessment of possible effects on the environment resulting from the implementation of this programme.

## 2. Consultation process on the draft OP CE 2020 and the draft environmental report

As laid down in the SEA Directive 2001/42/EC (Article 6) a consultation of the public and the national environmental authorities on the CE 2020 Programme's effects on the environment has to be conducted. Accordingly, the national environmental authorities and the public of the CE Programme area were consulted and invited to provide their feedback on the relevant documents. The consultation was based on the OP CE 2020 (3.2) and the draft environmental report (status 02.12.2013).

The consultation period was defined for six weeks in the scoping report. Thus, the consultation process took place from week 50/2013 to week 3/2014. However, some participating Member States extended the national consultation period. With regard to this, the SEA consultation period in this participating Member States was eight weeks (from 50/2013 to week 5/2014).

Within the SEA process various consultation approaches have been applied. At transnational level the required consultation documents (draft environmental report, OP Version 3.2, technical summaries of both documents) have been published on the CE Programme's website by the MA/JTS. The national contact points were asked by the MA/JTS to link this part of the CE Programme's website to their national websites. Regarding this, comments from national environmental authorities and the public have been collected by means of an online questionnaire structured following the main chapters of the environmental report and linked to the Programme Priorities and Specific objectives.

At national level the Member States participating in the CE 2020 Programme were responsible to conduct the consultation process. The consultation of the environmental authorities and the public was carried out in the Member States according to the national specific requirements. Therefore detailed arrangements for the information and consultation of the authorities and the public were determined by the participating Member States.

The MA/JTS collected the received comments at transnational and national level and forwarded this feedback to the SEA experts.

Having a look at the intensity of the participation a total 41 organisations from different participating Member States of the CE 2020 Programme took part in the SEA consultation process. Figure 2 gives an overview of the number of organisations, grouped by types of organisations, that participated in the SEA consultation.

From the point of view of the SEA experts, the participation intensity can be assessed as satisfactory when comparing the number of participating organisations within the SEA consultation for the CE 2020 Programme and the CE 2007-2013 Programme. Whereas within the CE 2020 programming procedure 41 organisations took part in the SEA consultation, 16 organisations participated in the SEA process within the CE 2007-2013 Programme. Furthermore, it can be positively pointed out that the number of organisations which are not a public authority is relatively high. In comparison to this, within the SEA consultation of the

CE Programme 2007-2013 only two organisations other than public authorities participated.<sup>1</sup> In addition, organisations from eight of the nine participating Member States of the CE 2020 Programme gave their feedback.

Type of organisation	Number of participating organisations
National public authority	16
Regional or local public authority	5
Other public or equivalent body (e.g. regional development agency)	4
Non-profit-organisation, NGO	4
Private company, private development agency, consultancy	3
Research institution, university etc	3
Other	4
n/a	2
<b>Total number of organisations</b>	<b>41</b>

**Figure 2: Overview of organisations that participated within the SEA consultation process**

Source: blue GbRI, DSN 2014

The received feedback was reviewed by the SEA experts. Within this step the SEA experts classified the received comments as follows:

- The comment is considered relevant or not relevant for the environmental report. If the comment is considered relevant, it has been integrated (fully, partially) in the final environmental report;
- The comment is considered relevant or not relevant for the OP CE 2020. If the comment is considered relevant, an integration of the comment in the OP CE 2020 has thus been suggested.

Additionally it has to be noted that some comments do not refer to SEA-related issues and have thus not been considered in the environmental report and no integration in the OP CE 2020 has been suggested within framework of the SEA. Furthermore, some comments do not have a clear reference point due to their unspecific character and other comments relate to observations or assessments which do not include a concrete suggestion of improvement. An overview showing the assessment of the received comments is provided in annex C in this environmental report.

<sup>1</sup> cf. CENTRAL EUROPE (2012): CENTRAL EUROPE Programme 2007-2013 (revised version 2.1), p. 131

With regard to the assessment of the comments the following general conclusions can be derived:

- regarding the description of the current state of environment (section 6) regional peculiarities and specific territories are not considered since this would go beyond the scope of the environmental report.
- in order to ensure data consistency and comparability only data on national level can be considered within the environmental report.
- comments which have been only expressed by single organisations and not by several organisations and whose argumentation the SEA experts do not share has not been considered.

Finally, the information gathered in the framework of the consultation with the environmental authorities and the public has been taken into account in the preparation of the programme by the MA/JTS (supported by the SEA experts). Depending if the received comments were considered relevant they were integrated into the final OP CE 2020 and final environmental report.

### 3. Outline of core contents of the Operational Programme CE 2020

This chapter outlines the core contents of the Operational Programme CE 2020.

#### 3.1 General framework of the Operational Programme CE 2020

The overall strategy of the Operational Programme CE 2020 is embedded in the superordinate objectives and strategies of the EU. Particularly relevant in this regard is the **EU 2020 Strategy of smart, sustainable and inclusive growth** with which the programme strategy corresponds. Moreover, the OP CE 2020 must be in line with the specifications set by the **EU Common Strategic Framework** for EU Cohesion Policy. Amongst other things this framework prescribes the following five objectives which must be considered within Transnational Cooperation Programmes such as CENTRAL EUROPE 2020:

- Cooperation in R&D and ICT,
- Joint management of natural resources,
- Shared infrastructure (e.g. waste, health, R&D and innovation),
- Network infrastructures (e.g. transport infrastructure planning, electricity infrastructure, environmentally-friendly modes of transport ), and
- Security issues (e.g. crime and security cooperation).

Furthermore, the OP CE 2020 is based on the experiences made within the CENTRAL EUROPE 2007-2013 Programme which already showed close links to the EU 2020 strategy.

In the context mentioned above the CENTRAL EUROPE 2020 programme has specified the following **overall goal** (technical specification) for the funding period 2014-2020:

*“Transnational cooperation in central Europe is the catalyst for implementing smart solutions answering to regional challenges in the field of innovation, low carbon economy, environment, culture and transport. It builds regional capacities following an integrated bottom-up approach involving and coordinating relevant actors from all governance levels.”*

In addition, the following **horizontal principles** are taken into consideration for the strategic orientation of the Operational Programme CE 2020:

- Sustainable development,
- Equal opportunities and non-discrimination, and
- Equality between men and women.

### 3.2 Key objectives and priorities of the Operational Programme CE 2020

In order to ensure a more impact-driven and result-orientated approach of transnational programmes, article 9 of the Common Strategic Regulation identifies eleven **thematic objectives** in need of consideration for the forthcoming EU funding period from 2014 to 2020.

Of these eleven thematic objectives the following four have been chosen to define the focus of the Operational Programme CENTRAL EUROPE 2020:

- Strengthening research, technological development and innovation (CSF-TO 1)
- Supporting the shift towards a low-carbon economy in all sectors (CSF-TO 4)
- Protecting the environment and promoting resource efficiency (CSF- TO 6)
- Promoting sustainable transport and removing bottlenecks in key network Infrastructures (CSF-TO 7)

The selection of these objectives is based on the challenges and needs of the CE 2020 programme area<sup>2</sup> and contributes to the programme's overall goal.

On the basis of these selected thematic objectives four priority axes which cover the issues innovation, low-carbon economy, natural and cultural resources and transport have been developed. The four priority axes have been further specified to form seven investment priorities which were chosen on the basis of the investment priorities pre-defined for each thematic objective as well as ten programme specific objectives. Thus, the programme specific objectives substantiate the specific changes which result from the implementation of the OP CE 2020.

The following figure provides an overview of the selected priority axes, thematic objectives, investment priorities and specific objectives of the OP CE 2020.

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<sup>2</sup> cf. Operational Programme CE 2020 (draft version 2.1.2, July 2013): chapter 1.1.2 Analysis of the socio-economic situation and the main challenges and needs of central Europe



<b>Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive</b>	
<b>Thematic objective</b>	
1. Strengthening research, technological development and innovation	
<b>Investment priority</b>	
1b. Promoting business investment in innovation and research, and developing links and synergies between enterprises, R&D centres and higher education [...]	
<b>Specific objectives</b>	
1.1 To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity	
1.2 To improve knowledge and skills for advancing economic and social innovation in central European regions	
<b>Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE</b>	
<b>Thematic objective</b>	
4. Supporting the shift towards a low-carbon economy in all sectors	
<b>Investment priority</b>	
4c. Supporting energy efficiency and renewable energy use in public infrastructures, including in public buildings and in the housing sector	4e. Promoting low carbon strategies for all types of territories, i.p. urban areas, incl. the promotion of sustainable urban mobility and mitigation relevant adaptation measures
<b>Specific objectives</b>	
2.1 To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure	2.2 To improve territorially based energy planning strategies and policies supporting climate change mitigation
	2.3 To improve capacities for mobility planning in functional urban areas to lower CO <sub>2</sub> emissions
<b>Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE</b>	
<b>Thematic objective</b>	
6. Protecting the environment and promoting resource efficiency	
<b>Investment priority</b>	
6c. Protecting, promoting and developing cultural and natural heritage	6e. Action to improve the urban environment, regeneration of brownfield sites and reduction of air pollution
<b>Specific objectives</b>	
3.1 To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources	3.3 To improve environmental management of functional urban areas to make them more liveable places
3.2 To improve capacities for the sustainable use of cultural heritage and resources	
<b>Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE</b>	
<b>Thematic objective</b>	
7. Promoting sustainable transport and removing bottlenecks in key network infrastructures	
<b>Investment priority</b>	
7b. Enhancing regional mobility through connecting secondary and tertiary nodes to TEN-T infrastructure	7c. Developing environment-friendly and low-carbon transport systems including river and sea transport, ports and multimodal links
<b>Specific objectives</b>	
4.1 To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks	4.2 To improve coordination among freight transport stakeholders for increasing multimodal environment-friendly freight solutions

**Figure 3: Programme strategy of the Operational Programme CENTRAL EUROPE 2020**

Source: CENTRAL EUROPE 2013a

## 4. Scoping and methods of assessment

### 4.1 Scoping

In line with Article 5 (4) of the SEA Directive EU/2001/42 the following framework has been defined for the scoping process.

#### Relevant geographical area and forecast horizon

Geographically, the analysis of the current state of the environment, the description of development trends (zero-option) and the assessment of possible effects resulting from the implementation of the OP CE 2020 cover the area of Austria, Croatia, the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia as well as the relevant parts of Germany<sup>3</sup> and Italy<sup>4</sup> (cf. Figure 4). Broader environmental aspects such as the effects of global climate change are, however, considered in a wider spatial context.



**Figure 4: Programme area of the Operational Programme CENTRAL EUROPE 2020**

Source: CENTRAL EUROPE 2013b modified from blue | DSN

<sup>3</sup> Baden-Württemberg, Bayern, Berlin, Brandenburg, Mecklenburg- Vorpommern, Sachsen, Sachsen-Anhalt, Thüringen

<sup>4</sup> Emilia-Romagna, Friuli-Venezia Giulia, Liguria, Lombardia, Piemonte, Provincia Autonoma Bolzano/Bozen, Provincia Autonoma Trento, Valle d'Aosta/Vallée d'Aoste, Veneto

With regard to the forecast horizon the timeframe considered for the environmental assessment not only corresponds to the funding period of the OP CE 2020 from 2014 to 2020, but also to the anticipated completion of funded projects scheduled for 2022.

### **Environmental issues, including indicators**

Corresponding to the SEA Directive Annex I b, the environmental report must provide information on aspects relevant to the current environmental state and its likely evolution without the implementation of the CE 2020 programme (zero-option). The description of these relevant aspects forms the basis for assessing the possible environmental effects which may result from the OP CE 2020.

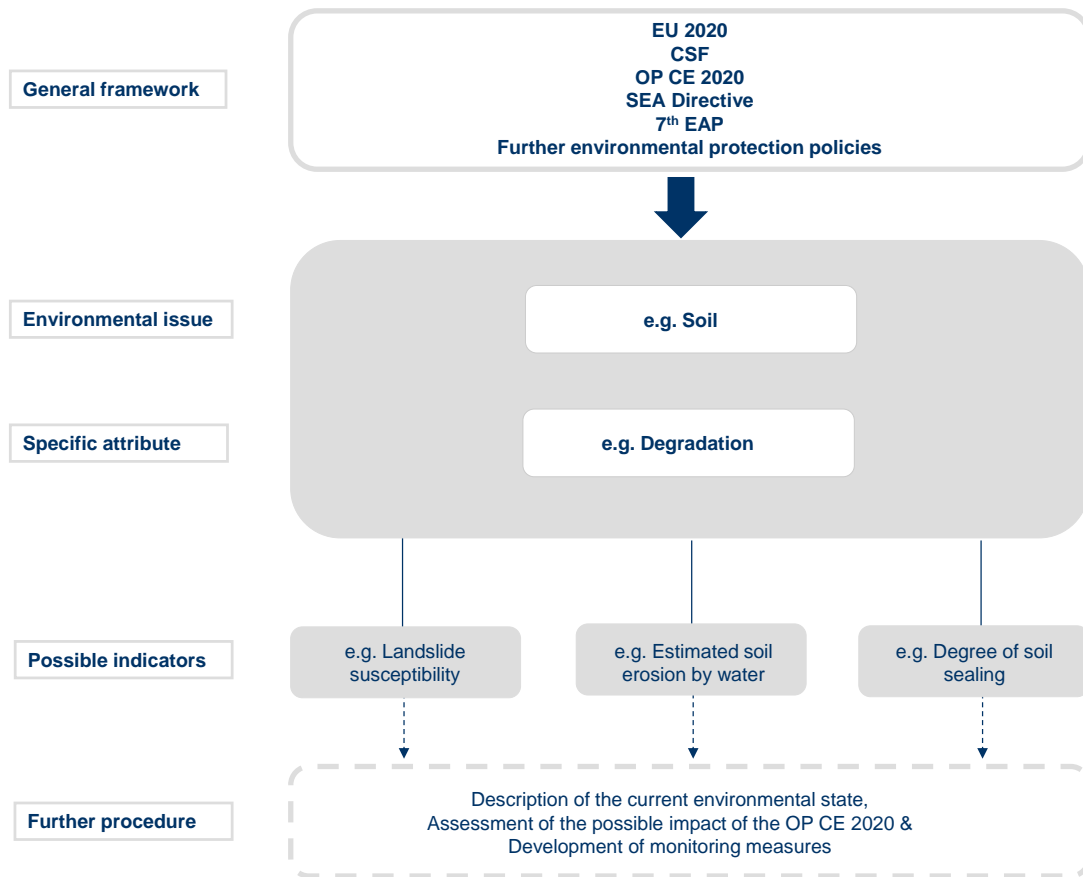
In line with both the requirements defined by the SEA Directive in Annex I f and further EU legislations, the following environmental issues with relevance to the future environmental assessment are considered within this environmental report:

- Water,
- Soil,
- Air and Climate,
- Population and Human Health,
- Fauna, Flora and Biodiversity, and
- Cultural Heritage and Landscape.

In addition, issues such as “Energy Resources”, “Mobility and Transport” as well as “Waste and Material Resources” are also taken into account. As they directly or indirectly affect the selected environmental issues, these aspects are considered to be cross-cutting themes. Given the cross-cutting character of these issues, the description of their current state and likely evolution has been integrated into the appropriate environmental issues noted above.

Furthermore, corresponding indicators are used as guidelines to characterise both the aspects relevant to the description of the current state of the environment and its likely evolution without implementation of the OP CE 2020 as well as for the assessment itself.

The selection process of the environmental issues and indicators is shown in an exemplary manner for the environmental issue “Soil” below (cf. Figure 5).



**Figure 5: Selection process of environmental issues and indicators for the example “Soil”**

Source: blue | DSN, 2013

**Data basis and depth**

Alongside other data sources, the data used in the environmental report is primarily based on statistical sources. Data used for the description of the current state of the environment and its likely evolution without implementation of the OP CE 2020 (cf. Chapter 6) is, for example, primarily based on the analysis of secondary data. To ensure both sufficient availability and comparability of data for each CE 2020 Member State, the secondary data used is, among other things, provided by the statistical office of the European Union, Eurostat. As a new Member State of the EU and also a new participating country of the CE 2020 data for Croatia is considered to the extent that it is available within official European statistics.

In light of the size and complexity of the study area, national (NUTS 0) as opposed to regional level (NUTS 2) data is used. Although only parts of Germany and Italy belong to the programme area national level data will also be used in these cases in order to ensure sufficient consistency.

## 4.2 Methods of assessment

### Environmental protection objectives and guiding questions

In order to assess the possible effects resulting from the implementation of the OP CE 2020, central questions which serve as guidelines for the environmental assessment are identified for each environmental issue. These guiding questions are predominantly derived from environmental protection objectives which are based on different environmental policies existent at both the EU and international levels (e.g. UN-level) (cf. Chapter 5). The main basis for the identification of these environmental objectives and corresponding guiding questions is provided by superordinate environmental policies at the EU-level. Consequently, the choice of environmental policies is in some cases limited to superordinate frameworks as these imply supplementary provisions which regulate particular attributes of the selected environmental issues. Due to their specific regional focus, transnational protection agreements which refer only to parts of the programme area are not taken into account.

### Identification of significant effects on the environment

The methodological approach to assessing the possible environmental effects of the Operational Programme CENTRAL EUROPE 2020 is guided by the following central question:

*"Do the Specific objectives (and corresponding potential transnational actions) related to the four priority axes identified in the Operational Programme CE 2020 have a significantly positive or negative effect on the environmental issues in the programme area ?"*

To answer this question the assessment is supported by the identified guiding questions and is carried out on the basis of the following 5-point-scale:

Legend for the assessment	
+	Possible occurrence of positive environmental effects
–	Possible occurrence of negative environmental effects
+/-	Possible occurrence of both positive and negative environmental effects
o	Likely no significant environmental effects
/	Assessment is not possible due to the limited availability of information

**Figure 6: Legend for the assessment within the SEA process CE 2020**

Source: blue | DSN, 2013

Furthermore, it should be noted that the assessment will be primarily based on a **qualitative approach**. Consequently, the environmental assessment focuses on the following: (1) the description of the anticipated advantages and disadvantages of the Operational Programme CENTRAL EUROPE 2020 (2), the possible positive or negative effects resulting from its implementation (3) the interdependencies between the possible effects identified.

### **4.3 Discussion of alternatives and measures to minimize possible adverse effects**

The examination of appropriate alternatives is particularly necessary in cases where a significant effect on the defined environmental issues is anticipated. A description of the zero-option alternative is conducted within the environmental report and can be found in chapter 6. The zero-option scenario refers to the environmental status quo after full implementation of the projects funded in the previous period 2007-2013, as well as the anticipated evolution of the environment without implementation of the OP CE 2020.

Thus, the zero-option scenario is used as a basis to compare the possible effects resulting from the implementation of the CE 2020 programme.

Furthermore, the assessment of the various versions of the OP CE 2020 can be considered as a discussion of alternatives. Within this discursive process suggestions to amend the final draft of the Operational Programme CE 2020 with regard to possible environmental effects will be integrated.

## 5. Environmental policy framework

This chapter provides an overview of the environmental policy framework which has an effect on environmental protection within the CE 2020 programme area. For each of the defined environmental issues and cross-cutting themes it includes various environmental policies at the EU-level and beyond (e.g. UN-level). The choice of environmental policies is based on the relevance of their objectives to each selected environmental issue and cross-cutting-theme.

Besides the specific policies for the defined environmental issues and cross-cutting themes, superordinate strategies and programmes must also be considered. These policies provide an overall framework for environmental protection and include, for example, the “Proposal for the 7<sup>th</sup> EU Environmental Action Programme (EAP)” at the EU-level as well as the UN Environmental Programme (UNEP) at the international level. General protection objectives are included within these programmes. In addition, the headline targets of the long-term strategy Europe 2020 which relate to environmental aspects will also be considered.

According to these environmentally relevant policies, the OP CE 2020 must be in line with their objectives.

Therefore, the presentation of each defined environmental issue and cross-cutting theme is accompanied by the corresponding environmental policies and their qualitative or quantitative environmental objectives as well as by the resulting guiding questions which will be considered within the environmental assessment. A summary table is provided at the end of each respective section.

### 5.1 Water

The main objective for the environmental issue “Water” is the protection of the different water body types<sup>5</sup>. Indeed, the protection of water from various pressures is reflected in several regulations at the EU-level.

The **EU Water Framework Directive (2000/60/EC)** forms the key legislation for the environmental issue “Water”. The Directive aims at different aspects including the prevention and reduction of water pollution, the promotion of sustainable water resource use and the contribution to mitigating the effects of floods and droughts. Furthermore, it calls for the improvement of the ecological and chemical state of water bodies in order to achieve a “good” overall water quality status by 2015. Therefore, both the regular analysis of water bodies as well as the establishment of continuously revised management plans for river basin districts is necessary.

Groundwater is the most sensitive and largest freshwater body within the EU territory. The **EU Groundwater Directive (2006/118/EC)**<sup>6</sup> supplements the Water Framework Directive

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<sup>5</sup> The term “water bodies” includes inland surface waters, transitional waters, coastal waters and groundwater.

<sup>6</sup> The EU Water Framework Directive (2000/60/EC) is also complemented by several directives for human-related water use. The Drinking Water Directive (98/83/EC) specifies requirements for the quality of water intended for human consumption, The Bathing Water Directive (2006/7/EC by 2014) calls for clean and healthy bathing water to protect human health.

in that it includes quality standards or threshold values for the chemical state of groundwater. Furthermore, the Directive also refers to the reduction and prevention of indirect pollution which may, for example, result from the penetration of pollutants into the soil.

In addition, there are supplementary provisions that specify several of the protection objectives mentioned above. The **EU Nitrates Directive (91/676/EEC)** focuses on the protection from water pollution caused by nitrates from agricultural sources. According to the Directive this is to be achieved by means of water quality monitoring and the designation of vulnerable zones. Furthermore, compulsory action programmes and a code of good agricultural practice are designed to aid the reduction of pollution caused by nitrates. The “Nitrates’ sister Directive”, the **EU Urban Waste Water Directive (91/271/EEC)**, not only provides for the mitigation of negative effects resulting from discharges of urban waste water and industrial recharges, but also advocates for the better management of these waste waters. As specified by the Directive, a bi-annual status report must be published by the parties, discharges must be monitored regularly and both sensitive and less sensitive areas affected by treated waters must be listed.

Amongst other things, the sustainable use of water resources, i.e. a careful abstraction of water, is also directed by the **EU Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)**.

The **EU Floods Directive (2007/60/EC)** requires the reduction of possible risks posed to human health, the environment, cultural heritage and economic activities as a result of flood events. In addition, the Directive proposes the establishment of flood risk management concepts by 2015. Moreover, the Directive also provides the corresponding flood risk maps and a preliminary assessment of risks for each river basin district identified by the Member States.

The following qualitative objectives and corresponding guiding questions can be derived from the environmental policies presented above:

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>EU Water Framework Directive (2000/60/EC)</b> <b>EU Nitrates Directive (91/676/EEC)</b> <b>EU Urban Waste Water Directive (91/271/EEC)</b>	Prevention from / Reduction of water pollution (e.g. nitrates from agricultural sources or industrial recharges)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the prevention from / reduction of water pollution?</li> </ul>
<b>EU Water Framework Directive (2000/60/EC)</b>	Improvement of the ecological and chemical status of water bodies	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the improvement of the ecological and chemical status of water bodies?</li> </ul>
<b>EU Water Framework Directive (2000/60/EC)</b> <b>Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)</b>	Promotion of sustainable use of water resources (e.g. by mitigating over-exploitation of freshwater resources in agriculture)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion of the sustainable use of water resources?</li> </ul>



Environmental policy	Qualitative environmental objective	Derived guiding question
<b>EU Water Framework Directive (2000/60/EC)</b> <b>EU Floods Directive (2007/60/EC)</b>	Prevention from / Reduction of flood risks (e.g. by means of flood management such as river basin management and technical measures on flood protection)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the prevention from / reduction of flood risks (e.g. by managing flood risks)?</li> </ul>
<b>EU Urban Waste Water Directive (91/271/EEC)</b>	Promotion of management of urban waste water	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion of management of urban waste water?</li> </ul>

## 5.2 Soil

The **EU Soil Thematic Strategy (COM (2006) 231)** highlights the primary objectives for the protection of the environmental issue “Soil”. The strategy calls for soil protection by preventing and reducing contamination and degradation processes such as desertification, erosion or sealing. In addition, the preservation of the soil’s functionality and the sustainable use of soil resources, e.g. the responsible consumption of land, are outlined. The **Proposal for a Soil Framework Directive (COM (2006) 232)** draws on the main objectives noted above.

Furthermore, the **Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)** also emphasises the balanced use of soil resources.

These regulations at the EU-level are in line with the general provisions of the **UN Convention to Combat Desertification 1994 (UNCCD)**. By addressing arid, semi-arid and dry sub-humid areas, in particular, the convention aims to prevent and reduce soil degradation and to promote a sustainable use of soil resources (e.g. by encouraging land management).

The following qualitative objectives and corresponding guiding questions can be derived from the environmental policies presented above:

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>Soil Thematic Strategy (COM (2006) 231)</b> <b>Proposal for a Soil Framework Directive (COM (2006) 232)</b>	Prevention from / Reduction of soil contamination	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the prevention from / reduction of soil contamination?</li> </ul>
<b>Soil Thematic Strategy (COM (2006) 231)</b> <b>Proposal for a Soil Framework Directive (COM (2006) 232)</b> <b>UN Convention to Combat Desertification</b>	Prevention from / Reduction of soil degradation (e.g. desertification, erosion, sealing)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the prevention from / reduction of soil degradation?</li> </ul>
<b>Soil Thematic Strategy (COM (2006) 231)</b>	Preservation of the soil functionality (e.g. in environmental, economic, social and cultural terms)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the preservation of soil functions?</li> </ul>

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>Soil Thematic Strategy (COM (2006) 231)</b> <b>Proposal for a Soil Framework Directive (COM (2006) 232)</b> <b>Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)</b> <b>UN Convention to Combat Desertification</b>	Promotion of sustainable use of soil resources (e.g. by means of sustainable land management)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion of the sustainable use of soil resources (e.g. by means of land management)?</li> </ul>

### 5.3 Air and Climate

As for the environmental issue “Air and Climate”, pollution represents the key pressure, in particular with regard to the ambient air condition. In order to help curb climate change this pollution pressure needs to be reduced, so as to prevent acidification, eutrophication and ground-level ozone pollution. In recognition of this necessity, several regulations at the EU-level require the reduction of air pollution. First and foremost in this regard, the **EU Directive on ambient air quality and cleaner air for Europe (2008/50/EC)** must be considered, as it unites the Air Quality Framework Directive (96/62/EC) and three<sup>7</sup> or four of its sub-directives on particular air pollutants. The Directive stipulates the reduction of adverse effects on human health and the environment by improving the ambient air quality. For this purpose it proposes an assessment system for ambient air quality.

Additionally, the **Thematic Strategy on Air Pollution (COM (2005) 446)** specifies a number of long-term objectives for the emission reduction of certain air pollutants. In comparison to 2000 SO<sub>2</sub> emissions are to be reduced by 82 %, NO<sub>x</sub> emissions by 60 %, VOC (volatile organic compounds) emissions by 51 %, NH<sub>3</sub> by 27 % and primary particles 59% (PM 2.5 particles<sup>8</sup> emitted directly into the air) until 2020.

As climate change is global in scope there are existing agreements at the international level. The **Kyoto Protocol** which relates to the United Nations Conference on Climate Change (UNFCCC) in 1997 is illustrative of this and plays a key role in combating climate change. The protocol sets internationally binding target values for GHG emissions within a specified time period, the first one of which ended in 2012. The follow-up protocol **Kyoto II** which was adopted at the UN Conference on Climate Change (Doha 2012), defines a second commitment period from 2013 to 2020. For this period the involved parties have agreed on a reduction of GHG emissions by at least 18 % below the emission values recorded in 1990.

In light of the Kyoto Protocol the EU adopted the **Strategy on Climate Change** called “**Winning the battle against global climate change**” (COM (2005) 35) which includes

<sup>7</sup> First Daughter Directive to 96/62/EC: directive relating to the limitation of values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (1999/30/EC); second Daughter Directive to 96/62/EC: directive relating to the limitation of values for benzene and carbon monoxide in ambient air (2000/69/EC); third Daughter Directive to 96/62/EC: directive relating to ozone in ambient air (2002/3/EC)

<sup>8</sup> PM 2.5 describes a certain category of particulate matter with an aerodynamic diameter of less than 2.5 µm.

medium and long term strategies. First and foremost, it aims to reduce the temperature increase within the EU territory.

The following qualitative/quantitative objectives and corresponding guiding questions can be derived from the environmental policies presented above:

Environmental policy	Qualitative/quantitative environmental objective	Derived guiding question
<b>EU Directive on ambient air quality and cleaner air for Europe (2008/50/EC)</b> <b>Thematic Strategy on Air Pollution (COM (2005) 446)</b> <b>EU Strategy on Climate Change" Winning the battle against global climate change" (COM (2005) 35)</b>	Reduction of air pollution (e.g. to prevent acidification, eutrophication and ground-level ozone pollution)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the reduction of air pollution?</li> </ul>
<b>Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998</b> <b>EU Strategy on Climate Change" Winning the battle against global climate change" (COM (2005) 35)</b>	Protection of the climate (e.g. by mitigate global warming)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on climate protection (e.g. by developing new technologies to limit the increase in temperature)?</li> </ul>
<b>Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998</b>	Reduction of the GHG emissions (min. 18 % below 1990 in the period 2013-2020)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the achievement of international emission targets (e.g. Kyoto Protocol)?</li> <li>• Will the Specific objective have an effect on the reduction of greenhouse gas emissions?</li> </ul>

#### 5.4 Population and Human Health

The prevention and reduction of adverse effects on "Population and Human Health" caused by threats related to the environment is a major protection objective at the EU-level and beyond. This objective is implied most strongly within the **EU Health for Growth Programme (COM (2011) 709)** launched for the period 2014-2020, as it aims to prevent environmentally induced diseases and to promote good health.

Moreover, the **EU Health Strategy "Together for Health"** (2008-2013), which remains relevant for the next decade as part of the overall Strategy Europe 2020, expresses the need to protect human health by developing strategies aimed at tackling health risks and their determining factors, including the environment.

In preparation of the 7<sup>th</sup> **EAP** the Council of the EU proposes that human health and the well-being of European citizens must be protected from environmental effects.

Placing particular focus on the health and well-being of children, the prevention and reduction of negative environmental effects on human health is also reflected in the **Parma Declaration on Environment and Health 2010** formulated by the World Health Organization (WHO).

The **EU Environmental Noise Directive (END) (2002/49/EC)** was adopted in recognition of the fact that the exposure of people to (permanent) noise poses a considerable health risk. Thus, the aim of this Directive is to prevent and reduce the negative effects of environmental noise on human well-being. For this reason, the Directive calls for the creation of strategic noise maps on the part of each Member State. Similarly, the WHO also considers the adverse affects noise pressures exert on human health. As specified in its 2009 **Night Noise Guidelines for Europe** specific threshold values necessary to ensure good health are recommended. According to the guidelines, the average exposure to night noise should not exceed the recommended limit of 40 decibel (dB) per year.

Furthermore, it must be noted that adverse effects caused by the other environmental issues defined within this report can also pose a threat to human health. An example would be the pollution of water bodies, as this may have a negative effect on the quality of drinking and bathing water and can thus, in turn, be harmful to human health. Similarly, transport-related emissions which may affect the ambient air condition (e.g. particulate matter) can also have a negative effect on human well-being.

The following qualitative objectives and corresponding guiding questions can be derived from the environmental policies presented above:

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>EU Environmental Noise Directive (END) (2002/49/EC)</b> <b>WHO Night Noise Guidelines for Europe (2009)</b>	Prevention from / Reduction of environmental noise exposure	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the prevention from / reduction of the exposure by environmental noise?</li> </ul>
<b>EU Health for Growth Programme (2014-2020) (COM (2011) 709)</b> <b>EU Health Strategy "Together for Health" (2008-2013)<sup>9</sup></b> <b>WHO Parma Declaration on Environment and Health2010</b> <b>7<sup>th</sup> Environmental Action Programme</b>	Prevention / Reduction of diseases / negative health effects caused by environment-related threats	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the prevention of diseases / reduction of negative effects caused by environment-related threats?</li> </ul>

## 5.5 Fauna, Flora and Biodiversity

Biodiversity describes the richness of living organisms and their respective environment. It includes both the diversity within and between species as well as the diversity of entire ecosystems. The uniqueness of this natural diversity is to be protected.

<sup>9</sup> The European Commission evaluated the EU Health Strategy in 2011. The evaluation recognised that the strategy acts as a reference for actions taken at national and EU levels and confirmed that the principles and objectives identified in 2007 remain valid for the next decade in the context of Europe 2020 (European Commission 2013e)

Reducing the rate of biodiversity loss and ecosystem services is the main objective of the **EU 2020 Biodiversity Strategy**. In addition, green infrastructure<sup>10</sup> is also to be promoted. This strategy is in line with the international commitment of the **UN Convention on Biological Diversity** (Rio “Earth Summit”).

The protection of endangered species is another protection objective. The **IUCN Global Species Programme** plays an important role in this regard, as it provides the “Red List of Threatened Species”. In order to help protect endangered species the “Red List” assesses the conservation status of various species at the global level and highlights the degree to which they are endangered and threatened by extinction.

The **EU Habitats Directive (92/43/EEC)** generally aims to protect and promote biodiversity. Particular focus is placed hereby on both the protection of endangered species (animals and plants) as well as on the protection and promotion of natural habitats. Together with the **EU Birds Directive (2009/147/EC)** which was adopted accordingly to protect wild birds and their natural habitats, the two Directives form the vital basis for nature protection within the EU. Most notably, the Habitats Directive has resulted in the establishment of the EU-wide network of protected areas NATURA 2000 which aims to promote and assure the long-term protection of threatened species and habitats.

The following qualitative objectives and corresponding guiding questions can be derived from the environmental policies presented above:

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>EU Habitats Directive (92/43/EEC)</b> <b>EU 2020 Biodiversity Strategy</b> <b>UN Convention on Biological Diversity</b>	Protection and promotion of biological diversity	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the protection and promotion of biological diversity?</li> </ul>
<b>EU Birds Directive (2009/147/EC)</b> <b>EU Habitats Directive (92/43/EEC)</b> <b>IUCN Global Species Programme</b>	Protection of endangered species (animals and plants)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the protection of endangered species (animals and plants)?</li> </ul>
<b>EU Birds Directive (2009/147/EC)</b> <b>EU Habitats Directive (92/43/EEC)</b>	Protection and promotion of natural habitats (e.g. within the NATURA 2000 network)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the protection and promotion of natural habitats (e.g. by designating NATURA 2000 or other protected areas)?</li> </ul>

<sup>10</sup> Green infrastructure is characterized by its multi-functionality. It includes natural and semi-natural areas, features and green spaces in different spatial areas e.g. rural and urban areas. Green Infrastructure helps to conserve and create valuable landscape features which, in turn, contribute to the provision of ecosystem services and biodiversity (European Commission 2013a).

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>EU 2020 Biodiversity Strategy</b>	Protection of ecosystems	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the protection of ecosystems?</li> <li>• Will the Specific objective have an effect on the strengthening of the concept of ecosystem services in other relevant sectors?</li> <li>• Will the Specific objective have an effect on the introduction of the concept of ecological connectivity to other relevant sectors (transport, settlement, spatial planning)?</li> </ul>
<b>EU 2020 Biodiversity Strategy</b>	Promotion of green infrastructure	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion green infrastructure?</li> </ul>

## 5.6 Cultural Heritage and Landscape

The UNESCO **World Cultural and Natural Heritage Convention 1972** is today still the main policy for the protection and preservation of cultural and natural heritage at the international level. The convention initiated the World Heritage Programme which promotes the conservation of several tangible and intangible significant sites. At present, 962 World Heritage Properties (745 cultural, 188 natural and 29 mixed properties) are listed, of which 48 % are located in Europe and Northern America<sup>11</sup>.

At the **European Landscape Convention 2000** the parties agreed, above all, on the protection and preservation of cultural and natural landscapes. Furthermore, the convention not only encouraged the sustainable management and planning of European landscapes, but also advocated for heightened cooperation between the EU Member States with regard to landscape related issues.

Moreover, the **EU Thematic Strategy on the Urban Environment (COM (2005) 718)** takes up issues ranging from urban sprawl to intensified soil sealing, as both can effect the appearance of urban landscapes and their surrounding areas.

The **Resolution 1924 (2013) on Industrial Heritage in Europe** of the Council of Europe aims at the preservation and conversion to new uses of the European industrial heritage sites.

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<sup>11</sup> UNESCO 2013

The following qualitative objectives and corresponding guiding questions can be derived from the environmental policies presented above:

Environmental policy	Qualitative environmental objective	Derived guiding questions
<b>UNESCO World Cultural and Natural Heritage Convention 1972</b>	Protection and preservation of cultural heritage	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the protection and preservation of cultural heritage?</li> </ul>
<b>European Landscape Convention 2000</b> <b>EU Thematic Strategy on the Urban Environment (COM (2005) 718)</b>	Protection and preservation as well as sustainable management and planning of European cultural and natural landscape	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the protection and preservation of cultural and natural landscapes?</li> <li>• Will the Specific objective have an effect on the promotion of sustainable management and planning of cultural and natural landscapes?</li> <li>• Will the Specific objective have an effect on the integration of renewable energy use and protection of cultural landscapes?</li> </ul>
<b>Resolution 1924 (2013) on Industrial Heritage</b>	Preservation and conversion to new uses of European industrial heritage sites	<ul style="list-style-type: none"> <li>• Will the specific objective have an effect on the preservation and conversion to new uses of European industrial heritage sites?</li> </ul>

## 5.7 Cross-cutting themes

“Waste and Material Resources”, “Energy Resources” as well as “Mobility and Transport” are identified as cross-cutting fields of action. Due to their influence on several of the defined environmental issues, these themes are included in specific EU policies. Thus, a clear assignment of these cross cutting themes to the defined environmental issues is difficult.

### Waste and Material Resources

Regarding the cross-cutting theme “Waste and Material Resources” regulations are primarily based on the **EU Waste Framework Directive (2008/98/EC)**. This Directive aims to reduce the amount of generated waste and to promote sustainable waste management. Thus, the EU Waste Framework Directive contributes to the protection of the environment and human health from adverse effects on the one hand and to the sustainable use of material resources (as waste is considered a secondary raw material) on the other. The objective to promote the sustainable use of these material resources is also reflected in the **EU Thematic Strategy on the Sustainable Use of Natural Resources** and the **7<sup>th</sup> EAP**.

The disposal of waste primarily concerns the environmental issues “Water” and “Soil”, as discharged harmful substances such as chemicals and pesticides pollute water and soil bodies. Furthermore, landfills take up large areas of land. The environmental issue “Air and Climate” is affected by pollutants which are released directly into the atmosphere and include CO<sub>2</sub> and CH<sub>4</sub>. Ultimately, this has a negative effect on human health as well as on the flora and fauna.

The following qualitative objectives and corresponding guiding questions can be derived from the cross-cutting theme presented above:

Environmental policy	Qualitative environmental objective	Derived guiding question
<b>EU Waste Framework Directive (2008/98/EC)</b>	Reduction of the volume of waste	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the reduction of the waste volume?</li> </ul>
<b>EU Waste Framework Directive (2008/98/EC)</b>	Promotion of sustainable waste management to protect human health and the environment and to use waste as a resource (e.g. by recycling)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion of sustainable waste management (e.g. by recycling)?</li> </ul>
<b>Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)</b> <b>7<sup>th</sup> Environmental Action Programme</b>	Promoting of sustainable use of material resources	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion of sustainable use of material resources?</li> </ul>

### Energy Resources

The newly adopted **EU Energy Efficiency Directive (2012/27/EU)** must be considered with the EU 2020 Strategy in mind. In line with one of the headline targets specified in this strategy the Directive aims to improve energy efficiency by achieving 20 % primary energy savings until 2020. As high energy efficiency is achieved by lower carbon levels, another objective is to reduce carbon dioxide emissions as one of the major GHGs by 20 % until 2020. The **EU Energy Efficiency Action Plan 2011** corresponds to the Directive, as it aims to reduce primary energy consumption and to implement low carbon systems. In preparation of the **7<sup>th</sup> EAP** energy efficiency is reflected in the second thematic priority objective “Boost sustainable resource-efficient low-carbon growth”.

Furthermore, the Energy Efficiency Directive is consistent with the **EU Renewable Energy Directive (RED) (2009/28/EC)** which promotes an increase in the share of renewable energy sources. According to the EU 2020 Strategy, a share of 20 % of renewables is to be achieved by 2020.

Measures of energy generation and consumption influence the environmental issue “Air and Climate” most intensely, as the related emissions are released into the atmosphere where they contribute to the Greenhouse effect. Depending on how energy resources are used and energy is generated other environmental issues such as “Water”, “Soil”, “Cultural and Natural Heritage and Landscape” and “Fauna, Flora and Biodiversity” are also affected. Possible effects include the exploitation of water for cooling purposes, extensive land take and soil degradation as well as the fragmentation of landscapes and ecosystems.



The following qualitative/quantitative objectives and corresponding guiding questions can be derived from the cross-cutting theme presented above:

Environmental policy	Qualitative/quantitative environmental objective	Derived guiding questions
<b>Energy Efficiency Directive (2012/27/EU)</b> <b>Energy Efficiency Action Plan (2011)</b> <b>7<sup>th</sup> Environmental Action Programme</b>	Improvement of energy efficiency (by 20 % by 2020)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the improvement of energy efficiency?</li> </ul>
<b>Energy Efficiency Directive (2012/27/EU)</b> <b>EU Renewable Energy Directive (RED) (2009/28/EC)</b> <b>EU Climate and Energy Package 2020</b>	Increase of use of renewables (20 % of renewable energy by 2020)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the increase of the use of renewable energy?</li> </ul>
<b>Energy Efficiency Directive (2012/27/EU)</b> <b>Energy Efficiency Action Plan (2011)</b> <b>EU Climate and Energy Package 2020</b>	Reduction of GHG emissions (by 20 % by 2020)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the reduction of GHG emissions?</li> </ul>

## Mobility and Transport

According to the **EU White Paper 2011 – Roadmap to a Single European Transport Area** sustainable mobility and transport systems must be promoted and transport-related carbon emissions reduced. Accordingly, the White Paper aims to ensure that 50 % of medium distance intercity passenger and freight journeys be shifted from road to rail and waterborne transport by 2050. Moreover, the use of sustainable low carbon fuels in aviation and the reduction of shipping emissions are to be promoted. Taken together, these measures intend to achieve a reduction of transport-related carbon emissions by 60 % until 2050. Given that urban mobility accounts for a large share of transport-related pollution (e.g. 40 % of all CO<sub>2</sub> emissions in road transportation), the significance of urban mobility has been an intensely discussed issue since 2007. On the basis of the Green Paper the **EU Action Plan on Urban Mobility (COM (2009) 490)**<sup>12</sup> was prepared. The Action Plan proposes 20 initiatives aimed at encouraging sustainable urban mobility and includes campaigns for the promotion of sustainable mobility behaviour and intelligent transport systems (ITS).

“Mobility and Transport” is viewed as a cross-cutting theme, as the different modes of transport (road, rail, air, maritime and inland waterways) affect the corresponding environmental issues “Soil”, “Air and Climate” and “Water”. This is particular true with regard to pollution, as carbon dioxide is, for example, one of the major GHG transport-related emissions and contributes significantly to climate change. Furthermore, the construction of transportation infrastructure can lead to the fragmentation of landscapes and ecosystems. In

<sup>12</sup> In 2012, the European Commission initiated a consultation process to conduct a review of the implementation of the Action Plan and to assess whether further actions are needed.

addition, higher levels of mobility also effect human health, as people are increasingly exposed to emissions such as particulate matter and transport-related noise.

The following qualitative/quantitative objectives and corresponding guiding questions can be derived from the cross-cutting theme presented above:

Environmental policy	Qualitative/quantitative environmental objective	Derived guiding question
<b>EU White paper 2011 - Roadmap to a Single European Transport Area</b> <b>EU Action Plan on Urban Mobility (COM (2009) 490)</b>	Promotion of sustainable mobility and transport systems (e. g. by a shift of medium distance intercity passenger and freight from road to rail and waterborne modes of transport)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the promotion of sustainable mobility and transport systems?</li> </ul>
<b>EU White paper 2011 - Roadmap to a Single European Transport Area</b>	Reduction of carbon emissions in transport (by 60 % by 2050) (e. g. by increasing the use of sustainable fuels in aviation)	<ul style="list-style-type: none"> <li>• Will the Specific objective have an effect on the reduction of emissions related to transport (aviation, road traffic, shipping etc.)?</li> </ul>

## 6. Current state of the environment and its likely evolution without the implementation of the OP CE 2020

This chapter provides a description of the aspects relevant to the current state of the environment within the programme area of CE 2020 and includes its likely evolution without the implementation of the OP CE 2020 (the so-called zero-option scenario). The description of the current state of the environment includes an overview of the relevant environmental characteristics which are likely to be affected as well as of existing environmental problems within the CE 2020 programme area.

### 6.1 Methodology

In order to depict the current state of the environment within the programme area of CE 2020, the status quo of the defined environmental issues is considered. The main characteristics of these environmental issues are described using corresponding indicators. The environmental issues and their corresponding indicators were identified on the basis of the legal framework provided by the European Union (cf. Chapter 4.1) and have been revised as part of the scoping consultation process.

Alongside other sources, the description is primarily based on data provided by Eurostat as well as on data published by the EEA and the European Commission. Further secondary sources were gathered during detailed and systematic desk research. Published by the European Environmental Agency, for example, “The European Environment - State and Outlook 2010” (EEA 2010) provides important background information in this context.

With regard to the depth of data used, the current state of the environment is described as outlined in chapter 4.1. This is particularly important to note for Italy and Germany, as only parts of these countries are participating in the CE 2020 Programme. The same goes for Croatia, as the country only recently joined the EU and is thus a new member of CE 2020.

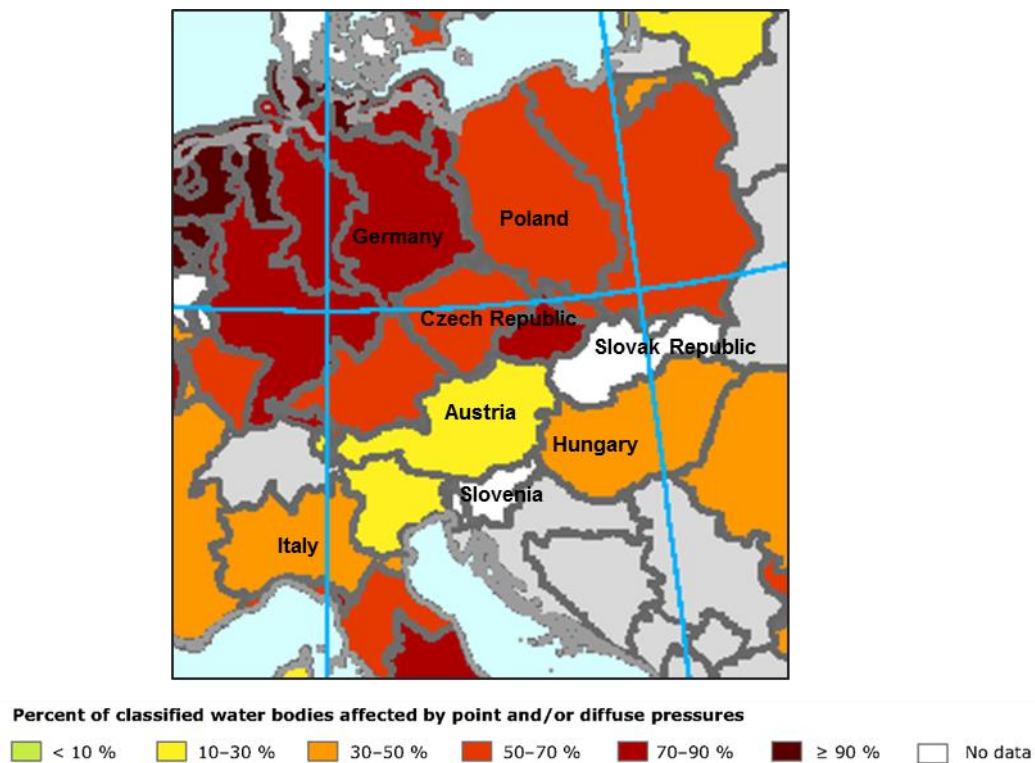
The zero-option scenario describes the anticipated development of environmental factors in the programme area without the implementation of the Operational Programme CENTRAL EUROPE 2020. Thus, it forms the baseline for the subsequent assessment of the potential effect of OP CE 2020 on the environment. Based on data providing an appropriate forecast horizon of up until 2020 (cf. Chapter 4), the likely evolution of the environment is estimated on a qualitative basis for each of the environmental issues. Given the limited availability of trend data, however, it must be noted that a description of the future development of the CE 2020 programme area is difficult. Furthermore, the general trends identified for the whole CE 2020 programme area are difficult to isolate and break down for individual sub-regions.

The cross-cutting themes and their corresponding indicators are assigned to the environmental issues that are affected most significantly by each respective theme. Accordingly, the theme “Waste and Material Resources” is assigned to “Soil” and the themes “Energy Resources” and “Mobility and Transport” to the environmental issue “Air and Climate”.

## 6.2 Water

As the basis of all organic life and health, high water quality is vital for both the population and ecosystems. Thus, the achievement and maintenance of high ecological standards for all European water bodies is of central importance (cf. Chapter 5.1). As European waters are, however, often affected by pollution, water scarcity and floods a set of widely acknowledged indicators of “water quality” is used to describe the current state of the environmental issue “Water” within the CE 2020 programme area. Further indicators which refer to water resource use and flood-related risks are considered in the following.

Generally speaking, water quality is affected by organic and inorganic pollution caused by agriculture, industry and private households (e.g. fertilizer, pesticides and heavy metals). With regard to pollution pressures existent within the CE 2020 programme area, more than 50 % of the water bodies in most Member States are affected quite strongly by pollution. Austria and parts of Italy represent an exception, however, as less than 30 % of water bodies are affected by pollution pressures in these two Member States (cf. Figure 7)



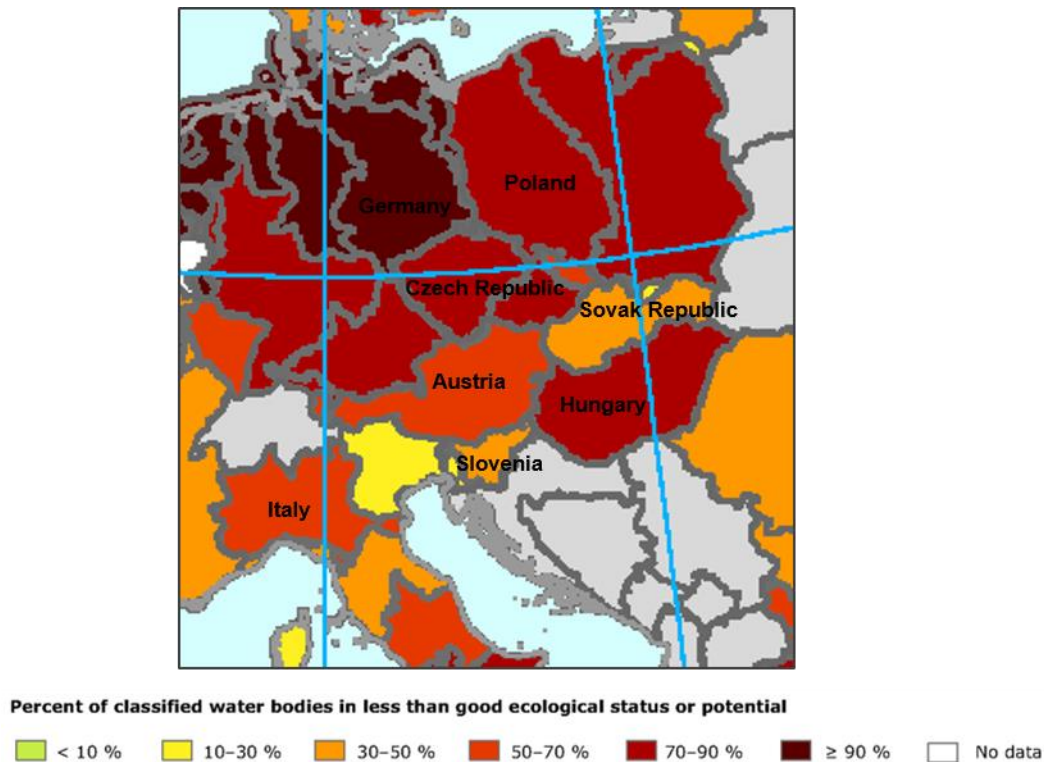
**Figure 7: Proportion of classified surface water bodies in different RBDs<sup>13</sup> affected by pollution pressures (2005-2009)**

Source: European Environmental Agency 2012e

As the pollution pressures mentioned above have an effect on the water quality, the ecological status of water bodies indicates whether the water quality can be considered good or poor. As shown in an exemplary manner for rivers and lakes in Figure 7, a large proportion of water bodies in the CE 2020 programme area is characterised by a poor ecological

<sup>13</sup> Reference Data Base

status or potential<sup>14</sup> (cf. Figure 8). Particularly affected in this regard are water bodies in Poland, the Czech Republic and Hungary as well as also in the participating parts of Germany participating in the CE Programme. Less affected on the other hand are water bodies in the Slovak Republic, Slovenia and, to some extent, also in the participating parts of Italy.



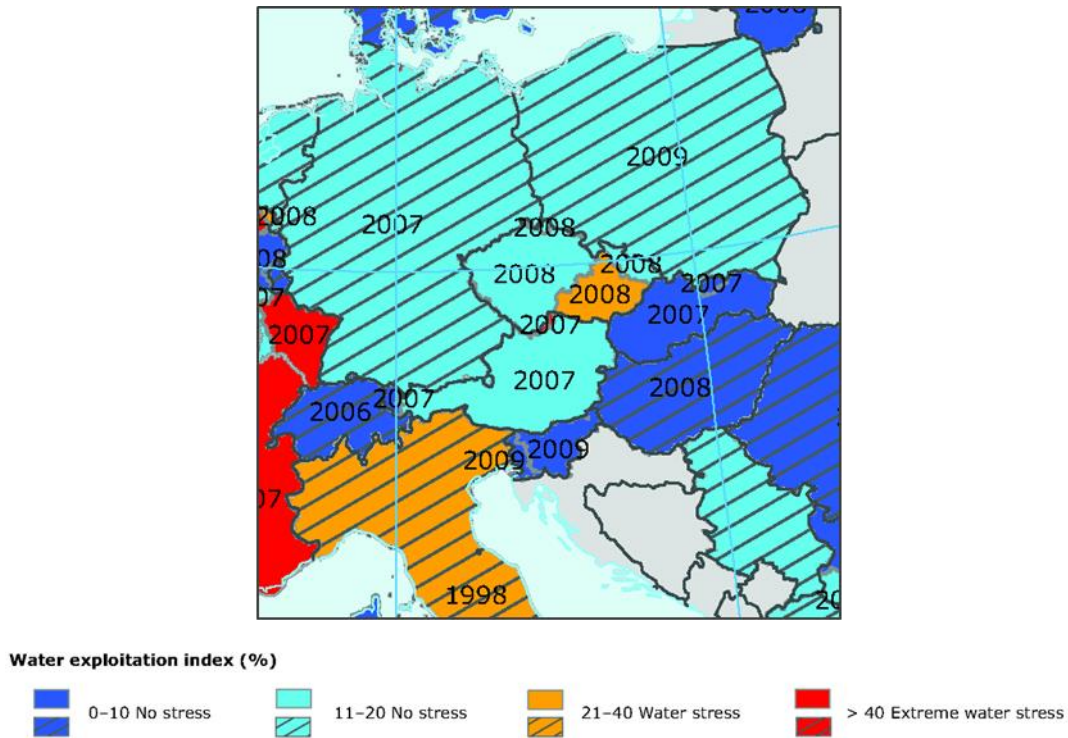
**Figure 8: Proportion of classified surface water bodies in different RBDs<sup>15</sup> characterised by less than good ecological status or potential (2005-2009)**

Source: European Environmental Agency 2012d

The Water Exploitation Index (WEI) is an indicator which represents the level of water stress, i.e. how sustainably water resources are used. Figure 9 shows that the majority of water resources within the CE 2020 programme area are not or only slightly stressed as a result of unsustainable water use. An exception to this are, however, the parts of Italy and the Czech Republic which belong to the OP CE 2020 area, as some regions display an index value of 21 to 40 % and thus imply that an overexploitation of water resources is taking place. In broad comparison to the southern parts of the EU, however, the Member States of the OP CE 2020 are not greatly affected by this problem.

<sup>14</sup> Amongst other things, the ecological status or potential of water bodies is influenced by the nutrient input which has an effect on organisms living in the water.

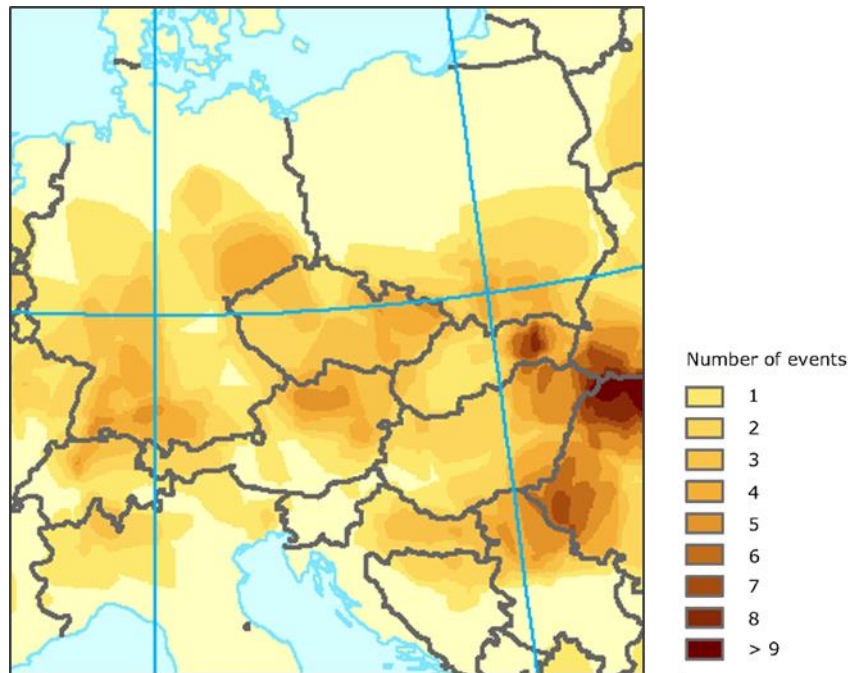
<sup>15</sup> Reference Data Base



**Figure 9: Water Exploitation Index in the smallest available data disaggregation**

Source: European Environmental Agency 2012i

The occurrence of flood events is also an indicator that characterises the environmental issue “Water”. Although to differing degrees, all parts of the CE 2020 programme area were affected by flood events in the period from 1998 to 2009 (cf. Figure 10). With as many as eight flood events on record, Hungary and the Slovak Republic are characterised by the highest flood frequency in this time period. Similarly, Austria, Croatia and the Czech Republic as well as the southern parts of Germany and the southern part of Poland also show an increase in the number of flood events.



**Figure 10: Occurrence of major floods in Europe (1998-2009)**

Source: European Environmental Agency 2012f

### Zero-option scenario

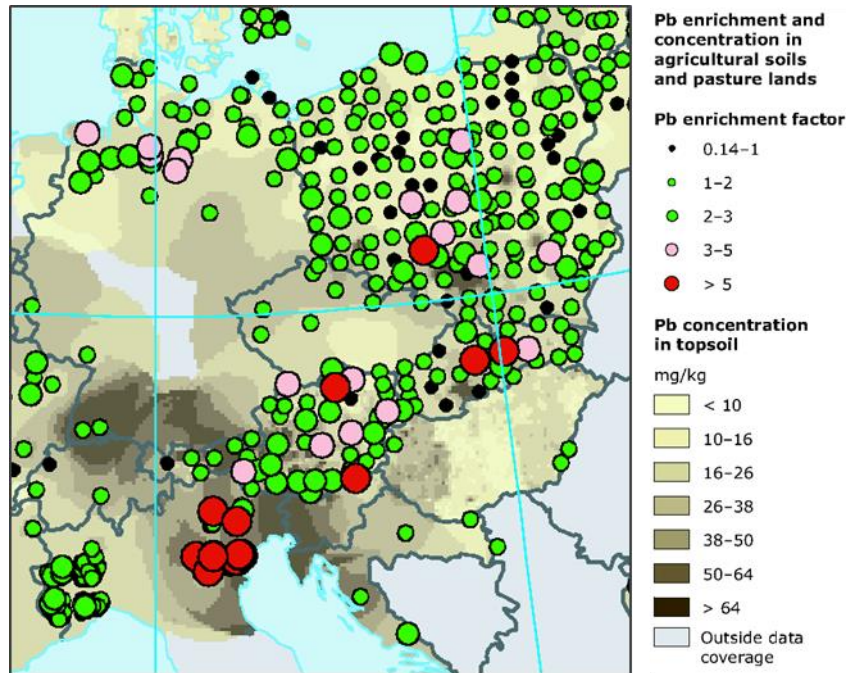
Given the fact that the protection and control of water bodies is subject to several EU legislations, a positive development within the CE 2020 programme area will most likely be promoted. This is particularly true with regard to water quality. Already initiated aspects include processes geared towards the mitigation of pressures which effect the ecological status and relate, for example, to the improvement of waste water treatment and the reduction of nitrate pollution. Thus, the improvement of water quality is making steady progress. With regard to the corresponding regulation a decrease in the overexploitation of water resources can even be expected without implementation of the OP CE 2020. As for climate change and its effects on the environment, an increase in precipitation can be assumed. Accordingly, regions where flood events occur regularly are likely to be affected by a further increase in flood frequency and intensity.

### **6.3 Soil**

Given that the environmental issue “Soil” and its diverse functions provide the basis for humans and their economic activities, the key objective is to reduce and prevent pressures on this vital resource (cf. Chapter 5.2). Adverse effects on soil can, amongst other issues, stem from degradation processes such as erosion, landslides or sealing. Moreover, soil functions are often affected by contamination caused by industrial or commercial activities as well as by waste disposal. Thus, the cross-cutting theme “Waste and Material Resources” is considered in terms of how waste is treated. The description of the current state of soil within the programme area of CE 2020 is based on indicators which correspond to the threats mentioned above.

Heavy metals are one of the main contaminants found in soil. Using the example of lead (Pb) Figure 11 shows that increasing topsoil concentrations of this heavy metal are primarily

located in the Southern parts of the CE 2020 programme area. Particularly high concentrations of lead are observable in Croatia, Austria and Slovenia as well as in the Eastern part of Italy and the Southern part of Germany belonging to the OP CE 2020. In contrast, the concentration of lead in topsoil is relatively low in Poland and also in most parts of Hungary. Isolated spots of extremely high lead concentrations can be identified in the participating parts of Italy, Austria, Poland and the Slovak Republic where a lead enrichment factor greater than 5 is observable.

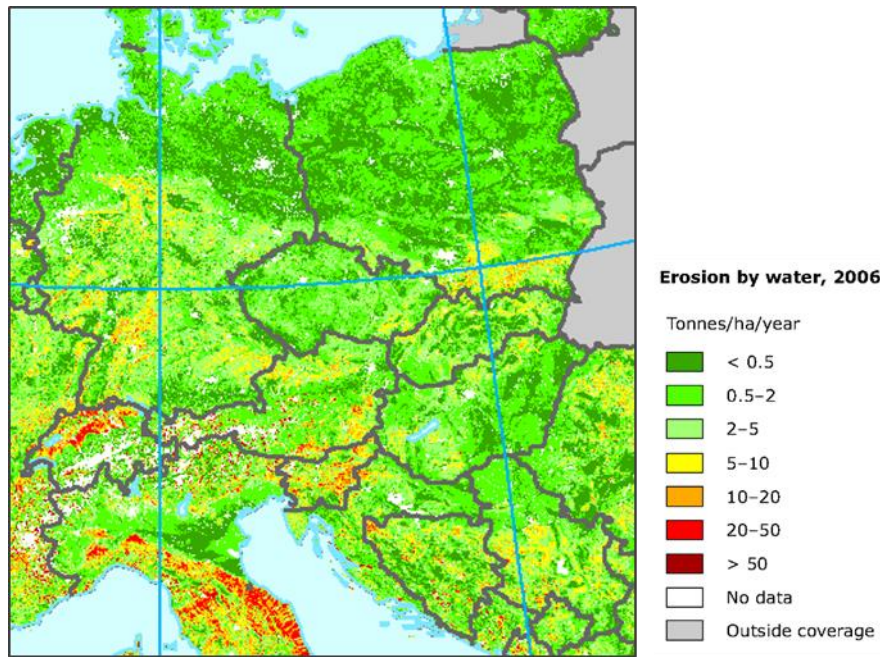


**Figure 11: Soil contamination by heavy metals in agricultural soils and pasture lands (2006)**

Source: European Environmental Agency 2012g

Degradation processes of soil erosion are primarily induced by water and wind. With regard to erosion by water, the whole CE 2020 programme area is only slightly affected (cf. Figure 12). Whereas in most parts of the programme area the erosion rate induced by water is lower than 5 tonnes/ha/year, isolated areas where soil erosion induced by water has increased can be identified in the participating parts of Italy, Austria and Slovenia.





**Figure 12: Estimated soil erosion by water in Europe (2006)**

Source: European Environmental Agency 2012h

With regard to soil erosion by wind a similar situation is observable. Particularly noticeable in this case is, however, the strong effect wind has on the coastal areas of the programme area which include Croatia, Poland and the participating parts of Germany.<sup>16</sup>

As for susceptibility to landslides, the regions of the CE 2020 programme area characterised by mountain ranges such as the Alps and the Carpathians are particularly affected. Thus, a very high landslide risk can be identified for Austria, Slovenia and the participating parts of Italy.<sup>17</sup>

With respect to soil degradation as a result of sealing, urban agglomerations such as the capital regions of the Member States show a particularly high degree of surface sealing. This is due to the fact that these areas are commonly characterised by extensive sealing processes.<sup>18</sup>

Regarding the cross-cutting theme “Waste and Material Resources” it must be noted that municipal waste in Europe is primarily treated by land filling (cf. Figure 13). Whereas the landfill share of total waste is particularly high in Croatia, the Czech Republic and the Slovak Republic waste in Germany and Austria is rarely disposed of in land-fill sites. Instead, Germany is characterised by the highest share of waste recycling and Austria the highest share of waste composting.

<sup>16</sup> European Environmental Agency 2012j

<sup>17</sup> Institute for Environment and Sustainability 2013

<sup>18</sup> European Environmental Agency 2012k

Member State of the OP CE 2020	Treatment of waste in %			
	Landfilled	Incinerated	Recycled	Composted
Czech Republic	65	18	15	2
Germany	1	37	45	17
Italy	49	17	21	13
Hungary	67	11	17	5
Austria	3	35	28	34
Poland	71	1	11	17
Slovenia	58	2	34	6
Slovak Republic	78	11	5	6
Croatia	92	0	8	1

**Figure 13: Municipal waste treatment within the programme area of CE 2020 (2011)**

Source: Eurostat 2013a

#### Zero-option scenario

Soil resources within the CE 2020 programme area are exposed to several risks. Whereas contamination tends to affect soil most strongly, erosion pressures are likely to have only a limited effect on soil resources in the CE 2020 programme area in the future. With regard to landslides, further effects on regions in which landslides are already quite common can be expected. Given that extensive soil sealing activities are primarily concentrated in urban agglomerations, it can be assumed that this trend will continue. Although the environmental issue “Soil” is threatened by a number of factors, it is still insufficiently considered within specific regulations.

The cross-cutting theme “Waste and Material Resources” plays a special role. In light of specific regulations for waste treatment existent at the EU-level, further efforts geared towards both the reduction of land filling as the main form of waste treatment and the encouragement of recycling can be expected within the CE 2020 programme area.

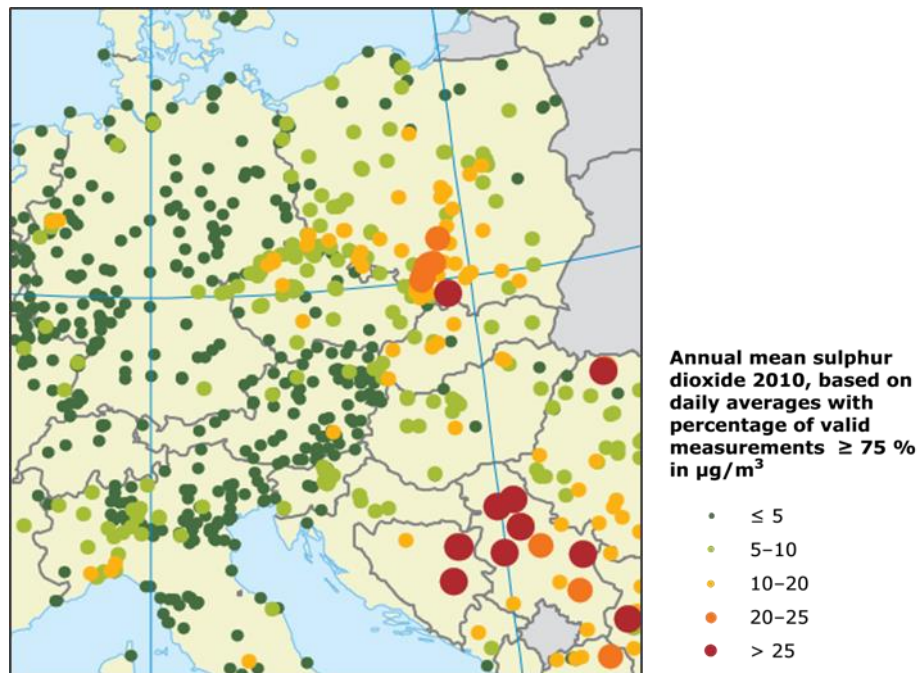
## **6.4 Air and Climate**

Given that clean air is vital for both human health and the environment, the EU continually strives to improve the air quality (cf. Chapter 5.3). As a result of large-scale industrial and energy production as well as increasing levels of traffic and fossil fuel combustion, however, human activities are effecting the ambient air quality and thus inducing adverse effects on both the environment and the well-being of the population. Amongst others, the main pollutants include sulphur dioxide, carbon monoxide and benzene. Widely acknowledged as the key cause of the green house effect, so-called greenhouse gases (GHG) such as carbon dioxide, ozone, methane and nitrous oxide also play a role. Taken together, they not only exert a strong effect on climate conditions, but also contribute greatly to global warming.

For the characterisation of the environmental issue “Air and Climate” the indicators considered primarily relate to the emission values of several air pollutants.

Given that energy production and traffic are identified as two main sources of pollution, the emission-related characteristics of the cross-cutting themes “Energy Resources” and “Mobility and Transport” are analysed.

Within the CE 2020 programme area, the air pollution caused by sulphur dioxide<sup>19</sup> is used as an exemplary indicator for the ambient air quality. As shown in Figure 14 the majority of the Member States within the CE 2020 programme area do not exhibit extremely high sulphur dioxide concentrations. Having said this, isolated spots in the Czech Republic, the Slovak Republic, Hungary, and Austria as well as in the participating parts of Italy exhibit slightly higher concentration levels. Regarding some parts of Poland (in particular towards the Southern border), these parts indicate a relative high sulphur dioxide concentrations.



**Figure 14: Annual mean SO<sub>2</sub> concentrations ( $\mu\text{g}/\text{m}^3$ ) (2010)**

Source: European Environmental Agency 2012a

Looking at the development of GHG emissions within the CE 2020 programme area, a decrease in GHG emission values since 2000 is observable for all Member States except Poland, Austria and Slovenia (cf. Figure 15). With regard to achieving the Kyoto targets specified for the period 2008-2012, the majority of CE 2020 Member States have not exceeded the defined threshold values (based on the GHG emissions recorded for 2010). Only Austria, Italy and Slovenia failed to comply with the defined Kyoto targets for the period 2008-2012.

<sup>19</sup> Amongst others, sulphur dioxide is produced by the energy sector. It contributes to acid rain which has a negative effect on the environment and the well-being of humans.

Member State of the OP CE 2020	2000	2005	2010	Kyoto targets 2008-2012
Czech Republic	75	75	72	92.0
Germany	84	81	76	79.0
Italy	107	111	97	93.5
Hungary	67	69	59	94.0
Austria	102	118	107	87.0
Poland	68	69	71	94.0
Slovenia	92	100	96	92.0
Slovak Republic	68	71	64	92.0
Croatia	n.a.	n.a.	n.a.	n.a.

**Figure 15: Total greenhouse gas emissions 2000-2010 compared with the Kyoto targets 2008-2012 ( Kyoto base year = 100)**

Source: Eurostat 2013b

With regard to the cross-cutting theme “Energy Resources”, energy consumption levels are less relevant to drawing conclusions on emissions released into the ambient air. More suitable in this case is the share of energy consumption attributable to the various energy sources. As renewable energies are considered a more efficient and low GHG emission energy source, the share of renewable energies in the gross final energy consumption is presented in the following. As shown in Figure 16 all CE 2020 Member States achieved an increase in the share of renewable energies in the gross final energy consumption from 2005 to 2011. Particularly high in this regard is the share of renewable energies in Austria (30.9 %), Slovenia (18.8 %) and Croatia (15.7 %) in 2011.

Member State of the OP CE 2020	2005	2008	2011
Czech Republic	6.1	7.6	9.4
Germany	6.0	8.4	12.3
Italy	5.1	6.9	11.5
Hungary	4.5	6.5	9.1
Austria	23.8	28.3	30.9
Poland	7.0	7.9	10.4
Slovenia	16.0	15.0	18.8
Slovak Republic	6.6	8.1	9.7
Croatia	14.1	12.2	15.7

**Figure 16: Share of renewable energies in gross final energy consumption in % (2005-2011)**

Source: Eurostat n.d. b

With regard to the cross-cutting theme “Mobility and Transport” conclusions on transport-related emissions can be derived, for example, from the indicator “modal split”. A differentiation must hereby be made, however, between “freight transport” and “passenger transport”.

With view to the modal split of inland freight transport Figure 17 shows that inland freight transport within the CE 2020 programme area is clearly dominated by road transportation, followed at some distance by railway transportation. With the exception of Germany and Croatia, inland waterways play a less significant role. Apart from Austria and Germany, where the significance of rail transport has grown, the share of freight transport by road has increased in the CE 2020 Member States from 2000 to 2010. In Poland and the Slovak Republic, in particular, the share of road transportation has increased by almost 25 %. This high proportion of freight transport conducted by road results in increasing CO<sub>2</sub> emissions which have an adverse effect on both the climate and air quality.

Member State of the OP CE 2020	2000			2010		
	Roads	Railways	Inland waterways	Roads	Railways	Inland waterways
<b>Czech Republic</b>	68.0	31.9	2,6	79.0	21.0	0.1
<b>Germany</b>	65.3	19.2	15.5	64.9	22.2	12.9
<b>Italy</b>	89.0	11.0	0.1	90.4	9.6	0.1
<b>Hungary</b>	68.1	28.8	3.1	75.1	19.6	5.3
<b>Austria</b>	64.8	30.6	4.5	56.3	39.0	4.7
<b>Poland</b>	57.4	42.6	0.9	80.6	19.4	0.1
<b>Slovenia</b>	71.9	28.1	n.a.	82.3	17.7	n.a.
<b>Slovak Republic</b>	53.0	41.7	5.3	74.8	22.0	3.2
<b>Croatia</b>	n.a.	n.a.	n.a.	71.2	21.2	7.6

**Figure 17: Modal split in inland freight transport (% of total inland tkm) 2000 and 2010**

Source: Eurostat 2012a

Figure 18 provides an overview of the modal split in inland passenger transport for the CE 2020 Member States. As shown in the table below the majority of passengers travel by car followed by buses, railways, trams and metros. As shown for 2000 and 2010, the share of passenger cars and buses remains relatively stable, with the former exhibiting a slight increase. With the exception of Austria, Croatia and Germany, the relevance of railways, trams and metros as modes of transport has decreased from 2000 to 2010.

Member State of the OP CE 2020	2000			2010		
	Passenger cars	Buses	Railways, Trams and Metros	Passenger cars	Buses	Railways, Trams and Metros
Czech Republic	73.1	18.6	8.3	73.7	18.7	7.6
Germany	85.2	7.1	7.7	85.9	6.1	8.0
Italy	83.5	10.8	5.7	82.3	12.2	5.5
Hungary	62.1	25.0	12.9	63.1	25.1	11.8
Austria	79.2	11.0	9.8	78.2	10.6	11.2
Poland	72.8	15.4	11.7	88.4	6.4	5.2
Slovenia	82.9	14.3	2.9	86.8	10.8	2.5
Slovak Republic	64.4	27.8	7.7	77.8	15.5	6.7
Croatia	81.4	13.6	5.1	85.4	9.0	5.6

**Figure 18: Modal split in passenger transport (% in total inland passenger-km) 2000 and 2010**

Source: Eurostat 2012b

#### Zero-option scenario

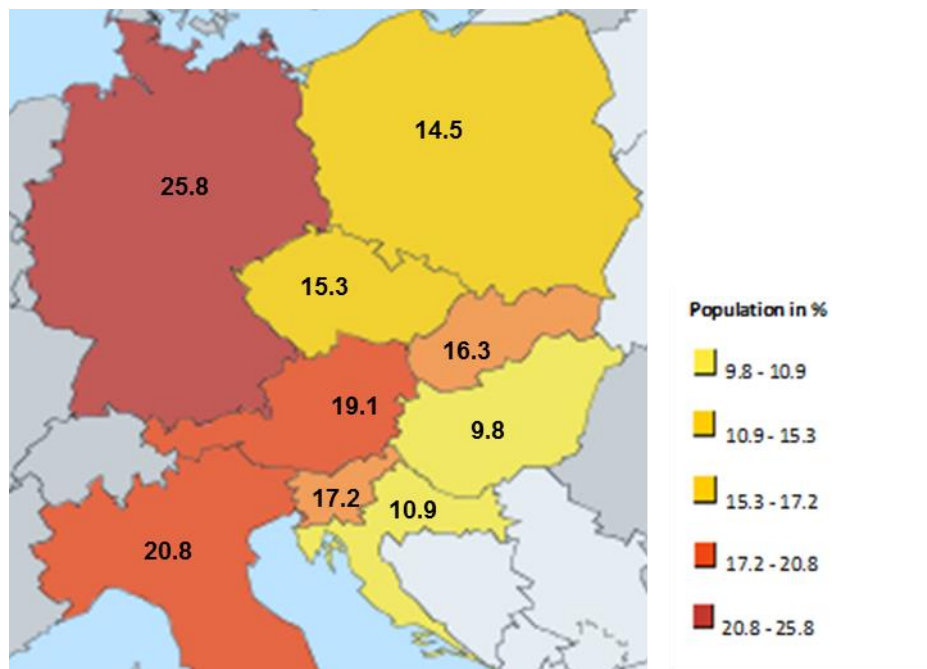
Ensuring a clean ambient air condition and mitigating negative climatic effects are one of the central European topics. Existing efforts aimed at reducing the concentration of air pollutants such as SO<sub>2</sub> already exhibit positive results and render higher pollution concentrations somewhat rare. For this reason, the continuation of this positive development can be deemed likely, even without implementation of the OP CE 2020. Whilst a similarly positive trend is also observable with regard to the reduction of GHG emissions, potential for further reductions still exist. With regard to “Energy Resources”, the share of renewable energies in the gross final energy consumption has increased which has also had a positive effect on the pollution levels of ambient air. In light of recent EU legislation with explicit links to renewable energy sources, further attempts to promote renewable energies alongside the CE 2020 can be expected. Given that transportation via road dominates the transport sector, the development of sustainable forms of transport will most likely require further promotion, even in the absence of the OP CE 2020.

## 6.5 Population and Human Health

Humans are constantly exposed to environmental influences. Due to this close relationship, environmental factors can have an adverse effect on human health and well-being in multiple ways. Particular risk factors in this regard relate to (permanent) noise pollution and ambient air pollution caused, for example, by particulate matter or ozone. In recognition of these risks, various regulations at the EU and international level aim to improve human health and well-being by creating cleaner and healthier environmental conditions (cf. Chapter 5.4).

With regard to the environmental issue “Population and Human health” the current state within the CE 2020 programme area is depicted using indicators which refer to the health risks mentioned above.

Noise pollution belongs to the risk factors that effect human health most significantly. Noise exposure tends to vary throughout the day and is particularly problematic during the night, as it often results in sleep disturbances<sup>20</sup>. Furthermore, noise pollution is accompanied by effects ranging from simple irritation to complex psychophysiological effects, but can also result in more serious consequences including cardiovascular diseases such as hypertension<sup>21</sup>. The main sources of noise are traffic (air, railway and road), construction works and industry. Within the Member States of the OP CE 2020 an average of almost one fifth of the population (own calculation based on Eurostat data) living in households feels exposed to noise. Figure 19 provides a differentiated picture of noise exposure within the CE 2020 programme area: The highest noise exposure ratio of 25.8 % is observable in Germany, followed by 20.8 % in Italy and 19.1 % in Austria. In contrast, the effect of noise pollution on people in Croatia (10.9 %) and Hungary (9.8 %) is substantially lower.



**Figure 19: Proportion of population living in households that feel exposed to noise in % (2011)**

Source: Eurostat n.d. c

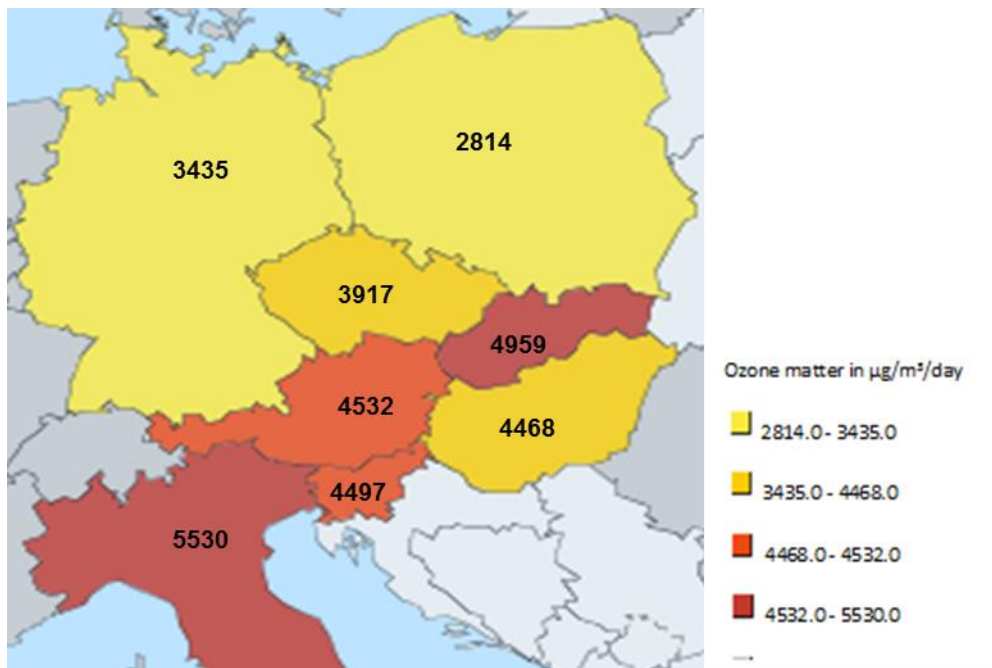
Furthermore, emissions in ambient air also pose a threat to human health. An example of an air pollutant which influences human health and well-being negatively is ozone. High ozone values in ambient air not only result in breathing difficulties and asthma symptoms, but can also trigger more severe lung and heart diseases<sup>22</sup>. As shown in Figure 20 increased levels of ozone pollution can be identified in some parts of the CE 2020 programme

<sup>20</sup> European Commission 2013b

<sup>21</sup> World Health Organization 2013a

<sup>22</sup> World Health Organization 2013b

area. Ranging from 4497.0  $\mu\text{g}/\text{m}^3/\text{day}$  to 5530.0  $\mu\text{g}/\text{m}^3/\text{day}$ , the pollution values are particularly high in the urban areas of Italy and the Slovak Republic as well as in Austria and Slovenia. In contrast, the lowest levels of ozone pollution in urban areas are observable in Poland (2814.0  $\mu\text{g}/\text{m}^3/\text{day}$ ) and Germany (3435.0  $\mu\text{g}/\text{m}^3/\text{day}$ ).



**Figure 20: Exposure of urban population to air pollution caused by ozone matter in  $\mu\text{g}/\text{m}^3/\text{day}$  (2010)**

Source: Eurostat n.d. c

### Zero-option scenario

Environmental threats to human organisms are also a growing concern within the CE 2020 programme area. In line with increasing public mobility and the further depletion of atmospheric ozone, the resulting noise and rising ozone as well as fine particulate matter levels will continue to have an adverse effect on human health. In recognition of the need to reduce these existing pressures, specific threshold values have already been defined at the EU and international level (cf. Chapter 5.4). Thus, it can be assumed that measures designed to improve the environmental conditions for human well-being will most likely be taken into account, even in the absence of the OP CE 2020.

## 6.6 Fauna, Flora and Biodiversity

The CE 2020 programme area is characterised by a large variety of flora and fauna. The protection of this rich variety of species and ecosystems as well as the reduction of the rate of biodiversity loss form a key element of European and international species protection (cf. Chapter 5.5). For the description of the current state of the environmental issue “Fauna, Flora and Biodiversity” indicators relating to the protection of species and habitats, endangered species and biodiversity are considered.



With NATURA 2000, an extensive network of nature conservation areas within the EU has been established. The number of NATURA 2000 sites within the programme area amounts to 11,482 sites which together represent 43.4 % of all NATURA 2000 sites in the EU (cf. Figure 21).

Designated area	Total sites	Total area (km <sup>2</sup> )	% of Natura 2000 sites
CE 2020	11,482	278,143	43.4 %
EU-27	26,444	1,009,930	100 %

**Figure 21: NATURA 2000 sites within the EU (based on Birds and Habitats Directive) (2011)**

Source: European Commission 2013c

With regard to the NATURA 2000 sites within the CE 2020 programme area, a differentiation between absolute and relative data must be made. In absolute terms, the largest number (5,264 sites) and area (80,753 km<sup>2</sup>) of NATURA 2000 sites can be identified in Germany, followed by Italy (2,576 sites and 63,725 km<sup>2</sup>) and Poland (983 sites and 68,458 km<sup>2</sup>) (cf. Figure 22). Although the Czech Republic has a large number of NATURA 2000 conservation areas, the total area amounts to only 11,061 km<sup>2</sup>. Moreover, the smallest number of NATURA 2000 sites can be found in Slovenia (286 sites) and Austria (218 sites), whereby the Slovenia also exhibits the smallest total area of 7,203 km<sup>2</sup>. With regard to the proportion of the respective national area designated as NATURA 2000 a different picture emerges. From this perspective the largest proportion of national area designated as NATURA 2000 conservation area is observable in Slovenia (35.5 %). In contrast, only 15.5 % of the national area in Germany is designated as NATURA 2000 sites.

Member State of the OP CE 2020	Total sites	Total area (km <sup>2</sup> )	% of national area
Czech Republic	1,116	11,061	14.0 %
Germany	5,264	80,753	15.5 %
Italy	2,576	63,725	19.0 %
Hungary	525	19,949	21.4 %
Austria	218	12,546	15.0 %
Poland	983	68,458	19.6 %
Slovenia	286	7,203	35.5 %
Slovak Republic	514	14,448	29.6 %
Croatia <sup>23</sup>	n.a.	n.a.	n.a.

**Figure 22: NATURA 2000 sites within the programme area of CE 2020 (based on Birds and Habitats Directive) (2012)**

Source: European Commission 2013c

<sup>23</sup> As Croatia has only been Member of the EU since 1<sup>st</sup> July 2013, data for NATURA 2000 sites is not yet available. It is however, anticipated that 738 sites in Croatia will be integrated into the NATURA 2000 network (European Commission 2013c).

The conservation status of animals and plants can be identified on the basis of the IUCN regional Red List for Europe. With regard to the relevance for the CE 2020 programme area, the following highly endangered animal groups identified in Europe in 2011 must be considered: freshwater fish (37 %), amphibians (23 %) and mammals (15 %) <sup>24</sup>. Within the programme area, the endangered freshwater fish species are concentrated in the Slovak Republic, Croatia and Hungary as well as in the participating parts of Italy, Croatia and the Danube region of Austria. Threatened amphibians and mammals can primarily be found in Slovenia, Croatia and the participating parts of Italy. With regard to mammals, a further concentration of threatened species can be found in the Czech Republic, the Slovak Republic and Hungary. With regard to the conservation of plants, the most threatened populations in Europe include policy plants <sup>25</sup> (38.4 %), aquatic plants (15.8 %) and crop wild relatives (10.9 %). Within the programme area, threatened policy plants are primarily located in Austria, the Czech Republic, Hungary and Slovenia as well as in the participating parts of Italy and Germany. Whereas threatened aquatic plants are primarily located in Croatia, Slovenia and in the participating parts of Italy, endangered crop wild relative species can mainly be found in the participating parts of Italy.

As the diversity of bird species largely correlates with the total biodiversity, the Farmland Bird Index (FBI) serves as an indicator for biodiversity <sup>26</sup>. The FBI consists of population trends for birds species primarily found in cultural landscapes. As shown in Figure 23 Hungary (105.3) and Italy (104.6) display the highest index values among the CE 2020 Member States. Compared to the baseline of 2000 a slight increase of roughly 5 index points can be noted, thus indicating a slight increase in biodiversity within each of these Member States. In Austria (77.4) and Germany (75.7), the index values are about one quarter below the baseline, indicating that the biological diversity in these Member States has decreased since 2000. In Poland (99.3) and the Czech Republic (97.3) the FBI has remained relatively stable since 2000.

Member State of the OP CE 2020	Index (2000 = 100)
<b>Czech Republic</b>	97,3
<b>Germany</b>	75,7
<b>Italy</b>	104,6*
<b>Hungary</b>	105,3
<b>Austria</b>	77,4
<b>Poland</b>	99,3
<b>Slovenia</b>	n.a.
<b>Slovak Republic</b>	n.a.
<b>Croatia</b>	n.a.

\* data from 2007

**Figure 23: Farmland Bird Index (FBI) (2008)**

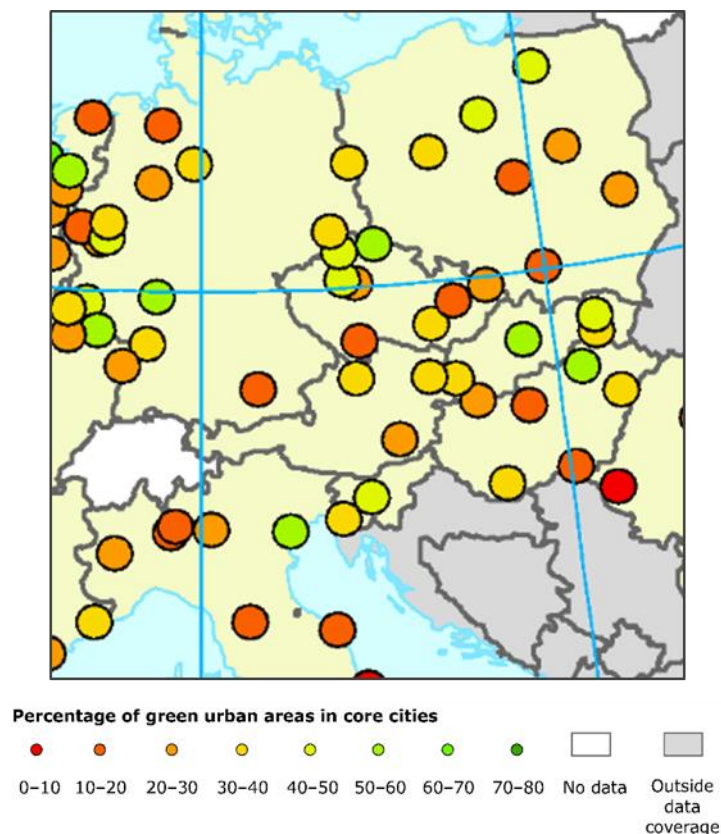
Source: Eurostat n.d. a

<sup>24</sup> European Commission 2013d

<sup>25</sup> The term „policy plants“ refers to plant species and subspecies listed within European or international policies.

<sup>26</sup> There is a scientific discussion about the advantages and disadvantages regarding the validity of the FBI. However, since there is no adequate alternative indicator representing the state of biodiversity, the FBI is used in this environmental report.

Due to the fact that natural or semi-natural areas as well as green spaces are on the decrease in urban settings, efforts to develop and incorporate green areas are to be intensified. Amongst other things, the share of this so-called “green infrastructure” can be described in terms of the percentage green spaces constitute within urban areas. Figure 24 shows a differentiated picture for the percentage of green urban areas in core cities of the CE 2020 Member States. Ranging from 20 % to 40 % the majority of core cities within the programme area is characterised by a rather moderate share of green spaces. For Hungary, the Czech Republic and the Slovak Republic as well as for the participating parts of Italy, however, some core cities are characterised by a 60 % to 70 % share of green urban areas. In contrast, several core cities in the Czech Republic, Hungary and Poland as well as in the participating parts of Italy and Germany are characterised by a lower share of green spaces (10 % - 20 %).



**Figure 24: Percentage of green urban areas in core cities (n.d.)**

Source: European Environmental Agency 2012c

### Zero-option scenario

The CE 2020 programme area is characterised by a large variety of species and natural areas which are to be preserved. Amongst other issues, the European ecological network NATURA 2000 has been established for this purpose and already covers a large area within the CE 2020 programme area. Thus, it is likely that the NATURA 2000 network will continue to expand, even without implementation of the OP CE 2020. In light of the relatively greater decrease in species richness throughout many parts of the CE 2020 programme area, efforts designed to reduce the rate of biodiversity loss must be continued. In line with a re-

cently adopted EU strategy (COM 2013/0249 Enhancing Europe's Natural Capital) the further encouragement and promotion of green infrastructure development within urban areas can be assumed.

## 6.7 Cultural Heritage and Landscape

Generally speaking, cultural and regional identities and values are reflected in cultural properties and landscapes. Thus, applied to the CE 2020 programme area, the existing cultural and natural heritage and diversity must be protected. Illustrative of this diversity is, for example, the number of cultural and natural heritage sites which are part of the "UNESCO World Heritage List". Furthermore, the preservation of landscape diversity can be captured by the degree of landscape fragmentation.

According to the "UNESCO World Heritage List", 100 cultural and natural properties, including cross-border properties, associated with each member country can be identified within the CE 2020 programme area. Most of these sites are situated in the parts of Italy (21 sites) and Germany (20 sites) belonging to the CE Programme area (cf. Figure 25). With regard to the remaining CE 2020 Member States, the number of existing cultural and natural properties ranges from 3 to 13 sites. Measured against the total number of heritage sites located in the EU-27 and candidate countries (374)<sup>27</sup> the 100 sites located within the CE 2020 programme area account for more than one quarter of all UNESCO sites.

Member State of the OP CE 2020	Cultural sites	Natural sites	Total sites
Czech Republic	12	-	12
Parts of Germany participating in the CE Programme	19	1	20
Parts of Italy participating in the CE Programme	19	2	21
Hungary	7	1	8
Austria	9	-	9
Poland	12	1	13
Slovenia	2	1	3
Slovak Republic	5	2	7
Croatia	6	1	7

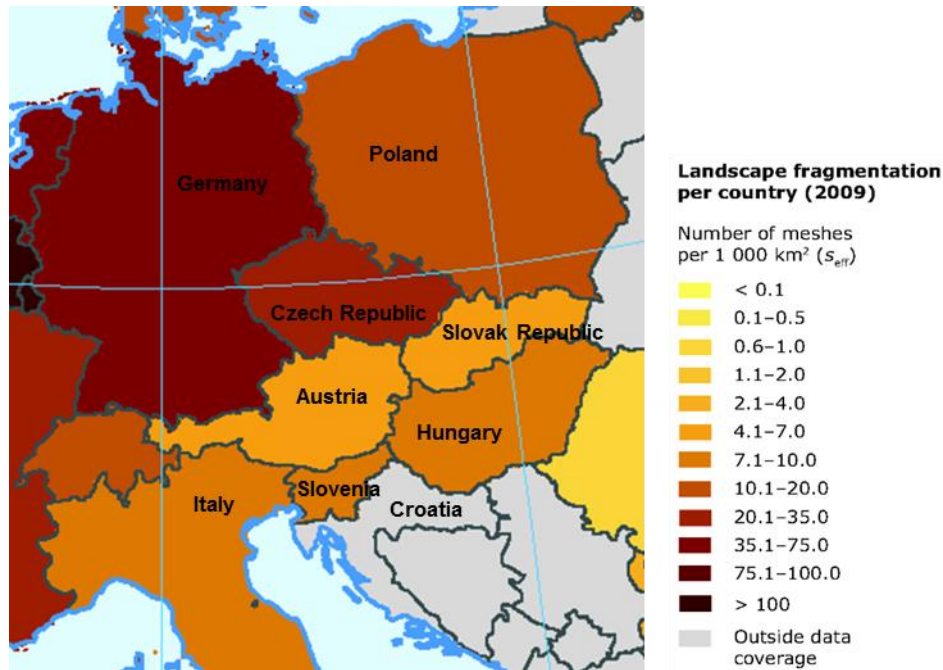
**Figure 25: UNESCO World Heritages Sites within the programme area of CE 2020 (2013)**

Source: UNESCO 2013

With view to the degree of landscape fragmentation within the CE 2020 programme area a differentiated picture emerges (cf. Figure 26). Compared to the other CE 2020 Member States, the degree of landscape fragmentation is particularly high in the Czech Republic (up to 35 meshes per 1.000 km<sup>2</sup>) and the parts of Germany belonging to the CE Programme area (up to 75 meshes per 1.000 km<sup>2</sup>).

<sup>27</sup> Besides Croatia, Turkey is another candidate country.

In contrast, the degree of landscape fragmentation is substantially lower in Austria and the Slovak Republic which exhibit a maximum of 7 meshes per 1.000 km<sup>2</sup>.



**Figure 26: Landscape fragmentation per country (2009)**

Source: European Environmental Agency 2012b

#### Zero-option scenario

As cultural and natural heritage is a source of cultural and local identity, it is an important factor for the development of a region. Thus, the protection of corresponding heritage sites within the CE 2020 programme area must be ensured. A large number of cultural and natural properties are already listed in the “UNESCO World Heritage List” and further properties within the CE 2020 programme area are included in the “Tentative List”. The heritage sites appear to be in a good condition which implies that this will remain so in the future. Besides the UNESCO which operates worldwide, there are also a variety of national and regional conservation programmes. Nevertheless, the preservation of landscapes within the CE 2020 programme area continues to be limited by fragmentation processes such as urban sprawl.

## 7. Possible effects on the environment resulting from the implementation of the CE 2020 programme and recommendations to mitigate significant negative effects

This chapter provides an overview of possible environmental effects of the OP CE 2020 which result from the environmental assessment. As already mentioned in chapter 4.2 the methodological approach to assessing the environmental effects of the Operational Programme CENTRAL EUROPE 2020 is guided by the following central question:

*"Do the Specific objectives (and corresponding potential transnational actions) related to the four priority axes identified in the Operational Programme CE 2020 have a significantly positive or negative effect on the environmental issues in the programme area ?"*

To answer this question the assessment is supported by the identified guiding questions (cf. Chapter 5) and is carried out on the basis of the following 5-point-scale:

Legend for the assessment	
+	Possible occurrence of positive environmental effects
-	Possible occurrence of negative environmental effects
+/-	Possible occurrence of both positive and negative environmental effects
o	Likely no significant environmental effects
/	Assessment is not possible due to the limited availability of information

**Figure 27: Legend for the assessment within the SEA process CE 2020**

Source: blue | DSN, 2013

For the environmental assessment the most detailed level of programme information is used. Thus, the assessment of likely effects resulting from the OP CE 2020 is conducted at the level of the priority axis, their corresponding specific objectives and potential transnational actions. It must be noted in this context that the assessment at the programme level can only provide a general outline of possible environmental effects. This is due to the fact that more detailed information on the likely environmental effects will occur at the implementation phase of the projects.

Moreover, due to the fact that the OP CE 2020 is a ETC programme it must be considered that its key focus is on the promotion of "soft factors" such as the building and increasing of capacities including exchange of knowledge and good practice between the participating Member States. **Thus, the possible environmental effects of the OP CE 2020 will primarily be of indirect nature.** Nevertheless, the promotion of "soft factors" forms the basis for further investment activities.

The possible environmental effects of the OP CE 2020 are considered for each environmental issue and cross-cutting theme. The assessment of cross-cutting themes has been integrated into the appropriate environmental issues. The results of this assessment will be presented by providing "Findings" which present the potential effects on the respective environmental issue and "Recommendations" which present recommendations to mitigate possible negative environmental effects.

## 7.1 Water

<b>Environmental issue: Water</b>			
<b>Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive</b>			
<b>Specific objective</b>	<b>Assessment</b>	<b>Findings</b>	<b>Recommendations</b>
<u>Specific objective 1.1:</u> <i>To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity</i>	○	The Specific objective will likely have no significant effect on the environmental issue “Water”.	No recommendation
<u>Specific objective 1.2:</u> <i>To improve knowledge and skills for advancing economic and social innovation in central European regions</i>	o/+	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Water”.</p> <p>Amongst other things, however, the build-up of skills and competences for eco-innovative technologies and processes could potentially have positive implications with regard to reducing water consumption. Given that the number of funded projects within this field is uncertain, however, the extent of positive effects cannot be sufficiently predicted.</p>	No recommendation
<b>Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE</b>			
<b>Specific objective</b>	<b>Assessment</b>	<b>Findings</b>	<b>Recommendations</b>
<u>Specific objective 2.1:</u> <i>To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure</i>	○	The Specific objective will likely have no significant effect on the environmental issue “Water”.	No recommendation

### Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 2.2:</u> <i>To improve territorially based energy planning strategies and policies supporting climate change mitigation</i>	<b>o/-</b>	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Water”.</p> <p>For example, however, the eventual construction of hydropower plants, as part of the promotion of renewable energy resources, could have an adverse effect on the river eco-system and result in the associated consequences (e.g. degradation of the ecological status of the water body).</p>	In case a submitted project foresees the concrete planning or feasibility studies for hydropower plants specific attention should be placed on the ecological status of the water body following the national legislation and procedures in place.
<u>Specific objective 2.3:</u> <i>To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions</i>	<b>o</b>	The Specific objective will likely have no significant effect on the environmental issue “Water”.	No recommendation

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.1:</u> <i>To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources</i>	<b>+</b>	The Specific objective will likely have a positive effect on “Water” as the promotion of integrated environmental approaches will contribute to the protection and sustainable use of water resources. This could likely lead, for example, to an enhanced ecological and chemical status of water bodies in protected natural areas.	No recommendation
<u>Specific objective 3.2:</u> <i>To improve capacities for the sustainable use of cultural heritage and resources</i>	<b>o</b>	The Specific objective will likely not significantly affect the environmental issue “Water”.	No recommendation



### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.3:</u> <i>To improve environmental management of functional urban areas to make them more liveable places</i>	+	The improvement of the quality of urban environment which is addressed by the Specific objective will likely have a positive effect on “Water”. An integrated environmental management could, for example, contribute to a reduction of water pollution and thus to an enhanced ecological/ chemical status of water bodies in functional urban areas.	No recommendation

### Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 4.1:</u> <i>To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks</i>	o	The Specific objective will likely have no significant effect on the environmental issue “Water”.	No recommendation
<u>Specific objective 4.2</u> <i>To improve coordination among freight transport stakeholders for increasing multi-modal environment-friendly freight solutions</i>	o/-	For the most parts the Specific objective will likely have no significant effect on the environmental issue “Water”. Amongst other things, however, irrespective of whether river and sea transport is considered as most sustainable transport mode, it has to be considered that the promotion of this transport mode could contribute to an increased water pollution as well as to adverse effects on hydromorphology.	In case a submitted project foresees the promotion of river and sea transport specific attention should be placed on the ecological status of the water body and its hydromorphology following the national legislation and procedures in place.

## 7.2 Soil

### Environmental issue: Soil<sup>28</sup>

#### Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 1.1:</u> <i>To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity</i>	o	The Specific objective will likely have no significant effect on the environmental issue “Soil”.	No recommendation
<u>Specific objective 1.2:</u> <i>To improve knowledge and skills for advancing economic and social innovation in central European regions</i>	o/+	For the most parts the Specific objective will likely have no significant effect on the environmental issue “Soil”.  Amongst other issues, however, the build-up of skills and competences for eco-innovative technologies and processes could potentially have positive implications with regard to enhanced resource efficiency. Given that the number of funded projects within this field is uncertain, however, the extent of positive effects cannot be sufficiently predicted.	No recommendation

#### Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 2.1:</u> <i>To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure</i>	o	The Specific objective will likely have no significant effect on the environmental issue “Soil”.	No recommendation

<sup>28</sup> The cross-cutting theme “Waste and Material Resources” is considered within the assessment of possible effects on the environmental issue “Soil”.

### Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 2.2:</u> <i>To improve territorially based energy planning strategies and policies supporting climate change mitigation</i>	<b>o/+</b>	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue "Soil".</p> <p>Amongst other issues, however, in case waste is used as an energy source the volume of landfill could be reduced and thus likely have a positive effect on soil resources.</p>	No recommendation
<u>Specific objective 2.3:</u> <i>To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions</i>	<b>o</b>	<p>The Specific objective will likely not significantly affect the environmental issue "Soil".</p>	No recommendation

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.1:</u> <i>To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources</i>	<b>+</b>	<p>The Specific objective will likely have a positive effect on "Soil" as the promotion of integrated environmental approaches will contribute to the protection and sustainable use of soil resources. This could likely lead, for example, to reduced soil degradation in protected natural areas. In addition, the Specific objective will promote efficient management of natural resources which will likely contribute to a sustainable use of material resources.</p>	No recommendation
<u>Specific objective 3.2:</u> <i>To improve capacities for the sustainable use of cultural heritage and resources</i>	<b>o</b>	<p>The Specific objective will likely not significantly affect the environmental issue "Soil".</p>	No recommendation

**Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE**

Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 3.3:</u> To improve environmental management of functional urban areas to make them more liveable places</p>	+	The Specific objective could positively affect the environmental issue “Soil”. Improving environmental management in functional urban areas could contribute, for example, to reduce soil sealing and land consumption as well as to promote the revitalisation of contaminated/brownfield sites.	No recommendation

**Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE**

Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 4.1:</u> To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks</p>	o	The Specific objective will likely have no significant effect on the environmental issue “Soil”.	No recommendation
<p><u>Specific objective 4.2</u> To improve coordination among freight transport stakeholders for increasing multi-modal environment-friendly freight solutions</p>	o	The Specific objective will likely not significantly affect the environmental issue “Soil”.	No recommendation

### 7.3 Air and Climate

Environmental issue: Air and Climate <sup>29</sup>			
Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive			
Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 1.1:</u> <i>To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity</i>	○	The Specific objective will likely have no significant effect on the environmental issue “Air and Climate.	No recommendation.
<u>Specific objective 1.2:</u> <i>To improve knowledge and skills for advancing economic and social innovation in central European regions</i>	o/+	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Air and Climate”.</p> <p>Amongst other issues, however, the build-up of skills and competences in the field of eco-innovation and innovation for low-carbon solutions could potentially have positive implications with regard to the reduction of air pollutants/GHG and the enhancement of energy efficiency in general. Given that the number of funded projects within this field is uncertain, however, the extent of positive effects cannot be sufficiently predicted.</p>	No recommendation.

<sup>29</sup> The cross-cutting themes “Energy Resources” and “Mobility and Transport” are considered within the assessment of possible effects on the environmental issue “Air and Climate”.

## Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 2.1:</u>  <i>To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure</i></p>	+	<p>The Specific objective will have a positive effect on the environmental issue “Air and Climate”. Improving energy efficiency and strengthening the usage of renewable energy sources of public infrastructure including buildings will likely lead to a reduction of harmful emissions, in particular GHG-emissions. The expected reduction of GHG could contribute to climate change mitigation.</p>	No recommendation
<p><u>Specific objective 2.2:</u>  <i>To improve territorially based energy planning strategies and policies supporting climate change mitigation</i></p>	+	<p>The Specific objective will affect “Air and Climate” in a positive way. For example, by promoting strategies to increase the use of renewable energies and to improve the energy performance in general air pollutants (such as GHG-emissions) will most likely decrease. Consequently, this could contribute to climate change mitigation.</p>	No recommendation
<p><u>Specific objective 2.3:</u>  <i>To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions</i></p>	+	<p>The Specific objective will have a positive effect on “Air and Climate”. The strengthening of low carbon mobility in functional urban areas will lead to lower concentrations of air pollutants and GHG. The expected reduction of GHG could contribute to climate change mitigation.</p>	No recommendation

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.1:</u> <i>To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources</i>	+	The Specific objective will have a positive effect on “Air and Climate”. The protection and sustainable use of natural resources such as air will contribute to achieving better air quality.	No recommendation
<u>Specific objective 3.2:</u> <i>To improve capacities for the sustainable use of cultural heritage and resources</i>	o	The Specific objective will likely not significantly affect the environmental issue “Air and Climate”.	No recommendation
<u>Specific objective 3.3:</u> <i>To improve environmental management of functional urban areas to make them more liveable places</i>	+	The Specific objective could positively affect the environmental issue “Air and Climate”. Improving environmental management in functional urban areas could contribute, for example, to a decrease in the concentration of air pollutants such as particulate matters.	No recommendation

### Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 4.1:</u> <i>To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks</i>	+	The Specific objective will likely effect the environmental issue “Air and Climate” in a positive way. For example, the Specific objective focuses on improving regional public transport systems which could lead to a reduction of motorised private transport. As a consequence CO <sub>2</sub> emissions will likely decrease.	No recommendation

#### Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 4.2</u> <i>To improve coordination among freight transport stakeholders for increasing multi-modal environment-friendly freight solutions</i>	+	The Specific objective will likely have a positive effect on “Air and Climate”. Promoting the multimodality and the environmental sustainability of freight transport will likely contribute to the reduction of air pollutants and GHG in a positive way.	No recommendation

#### 7.4 Population and Human Health

##### Environmental issue: Population and Human Health

#### Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 1.1:</u> <i>To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity</i>	o	The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.	No recommendation
<u>Specific objective 1.2:</u> <i>To improve knowledge and skills for advancing economic and social innovation in central European regions</i>	o/+	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, the strengthening of competences in the field of social innovation - as for example health care - could likely have a positive effect on “Population and Human Health”. Given that the number of funded projects within this field is uncertain, however, the extent of positive effects cannot be sufficiently predicted.</p>	No recommendation



## Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 2.1:</u>  <i>To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, it has to be considered that air pollution caused by fossil fuels will be reduced by promoting energy efficiency and renewable energy usage in public infrastructure. This could positively affect human well-being.</p>	No recommendation
<p><u>Specific objective 2.2:</u>  <i>To improve territorially based energy planning strategies and policies supporting climate change mitigation</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, a positive effect of the Specific objective on “Population and Human Health” could be expected due to the better exploitation and enhanced use of renewable energy sources. The resulting reduction of emissions caused by fossil fuels will contribute to lowering health risks.</p>	No recommendation
<p><u>Specific objective 2.3:</u>  <i>To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, the improvement of air quality by strengthening low-carbon mobility in functional urban areas is particularly likely to benefit human health in a positive way.</p>	No recommendation

**Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in  
CENTRAL EUROPE**

<b>Specific objective</b>	<b>Assessment</b>	<b>Findings</b>	<b>Recommendations</b>
<p><u>Specific objective 3.1:</u> <i>To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, the protection and sustainable use of natural resources could contribute to human well-being by improving healthy living conditions. This could be the case as natural areas are, for example, used as recreation areas.</p>	No recommendation
<p><u>Specific objective 3.2:</u> <i>To improve capacities for the sustainable use of cultural heritage and resources</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, a better management of cultural heritage can contribute to more attractive cultural offers being relevant for human wellbeing.</p>	No recommendation
<p><u>Specific objective 3.3:</u> <i>To improve environmental management of functional urban areas to make them more liveable places</i></p>	<b>+</b>	<p>The Specific objective will likely have a positive effect on “Population and Human Health”. A general improvement of environmental quality in urban areas will induce healthier living conditions for humans. This can be most notably achieved by reducing air, soil and water pollution.</p>	No recommendation

### Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 4.1:</u>  <i>To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, the improvement of the regional public transport system could contribute to a reduction of emissions which could positively affect human well-being</p>	No recommendation
<p><u>Specific objective 4.2</u>  <i>To improve coordination among freight transport stakeholders for increasing multi-modal environment-friendly freight solutions</i></p>	<b>o/+</b>	<p>The Specific objective will likely have no significant effect on the environmental issue “Population and Human Health”.</p> <p>Amongst other issues, however, promoting the multimodality and the environmental sustainability of freight transport within this Specific objective will likely have a positive effect on “Population and Human Health” as fossil fuel emissions will be reduced. Moreover, potential noise pollution will also most likely be reduced.</p>	No recommendation

## 7.5 Fauna, Flora and Biodiversity

Environmental issue: Fauna, Flora and Biodiversity			
Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive			
Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 1.1:</u>  <i>To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity</i></p>	○	<p>The Specific Objective will likely have no significant effect on the environmental issue “Fauna, Flora and Biodiversity”.</p>	No recommendation
<p><u>Specific objective 1.2:</u>  <i>To improve knowledge and skills for advancing economic and social innovation in central European regions</i></p>	o/+	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Flora, Fauna and Biodiversity”.</p> <p>Amongst other issues, however, the build-up of skills and competences in the field of eco-innovation and innovation for low-carbon solutions could potentially have positive implications with regard to the reduction of air pollutants/ GHG. This could lead to a reduction of acid rain and thus to an enhanced ecological status of flora and fauna. Given that the number of funded projects within this field is uncertain, however, the extent of positive effects cannot be sufficiently predicted.</p>	No recommendation

## Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<p><u>Specific objective 2.1:</u> <i>To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure</i></p>	<b>o/+</b>	<p>The Specific Objective will likely have no significant effect on the environmental issue “Fauna, Flora and Biodiversity”.</p> <p>Among other issues, however, promoting more energy efficient solutions and renewable energy usage helps to reduce CO<sub>2</sub> emissions and with this, it helps to mitigate climate change effects which affect in particular biodiversity.</p>	No recommendation
<p><u>Specific objective 2.2:</u> <i>To improve territorially based energy planning strategies and policies supporting climate change mitigation</i></p>	<b>o/+/-</b>	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Flora, Fauna and Biodiversity”.</p> <p>Amongst other issues, however, if the use of renewable energy sources is too one-sided (e.g. cultivation of corn monocultures for biomass production) a loss of biodiversity could occur, for example, where biomass production is based on corn monocultures. Nevertheless – provided that particular ecological-related criteria are taking into account within the planning and implementation phase - the use of solar fields in the landscape could have a positive effect on biodiversity since they serve as extensive grassland areas.</p>	The OP CE 2020 should contractually (e.g. in the subsidy contract) remind the respecting of environmental legislation in the implementation.

### Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 2.3:</u> <i>To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions</i>	<b>o/+</b>	<p>The Specific Objective will likely have no significant effect on the environmental issue “Fauna, Flora and Biodiversity”.</p> <p>Among other issues, however, promoting capacities for mobility planning aim to lower CO<sub>2</sub> emissions and according to this, it helps to mitigate climate change effects which affect in particular biodiversity.</p>	No recommendation

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.1:</u> <i>To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources</i>	<b>+</b>	<p>The Specific objective will likely affect “Fauna, Flora and Biodiversity” in a positive way due to the protection and sustainable use of natural heritage and resources. The implementation of integrated strategies which focus on the preservation and protection of eco-systems could, for example, lead to a positive development of species populations.</p>	No recommendation
<u>Specific objective 3.2:</u> <i>To improve capacities for the sustainable use of cultural heritage and resources</i>	<b>o</b>	<p>The Specific objective will possibly have no significant effect on “Fauna, Flora and Biodiversity”.</p>	No recommendation

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.3:</u> <i>To improve environmental management of functional urban areas to make them more liveable places</i>	+	The Specific objective could potentially have a positive impact on “Fauna, Flora and Biodiversity”. The improvement of environmental quality with regard to air, soil and water could contribute to “Fauna, Flora and Biodiversity” in a positive way as these resources form the basis of animal and plant life.	No recommendation

### Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 4.1:</u> <i>To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks</i>	o	The Specific objective will likely have no significant effect the environmental issue “Fauna, Flora and Biodiversity”.	No recommendation
<u>Specific objective 4.2</u> <i>To improve coordination among freight transport stakeholders for increasing multi-modal environment-friendly freight solutions</i>	o	The Specific objective will likely have no significant effect on “Fauna, Flora and Biodiversity”.	No recommendation

## 7.6 Cultural Heritage and Landscape

<b>Environmental issue: Cultural and Natural Heritage and Landscape</b>			
<b>Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive</b>			
<b>Specific objective</b>	<b>Assessment</b>	<b>Findings</b>	<b>Recommendations</b>
<u>Specific objective 1.1:</u> <i>To improve sustainable linkages among actors of the central European innovation systems for strengthening regional innovation capacity</i>	○	The Specific objective will likely have no significant effect on the environmental issue “Cultural Heritage and Landscape”.	No recommendation
<u>Specific objective 1.2:</u> <i>To improve knowledge and skills for advancing economic and social innovation in central European regions</i>	○	The Specific objective will likely have no significant effect on the environmental issue “Cultural Heritage and Landscape”.	No recommendation
<b>Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE</b>			
<b>Specific objective</b>	<b>Assessment</b>	<b>Findings</b>	<b>Recommendations</b>
<u>Specific objective 2.1:</u> <i>To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructure</i>	○	The Specific objective will likely have no significant effect on “Cultural Heritage and Landscape”.	No recommendation
<u>Specific objective 2.2:</u> <i>To improve territorially based energy planning strategies and policies supporting climate change mitigation</i>	o/-	<p>For the most parts the Specific objective will likely have no significant effect on the environmental issue “Cultural Heritage and Landscape”.</p> <p>Amongst other issues, however, the enhanced use of renewable energy resources such as wind energy plants could lead to adverse modifications of the characteristic natural and cultural landscape.</p>	The OP CE 2020 should contractually (e.g. in the subsidy contract) remind the respecting of environmental legislation in the implementation.



### Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 2.3:</u> <i>To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions</i>	○	The Specific objective will likely have no significant effect on “Cultural Heritage and Landscape”.	No recommendation

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.1</u> <i>To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources</i>	+	The Specific objective will likely have a positive effect on the protection and preservation of cultural or natural landscapes. Due to the fact that landscapes are subject to various pressures (e.g. from transport or intensive agriculture) sustainable planning and management could, for example, lead to a reduction of land consumption and fragmentation. This is particularly relevant to the eastern parts of the programme area, as preservation potential still exists for extensive and intact landscape areas.	No recommendation
<u>Specific objective 3.2</u> <i>To improve capacities for the sustainable use of cultural heritage and resources</i>	+	The Specific objective will have a positive effect on the environmental issue “Cultural Heritage and Landscape”, for example, by promoting integrated approaches with focus on sustainable use of cultural heritage and resources.	No recommendation.

### Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 3.3</u> <i>To improve environmental management of functional urban areas to make them more liveable places</i>	+	The Specific objective will have a positive effect on “Cultural Heritage and Landscape”. For example, urban challenges such as land consumption due to on-going urbanisation processes or the regeneration of brownfields are tackled within the Specific objective.	No recommendation

### Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE

Specific objective	Assessment	Findings	Recommendations
<u>Specific objective 4.1:</u> <i>To improve planning and coordination of regional passenger transport systems for better connections to national and European transport networks</i>	o	The Specific objective will likely have no significant effect on “Cultural Heritage and Landscape”.	No recommendation
<u>Specific objective 4.2</u> <i>To improve coordination among freight transport stakeholders for increasing multi-modal environment-friendly freight solutions</i>	o	The Specific objective will likely have no significant effect on “Cultural Heritage and Landscape”.	

## 7.7 Overview of possible effects of the OP CE 2020 on the environmental issues

This figure provides an overview of possible effects on the environmental issues resulting from the OP CE2020. The cross-cutting themes have been integrated into the assessment of the respective environmental issue. Accordingly, the theme “Waste and Material Resources” is assigned to “Soil” and the themes “Energy Resources” and “Mobility and Transport” to the environmental issue “Air and Climate”.

It has to be noted that the possible environmental effects of the OP CE 2020 will **primarily be of indirect nature** (cf. Chapter 7).

	Environmental issues					
	Water	Soil	Air and Climate	Population and Human Health	Fauna, Flora and Biodiversity	Cultural Heritage and Landscape
<b>Priority axis 1: Cooperating on innovation to make CENTRAL EUROPE more competitive</b>						
Specific objective 1.1	o	o	o	o	o	o
Specific objective 1.2	o/+	o/+	o/+	o/+	o/+	o
<b>Priority axis 2: Cooperating on low carbon strategies in CENTRAL EUROPE</b>						
Specific objective 2.1	o	o	+	o/+	o/+	o
Specific objective 2.2	o/-	o/+	+	o/+	o/+/-	o/-
Specific objective 2.3	o	o	+	o/+	o/+	o
<b>Priority axis 3: Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE</b>						
Specific objective 3.1	+	+	+	o/+	+	+
Specific objective 3.2	o	o	o	o/+	o	+
Specific objective 3.3	+	+	+	+	+	+
<b>Priority axis 4: Cooperating on transport to better connect CENTRAL EUROPE</b>						
Specific objective 4.1	o	o	+	o/+	o	o
Specific objective 4.2	o/-	o	+	o/+	o	o
<b>Legend for the assessment</b>						
+	Possible occurrence of positive environmental effects					
-	Possible occurrence of negative environmental effects					
+/-	Possible occurrence of both positive and negative environmental effects					
o	Likely no significant environmental effects					
/	Assessment is not possible due to the limited availability of information					

## 7.8 Overview of recommendations and supplementary suggestions

The following figure provides an overview of “Recommendations” which arose from the environmental assessment. These recommendations are **obligatory** to consider within the OP CE 2020 in order to ensure that it will not affect the environment in a negative way.

Specific objective(s)	Environmental issue(s)	Recommendations
2.2	Fauna, Flora and Biodiversity / Cultural Heritage and Landscape	The OP CE 2020 should contractually (e.g. in the subsidy contract) remind the respecting of environmental legislation in the implementation.
2.2	Water	In case a submitted project foresees the concrete planning or feasibility studies for hydropower plants specific attention should be placed on the ecological status of the water body following the national legislation and procedures in place.
4.2	Water	In case a submitted project foresees the promotion of river and sea transport specific attention should be placed on the ecological status of the water body and its hydromorphology following the national legislation and procedures in place.

**Figure 28: Overview of recommendations**

Source: blue GbRI, DSN, 2014

The following figure provides an overview of “Suggestions” which arose **additionally** from the environmental assessment. These suggestions are **not obligatory** to be considered within the OP CE 2020 but can rather be understood as supplementary advice in relation to several Specific objectives and environmental issues without however implying a negative assessment. Thus, the “Suggestions” contrast with the “Recommendations” which have been deduced from a potentially negative effect on the corresponding environmental issue.

Specific objective(s)	Environmental issue(s)	Supplementary suggestions
2.2	-	In general, it should be considered that renewable energy resources are used in a balanced mix which depends on specific location factors and conditions.
3.1	Cultural Heritage and Landscape	In general, it should be considered that the sustainable use of natural heritage and resources as a driving force for regional development often results in land-use conflicts. Most commonly, these conflicts occur between protection objectives on the one hand and economic objectives such as tourism on the other. Thus, in order to ensure the sustainability of the overall project, the project applicants should describe the contribution of the project to the horizontal issue of sustainability within the application form.

Specific objective(s)	Environmental issue(s)	Supplementary suggestions
3.2	Cultural Heritage and Landscape	In general, it should be considered that the sustainable use of cultural heritage and resources as a driving force for regional development often results in land-use conflicts. Most commonly, these conflicts occur between protection objectives on the one hand and economic objectives such as tourism on the other. Thus, in order to ensure the sustainability of the overall project, the project applicants should describe the contribution of the project to the horizontal issue of sustainability within the application form.
3.2	Water, Soil, Air and Climate, Flora, Fauna and Biodiversity	In general, it should be considered that in cases where a cultural heritage site is surrounded by natural (sensitive) areas, an intensification of tourism could have negative effects on the site's surrounding areas and thus on several environmental issues. As a consequence, if a cultural heritage site is located in natural (sensitive) areas, possible effects on its surroundings should be considered in projects which focus on sustainable tourism in cultural heritage areas. In this way, a sustainable development as well for the surrounding of the cultural heritage will be ensured.
4.1/4.2	-	The Specific objective 4.1 could go hand in hand with Specific objective 4.2. Thus, the improvement of passenger transport systems could consider solutions linked to the freight transport system in order to allow for the best possible use of transport routes.

**Figure 29: Overview of suggestions**

Source: blue GbR!, DSN, 2014

## 8. Monitoring measures

According to Article 10 of the SEA Directive, possible significant environmental effects of the implementation of the Operational Programme CE 2020, identified within the existing environmental assessment, are to be monitored in order to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action.

In the following, different types of measures which contribute to identification and monitoring of possible significant environmental effects on the environmental issues resulting from the implementation of the OP CE 2020 are presented for both the programme and project levels. When setting up monitoring measures it has to be basically considered that “existing monitoring arrangements may be used if appropriate with a view to avoiding duplication of monitoring”<sup>30</sup>.

### Programme level

- The monitoring of the identified possible significant environmental effects should form an integral part of the OP CE 2020 implementation structure throughout the entire duration of the programme. In order to achieve this, the monitoring of the identified possible significant effects on the environment should be incorporated into the monitoring framework of the programme.

### Project level

- Within the quality assessment of the project proposals possible effects on the environment should be considered as a horizontal issue taking into consideration also the results of the environmental assessment within this SEA report. In this way, possible negative effects could be identified before implementation and appropriate mitigation measures designed to address potential adverse effects of the projects.
- With regard to this it has to be ensured that assessment of project applications is carried out by assessors (JTS and external experts) with the necessary environmental expertise. The choice of experts should be done based on the necessary expertise in relation to the project topic. In the event that possible environmental effects of the proposed projects are difficult to determine additional external environmental experts should be consulted. In case a project concerns a Specific objective for which potential negative effects have been identified in the SEA, this will be considered for the choice of experts.

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<sup>30</sup> SEA Directive Article 10, paragraph 2

- Furthermore, the project applicants should describe within the application forms which possible environmental effects the project will likely have. This could for ex-ample be supported by the guiding questions derived from environmental protection objectives such as developed for each environmental issue within this environmen-tal report or be supported by an self-assessment by the projects such as exampla-tory presented below. A brief evaluation scheme within the application documents could be:

Assess (please mark with a cross) the likely effect of the project on the environment

Environmental issues	Possible positive environmental effects	No significant environmental effects	Possible negative environmental effects
Water			
Soil			
Air and Climate			
Population and Human Health			
Fauna, Flora and Biodiversity			
Cultural Heritage and Landscape			

(It could be emphasized that the Program management like to see proposals for interventions that counteract possible negative effects or mitigate these.)

- All projects have to comply with the relevant EU and national environmental legislation and therein foreseen procedures during the implementation phase of the projects. The obligation to comply with the relevant legislation should be included in the subsidy contract of each project.
- Monitoring measures implemented at national level (if applicable) should be made use of to the possible extent and should be included in the Final Report of the project where the project partners should describe the environmental effects of the project and if applicable the adherence to EU and national environmental regulations.
- Data collected as part of the application form (description of possible environmental effects) during the application phase as well as data from the implementation phase of the projects should be considered within the monitoring framework of the programme.
- With regard to the data collection, all project and programme data will be stored in a database (project applications, project assessments, project reporting and monitoring).

## **Annex**

Annex A: List of abbreviations

Annex B: Bibliography

Annex C: Overview showing the assessment of received comments



**Annex A: List of abbreviations**

CE	Central Europe
CE 2020	CENTRAL EUROPE Programme 2014-2020
CPR	Common Provision Regulation
CSF	Common Strategic Framework
EAP	Environmental Action Programme
ETC	European Transnational Programme
FBI	Farmland Bird Index
GHG	greenhouse gas
IUNC	International Union for Conservation of Nature
JTS	Joint Technical Secretariat
MA	Managing Authority
OP	Operational Programme
OP CE 2020	Operational Programme CENTRAL EUROPE 2020
PM	particulate matter
RDB	Reference Data Base
SEA	Strategic Environmental Assessment
SG	Steering Group for the CENTRAL EUROPE Programme 2014+
TO	Thematic objective
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WEI	water exploitation index
WHO	World Health Organization

## Annex B: Bibliography

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### Annex C: Overview showing the assessment of received comments

An overview of the assessment of received comments within the SEA consultation process is provided in the following table. Grouped by participating Member States of the CE Programme, the table shows if the given SEA-related comment:

- was considered relevant or not relevant for the environmental report and if the comment has thus been integrated in the final environmental report;
- was considered relevant or not relevant for the OP CE 2020 and if an integration of the comment has thus been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Austria</b>		
<b>Austria - Respondent 1</b> (Private company, private development agency, consultancy)		
1	Prioritize Sealing above Desertification (least one: a Problem in CEE? We are not in the Mediterranean!) Avoiding soil contamination ist primarily to reach by keeping air and water clean, whereas sealing means a irreversible 100%-los of soil function: that makes it a dircet to adress matter of an environmental policy as the awareness of politics on the community level about that matter is „wanting to end“.	Section 5.2 prioritizes neither desertification nor sealing. The issue of soil sealing is taken up in the "EU Soil Thematic Strategy" and "Proposal for a Soil Framework Directive". For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 5.2).
2	„What the hell“ measures the Farmland-Bird-Index – as far as I know the database of this index has a very huge „shadow“ (of unknown areas in rural landscape, urban areas and/or protected areas biased) that means this index is (adressing Austria) no representative measure for EU/NUTS-regional-Level policies!	The SEA experts are aware of the advantages and disadvantages regarding the validity of the Farmland-Bird-Index (FBI) and the scientific discussions with regard to this indicator. However, since there is no adequate alternative indicator representing the state of biodiversity, the FBI will not be taken out. A footnote has been integrated pointing out the scientific discussion regarding the FBI. With regard to this, the comment was considered relevant and has been integrated in the environmental report (section 5.6).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
3	The Alps loose their Character as alps got lost (scrub or forest encroachment) in the subalpine zone, on the one hand because of climate change and economic marginalisation of mountain farmers, on the other side because of false political settings (subsidies yet enforcing agriculture in favorable areas) and improper measuring units and measuring tolerances (Keyword: Austrian „Almdesaster“ – Good Luck, Andrä!).	It is not possible to consider neither specific territories nor regional peculiarities within the description of the current state of environment (section 6), since this would go beyond the scope. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.7).
4	Climate Change, economic marginalisation of mountain farming/alpine pasturing enforce the loss of black grouse (yet stable populations in the alps – but soon threatened by forest encroachment e.g. in some Austrian southern alps)	Section 6 represents the environmental assessment of the OP CE 2020. With regard to this, the comment describes neither a "Finding" nor a "Recommendation". For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6).
5	Make a questioning look at the sensing of political priorities in the CEE-context	Due to its unspecific character, it is not clear if the comment relates to the environmental report or the OP CE 2020. For this reason, the comment was considered not relevant. Thus, it has not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
<b>Austria - Respondent 2</b> (Research institution, university)		
6	River basin management should focus on multifunctional land-use and the creation of ecological infrastructure	The Water Framework Directive (WFD) does not explicitly highlight a specific focus on multifunctional landuse and the creation of ecological infrastructures in the river management plans. For this reason, this comment was considered not relevant has thus not been integrated in the environmental report (section 5.1).
7	Eu Biodiv strategy and Aichi targets are calling for ecological restoration of degraded ecosystems. This should explicitly be targeted in research questions for the programme. This is especially important for the creation of ecological infrastructure and the maintenance of its functionality.	This comment was considered relevant and an integration in the OP CE 2020 (section 2.A.1.6c/ 2.A.2.1.6c) has been suggested.
8	Landscape convention is calling for a "tentative list" and a consistent typology of European landscapes. Research questions of the programme should address this issue by asking for the development of updated methods of landscape classification and assessment.	Projects dealing with landscape protection can be funded in Specific objective 3.1. Accordingly, some examples of actions already focus on landscape. For this reason, this comment was considered not relevant and no integration in the OP CE 2020 has been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
9	Indicator sets and consistent monitoring methods should be made transparent and be mentioned in the programme.	The OP CE 2020 includes indicators and monitoring methods. For this reason, this comment was considered not relevant and no integration in the OP CE 2020 has been suggested.
<b>Austria - Respondent 3</b> (National public authority)		
10	To add Danube strategy	Section 5 provides an overview of policies at EU-level and beyond which relate directly to environmental protection and not to macro-regional strategies like the Danube strategy. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 5.1).
11	Even if it is only depicting the current status also the goals per country for 2020 should be mentioned, as it could justify national priorities.	Figure 15 (p.44) in the environmental report (reference point of the comment) represents the Kyoto protocol reduction goals (2008-2012) compared to the Kyoto base year 1990. In relevant documents such as Decision 406/2009/EC individual reduction goals for 2020 at EU Member State level are listed. However, these reduction goals refer to the reference year 2005. Thus, these target values are not comparable with those in the figure. In the Doha amendment to the Kyoto protocol (Kyoto II) the EU's collective 20% reduction goal to Kyoto base year 1990 has not yet been individualized at the level of Member States shares. Due to the fact that comparable goals are not available in these documents and a search on national websites would go beyond the scope, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.5).
12	It is not specified that the data collection should be done electronic with the storage in an adequate databank.	This comment was considered relevant and has been integrated in the environmental report (section 8).
<b>Croatia</b>		
<b>Croatia - Respondent 1</b> (National public authority)		
13	Croatia has proclaimed Natura 2000 ecological network and data should now be available.	Data representing the number of NATURA 2000 for Croatia are not available until now. For this reason, this comment is considered not relevant and will thus not be integrated now in the environmental report (section 6.6.). However, if they will be available in the near future the number will be added later.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Czech Republic</b>		
<b>Czech Republic - Respondent 1</b> (Regional or local public authority)		
14	Before the concept is approved, the rules under which projects are accepted for funding from this operational programme and the method for ensuring institutional administration of the programme are clearly stated.	In the OP CE 2020 guiding principles for project selection are defined as well as horizontal quality requirements for all funded projects. For this reason, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
<b>Czech Republic - Respondent</b> (National public authority)		
15	Priority Axes 3 and 4 may have a negative impact, particularly on the fauna, flora, biodiversity and the landscape. Follow-up measures must be proposed to avoid any negative environmental influences.	<p>The Specific objectives of priority axis 3 focus predominantly on an improvement of the environment. Thus, the Specific objectives will likely have no negative effects on "Flora, Fauna and Biodiversity".</p> <p>Having a look at the main objectives of the Specific objectives 4.1 and 4.2 it becomes clear that due to their focuses the SO will likely have no possible negative effect on "Flora, Fauna and Biodiversity".</p> <p>For this reasons, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7.5)</p>
<b>Czech Republic - Participant 3</b> (National Public Authority)		
16	In relation to Priority Axis 3 "Cooperation in the field of natural and cultural sources for sustainable growth in Central Europe" states that one of the specific objectives is to ensure protection and sustainable use of natural wealth and resources. In terms of water resources, the protection and use of groundwater sources in border regions is of particular importance. We recommend that projects also focus on resolving this issue.	This comment was considered relevant and an integration in the OP CE 2020 (section 2.A.1.6c) has been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Czech Republic - Participant 4</b> (Other public or equivalent body)		
17	Although it did not expect any significant negative impacts on individual components of the environment (and tends rather to anticipate a positive impact) at a general level, does feel it necessary to deal with the possibility of negative impacts in certain cases, in particular regarding the use of energy resources or the development of the transport infrastructure. For this reason the individual projects will have to be examined in detail. In the case of border areas, which include the Broumovsko PLA, certain projects implemented on the territory of a neighbouring state may also have significant impacts.	In section 8 several measures are mentioned in order to prevent possible negative effects of the projects. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 8).
<b>Czech Republic -Participant 5</b> (Other public or equivalent body)		
18	Comments on the text on page 67, which states: "The use of solar power plants in the landscape may, however, have a beneficial effect on biodiversity, because solar power plants act as an extensive grassed area." This text in point 6.5 Fauna, Flora and Biodiversity, PA 2 specific objective 2.2 is at the very least questionable since grassed areas of solar power plants (if these are sown with grass mixes) built on "green fields" are fenced and regularly mowed, keeping the grass as short as possible, leading to the degradation of biodiversity with an impact on flora and fauna. We recommend locating solar power plants in brownfield-type locations or on the roofs of existing buildings, and not in the open countryside, where they have a negative impact on the landscape.	Different studies which examine the ecological effects of solar parks reveal that e.g. the implementation of solar parks on species-poor areas could lead to the development of species-richer habitats. However, different criteria within the planning/implementation phase of solar parks have to be considered to contribute to positive effects on biodiversity. This aspect was considered relevant and has been integrated in the environmental report (section 7.5).
19	Following on from other strategic concepts concerning the CR for the next programming period 2014 - 2020, any assessment of the "Draft concept OP CE 2020" must also:  - assess the impact of the "Draft concept OP CE 2020" on the renewal and maintenance not only of natural, but also of the historic, cultural and aesthetic values of the landscape (the character of the landscape, important landscape features, natural parks), and natural communities having a potential negative impact on biodiversity;	The selected environmental issue "Cultural Heritage and Landscape" includes the consideration of "cultural values" of landscapes.  The meaning of natural communities is not clear. With regard to the Specific objectives and actions, no reference to natural communities exists in the OP CE 2020.  These comments were considered not relevant for the reason mentioned above and have thus not been integrated in the environmental report (section 7.6)

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
20	- establish conditions to eliminate accelerated runoff of water from the landscape, reducing vital small areas of water circulation and reinforcing the occurrence of drought conditions in certain regions, and to take these into consideration when setting criteria for the selection of projects for support.	Due to the OP CE 2020's transnational character, it would go beyond the scope to consider explicitly specific territories and regional peculiarities. For this reason, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
<b>Czech Republic - Respondent 6 (n/a)</b>		
21	The transport study entitled "Gateway to our neighbours", which proposes an alternative route for the I/14 bypass in Nové Město nad Metují be included in the draft concept. He does not agree with the route currently proposed for the bypass.	The reference point is not clear. For this reason, the comment was considered not relevant and have thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
<b>Czech Republic - Respondent 7 (National Public Authority)</b>		
22	Based on the above, the MoE would comment on the statements summarised by stating that, after a thorough examination of the documents received and on the basis of all the statements received, it has no fundamental objections to the draft concept "Operational Programme Central Europe 2020", including its environmental impact assessment.	This comment is a general assessment regarding the OP CE 2020, with no suggestion of improvement. For this reason, this comment was considered not relevant and and therefore no integration in the CE OP2020 has been suggested.
<b>Germany</b>		
<b>Germany - Respondent 1 (Regional or local authority)</b>		
23	The chosen policy papers refer only to protection and preservation. In our view, the option of sensitive re-utilisation of heritage should be emphasised along with these topics since it represents a cost-efficient way of (partly) protecting heritage which would otherwise deteriorate. Another potential document for reference could be: - resolution 1924 (2013) on Industrial Heritage of Europe by the Council of Europe	This comment was considered relevant and has been integrated in the environmental report.
<b>Germany - Respondent 2 (Other)</b>		
24	Comments on the Draft OP: Priority Axis 1: The results of the strategic project CluStrat offer important hints for reaching the objectives set out under Priority Axis 1 Innovation: For specific objective 1 A: A systemic approach (involvement of all relevant stakeholders including research, finance, end-users etc.) which is clearly demand-driven and oriented towards solving concrete problems and / or coping with major societal challenges is needed in order to be successful in achieving not only "sustainable", but also "effective" (!) "linkages among actors of the	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
	<p>central European innovation systems for strengthening regional innovation capacity” and for successfully ”fostering technology transfer and the development and implementation of new services supporting innovation in businesses”. New forms of flexible, possibly even ad hoc innovation cooperation within, between and beyond clusters, as well as cross-industry / cross-technology approaches are particularly promising and should therefore be experimented within this area. Measures to be supported should include experimentation of transnational value chain deployment. CluStrat will offer case studies etc. For specific objective 1 B: In the context of building capacities to “develop and implement innovative products, services or processes”, supporting 3S and the “application of novel technologies”, awareness for the potentials of cross-industry / cross-technology approaches as well as the implementation of Key enabling technologies with a view to upgrading traditional industries must be raised and should therefore be experimented through projects. CluStrat will offer case studies etc. for ways of implementing such cross-fertilization which can be further deployed through future projects. One target group of capacity building measures should be the cluster management organizations. The Lead Partner of CluStrat is available for further information. Nevertheless, as the innovation community as well as the cluster community is developing over the years, the topics should not be too specific but leave it open so that new solutions or approaches can be proposed. In a more general yet targeted way, following issues are relevant: - New and efficient ways of technology and knowledge transfer to SME - Raising awareness in SME and especially the CRAFT sector on the potential applications of key enabling technologies - Large scale demonstration facilities for testing and validating new technology applications - Transnational cooperation across sectors, involving industry, sme and research to enhance the development of new products and services in emerging industries Horizontal principles: Innovation should be included as a general principle, as it was in the 2007-2013 OP. Comments on framework for operational project implementation, including simplification: • Application of new projects: the new application form should allow for inclusion of graphs, tables etc. to visualize the applicant’s ideas and arguments. • Coordination with other Union Instruments: Combination with ESIF funding is requested by various H2020</p>	

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
	<p>work programmes. Possibilities to practically implement such combination should be clarified. • Role and scope of JTS: To improve the assistance available to projects, the JTS should be equipped with a competence to reliably advise project actors on questions of eligibility and compliance with further programme rules. Being a body involved in the concretization of project implementation rules based on the underlying ESIF regulations, it should have a say regarding compliance with these rules. The JTS should have a scope for discretion when advising and / or deciding on questions of eligibility and compliance with further programme rules. As a general rule, judgement should be “in dubio pro project”. • Capitalizing on the experience and knowledge of the projects: o The JTS should be obliged to inquire the feedback of project actors on processes, tools, manuals, templates etc. related to the operational project implementation – both initially when designing them (for instance, through reviews of new templates, processes etc. by experienced partners) and later on on a regular basis (for instance through progress reports, surveys etc.). o The JTS should provide support to projects via facilitation of an exchange among them, for instance through provision of platforms, thus enabling an exchange of lessons learned, useful tools etc. – possibly even across ETC programs. • There should be deadlines for FLC bodies in centralized control systems for issuing certificates. • Publicity requirements: Should be simplified, thus reducing the risk of non-compliance. For instance: Make inclusion of funding logo on promotion materials mandatory, but do not prescribe its size or location. Experience shows that compliance with publicity requirements is checked very strictly by some FLC, resulting in disproportional risk and possibly disproportional financial consequences for project actors.</p>	
<b>Germany - Respondent 3 (Non-profit organisation, NGO)</b>		
25	<p>It would be of benefit to include some reflections on measuring policy progress beyond GDP why using documents like EC beyond growth communication or roadmap. In this context the programme effects on ecosystem services most relevant for the programme area would be of help.</p>	<p>The issue eco-system services is already considered: a guiding question in section 5 (p. 27) relates to this issue. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.</p>



No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
26	With regard to priority 4 objective 4.1 and 4.2 it is not obvious that positive effects will occur. Especially there is some contradiction as priority 2.3 aims at new approaches towards CO <sub>2</sub> reduction in transport it is not clear if priority 4 will also focus on reduction of traffic or more on connecting networks which could increase traffic and with this CO <sub>2</sub> emissions.	Having a look at the main objectives of the Specific objective (SO) 4.1 and 4.2, it becomes clear that due to their focuses the SO will first and foremost contribute to a reduction of CO <sub>2</sub> -emissions and thus will likely have a positive effect on "Air and Climate". For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7.3).
27	The report should emphasize more positive incentives to avoid negative environmental effects. These could be clear sustainability criteria established as part of the project selection process or competitions with preferences for environmentally best performing projects.	Within the strategic assessment criteria (guiding principles for selection) there is already a reference to sustainable development. For this reason, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
28	The report indicates that the programme focuses rather on soft factors, this could include more positive incentives to support actions that initiate a transition towards green growth. Eco innovation is mentioned but the programme does not include incentives to stronger promote eco innovation. Also CO <sub>2</sub> reductions are a good way towards green economy but there should be more attempts to ensure rebound effects are minimised. This can affect for example the transport sector where half hearted measures to reduce traffic can end up with more traffic through improved road transport infrastructure.	The OP CE 2020 has underlined sustainability as horizontal criteria which will be respected and the strategy has already a strong focus on sustainability and environment. In addition, it has to be considered that the CE Programme is a transnational development programme. For this reason, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
<b>Germany - Respondent 4 (Other)</b>		
29	The selected environmental policy framework and the consideration of the environmental protection objectives, set by various EU and international environmental policies, prove to be relevant for the aims of the current strategic environmental assessment report. In the paper, the specific objectives and possible positive and negative impacts resulting from the implementation of the Operational Programme have been properly related to the respective environmental legislation, both national and international. This on its turn will contribute to the programme's sound implementation.	This comment is a general assessment regarding the content of the environmental report, with no suggestion of improvement. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 5).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
30	It can be positively highlighted that the draft OP shows a clear understanding of the importance and urgency of measures for protection of the environment, the preservation of natural resources, the climate change, the pressure, to which the environment has been exposed and the risks of neglecting the importance and urgency of this pressure.	This comment is a general assessment regarding the OP CE 2020, with no suggestion of improvement. For this reason, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
31	The positive development of the renewable energy resources field has been correctly highlighted in the report. Yet, the existing disparities in the share of renewables in different parts of the region should also be considered.	In light of the size and complexity of the study area, national (NUTS 0) as opposed to regional level (NUTS 2) data is used (see scoping report). For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.4).
32	Additional focus should be set on the existing problems related to the implementation of regional energy policies, its conflicts and strategies of conflict resolution.	Section 6 refers to the description of the current state of the environment - in most parts represented by statistical data. Accordingly, the description of existing problems related to the implementation of regional energy policies would go beyond the scope of this section. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.4).
33	The strategic environmental assessment report correctly emphasizes the predominantly indirect nature of environmental impacts that could be expected as a result of the implementation of projects within the future OP.	This comment is a general assessment regarding the environmental report, with no suggestion of improvement. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
34	The environmental report states that the improvement of territorially based energy planning strategies and policies supporting climate change mitigation (Priority axis 1 – innovation for a more competitive region) could lead to occurrence of negative environmental results. Yet, in the text the risk for occurrence and the essence of the expected possible negative impacts could be explained more broadly.	It has been more clearly emphasized that the description within the “Finding” (Specific objective 2.2, Water) is an example of possible negative environmental effects on water. Thus, this comment was considered relevant and has thus been integrated in the environmental report (section 7.1).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
35	<p>The expected positive results from the development of integrated environmental management capacities, among others for the use and protection of water resources (Priority axis 3 – natural and cultural resources for sustainable growth) and the expected negative impacts from the development of multi modal freight solutions (Priority area 4:– transport for better regional connectedness) have been very correctly highlighted. Yet, a reference to the importance of consumption behaviour and the role of daily routines and practices is missing.</p>	<p>Section 7 represents the "Findings" and "Recommendations" on basis of the environmental assessment. This comment is neither a "Finding" nor a "Recommendation" which results from the environmental assessment of the OP CE 2020. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7).</p>
36	<p>The importance of the improved environmental management of functional urban areas for better control on the land consumption and revitalization of brownfield sites as well as for improvement of the water quality due to prevention of water pollution (Priority axis 3 – natural and cultural resources for sustainable growth) could also be supported with arguments about the improved general quality of life in functional areas, the optimized use of the territory and promotion of endogenous resources and potentials.</p>	<p>Due to their general character the proposed arguments are not suitable to complement the positive effects on "Soil" (see Specific objective 3.3, p.60) - except for "optimized use of the territory". This argument, however, is already taken up within the description of the "Finding". This comment was considered not relevant for the reason mentioned above and has thus not been integrated in the environmental report.</p>
37	<p>The promotion of economic and social innovation and the resulting building up of skills and competences of the regional actors (Priority axis 1 – innovation for a more competitive region) could lead to significant positive environmental impacts. This could also be confirmed with regard to the development of low carbon strategies, promoting the use of renewable energies and energy efficiency (but also channeling investments and mobilizing stakeholders!) and the promotion of low-carbon mobility and the reduction of CO2 emissions (Priority axis 2 – low-carbon strategies). The positive impacts as a result of the elaboration of new transport concepts (Priority area 4 – transport for better regional connectedness) have been correctly evaluated, too. It should be, however, stated that the improved connectedness of the region resulting from the development of the transport and leading to increased economic relations between the different parts of the region and between the region and other parts of Europe could also lead to indirect negative environmental impacts (increased transport flows within and with the region for instance).</p>	<p>Having a look at the main objectives of the Specific objective 4.1 and 4.2 it becomes obvious that due to their focuses the SO will first and foremost contribute to a reduction of CO2-emissions and thus will likely have a positive effect on "Air and Climate". For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7.3).</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
38	The lowered CO2 emissions as a result of low carbon mobility concepts in functional areas (Priority axis 2 - low-carbon strategies), the positive environmental impacts of the implementation of integrated regional transport nodes and intermodal freight solutions (Priority axis 4 - transport for better regional connectedness) as well as the healthy living conditions as a result of the sustainable use of natural resources (Priority area 3 - natural and cultural resources for sustainable growth) have been correctly assessed.	This comment is a general assessment regarding the environmental report, with no suggestion of improvement. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7).
39	The emphasized importance of integrated environmental approaches for the prevention of usage conflicts and external pressures (Priority axis 3 – natural and cultural resources for sustainable growth) has been correctly brought in the programme agenda and could be moved more to the forefront.	The integrated management approach is already mentioned and highlighted within the OP CE 2020. For this reason, this comment was considered not relevant and therefore no integration in the CE OP2020 has been suggested.
40	The positive impacts of the protection and sustainable use of natural resources (Priority area 3 - natural and cultural resources for sustainable growth) and the significance of cultural heritage and landscape for development of regional identity could be considered an important milestone for the future development of the region. In order to avoid or mitigate possible negative environmental impacts on the cultural heritage and landscape, which could be a result from the implementation of regional energy planning strategies for instance (Priority axis 2 – low-carbon strategies), a timely investigation of the local and regional potentials and regular monitoring of hazardous measures should be promoted.	The suggestion within the comment is already covered by OP CE 2020. For this reason, the comment was considered not relevant and no integration in the OP CE 2020 has been suggested.
41	The monitoring measures described in the Environmental report provide a promising basis for evaluation of possible environmental effects occurred as a result of projects' implementation. Positive to assess is the focus on the need for timely identification of significant negative impacts already before the project implementation phase. However, the importance of proposals for interventions to counteract or mitigate possible negative effects should be emphasized stronger.	The importance of proposals for interventions to counteract or mitigate possible effects is already emphasised within section 8. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 8).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
42	The involvement of qualified assessors with the necessary environmental expertise could also contribute to the timely and proper assessment of project proposals and project outcomes.	Section 8 (Monitoring measures) is already suggesting this issue for integration in the OP CE 2020 by stating that external experts with environmental expertise should be involved within the quality assessment of the project proposals. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 8).
43	<p>The programme has been developed in line with the superordinate policies and objectives of the European Union, clearly shown in the selection of its thematic objectives. The proposed priority areas and specific objectives are tailored to the Europe's long-term goals for growth and jobs as laid down in the Europe 2020 Strategy. At the same time, the programme builds upon the results of previously implemented programmes and takes good consideration of other European and national programmes and policies. The inclusion of the following topics, currently missing or underrepresented within the program objectives, could be considered reasonable:</p> <ul style="list-style-type: none"> <li>- regional branding and better promotion of the region's endogenous potentials within and outside the region,</li> <li>- urban-rural relations and territorial cohesion,</li> <li>- usage and transfer of already available knowledge,</li> <li>- improvement of framework conditions for a more effective implementation of projects.</li> </ul>	This comment do not refer to SEA-related issues and has thus not been considered in the environmental report and within framework of the SEA no integration in the OP CE 2020 has been suggested.
<b>Greece</b>		
<b>Greece - Participant 1 (National public authority)</b>		
44	Water Scheme of implementation of the Nitrates Directive: It contains actions such as determination of the vulnerable zones (compulsory) and implementation of Actions Plans. Certainly, the formulation and keeping of the Codes of Good Agricultural Practices on the nitrate vulnerable regions are n't voluntary. They are part of the vulnerable zones action plans (page 21, 2nd para).	This comment was considered relevant and has been integrated in the environmental report (section 5.2).
45	Fauna – Flora & Biodiversity The UN Convention on Biological Diversity has reference the "Rio, 1992". The "Nagoya 2010" concerns the complementary protocol that decided in Nagoya- Kuala Lumpur (2010) during a COP and focused on the encouragement of the Cartagena Protocol (Biosafety), page 26/2nd para	This comment was considered relevant and has been integrated in the environmental report (section 5.6).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
46	(Page 69) Specific objective 3.3: Possible effects on the environment resulting from the implementation of the CE 2020 programme. We wonder which reasons define potentially the positive impacts of the management of the functional urban areas on “Fauna – Flora – Biodiversity”. Recommendation: Neutral.	The "Finding" (p. 71) already substantiates the positive effects of Specific objective 3.3 on “Flora, Fauna and Biodiversity”. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7.5).
47	Page 73 The point have to be corrected in the relative figure of the page (there is no title and no number). Generally is it proper to be different the legend type (between ‘figures’ - ‘tables’) for the literature of the text?	The environmental report do not differentiate between “figures” and “tables”. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
48	(Page 69) Specific objective 4.1: The better connections to national & European transport networks dn’t certify that there are not negative effects on the Fauna – Flora – Biodiversity” issue.	Having a look at the main objective of the Specific objective 4.1 it becomes clear that due to its focus the SO will likely have no possible negative effect on "Flora, Fauna and Biodiversity". For this reason, this comment was considered not relevant and has thus not be integrated in the environmental report (section 7.5).
49	Recom: Any proposal in the framework of the specific objective 4.1 have to include an action study that this will be predicted potential effects on nature and the ways to face them.	Since the national environmental legislation in place in the different Member States defines when a environmental impact assessment or other measures (e.g. permits) are required, it makes not nescessary to include additional rules at programme level. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 is suggested.
50	General Remarks: As its referred (page 8) key-point of the SEA Directive is the early stage undertaken of appropriate remedy actions in order to form “monitoring measures that must be part of and be implemented” within the CE 2020. It is unclear which actions will be taken when the applicant proposal wouldn’t fix appropriately its project impacts. It needs more.	As mentioned in section 8 of the environmental report on monitoring measures project proposals have to describe their potential environmental effects which is included in the project application form - this is the earliest possible stage. For this reason, this comment was considered not relevant and has thus been integrated in the environmental report (section 8).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Hungary</b>		
<b>Hungary - Respondent 1</b> (National public authority)		
51	<p>We recommend completing the table on pages 21-22 as follows:</p> <ul style="list-style-type: none"> <li>- Environmental policy: 98/83/EC Drinking water directive</li> <li>- Qualitative Environmental Objective: Ensuring healthy drinking water across Europe</li> <li>- Derived guiding question: Does the specific objective has an influence on the quality of drinking water?</li> </ul>	<p>As described in the scoping report the choice of environmental policies is in some cases limited to superordinate frameworks as these imply supplementary provisions regulating particular attributes of the selected environmental issues. For example the EU Groundwater Directive (2006/118/EC), EU Drinking Water Directive (98/83/EC) and EU Bathing Water Directive (2006/7/EC) are subordinated to the key directive EU Water Framework Directive (WDF) (2000/60/EC). For this reason, only the WDF which also reflects the environmental objectives of the subordinated Directives is taken into consideration here. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.</p>
52	<p>The content in the framework of environmental policy is supported both in terms of soil-protection and environmental health, since the soil-related environmental guidelines refer to preventing and diminishing soil-pollution and soil-degradation, the preservation of soil-functionality and the sustainable use of soil-resources respectively.</p>	<p>This comment does not include a suggestion of improvement but rather a description of the policies relevant for the environmental issue "Soil". Thus, this comment was not considered relevant and will not be integrated in the environmental report (section 5.2).</p>
53	<p>Special attention has to be paid to the quality of indoor-air, which is in close connection with outdoor-air. People spend most of their time in closed places, so indoor-air with low quality may have several harmful effects on human health.</p>	<p>A Directive which relate directly to indoor-air do not exist at EU-level. Thus, this comment was not relevant and has not been integrated in the environmental report (section 5.3).</p>
54	<p>Only anthropogenic sources of contamination are listed on page 34. A project or an action may have a negative effect on these, although positive effects could be experienced with natural sources as well.</p>	<p>Within the description of the current state of environment the choice of indicators were dependent on various factors such as the availability of reliable data or fields which are considered the most relevant in terms of environmental effects (see scoping report). For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.3).</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
55	<p>The Soil of Central Europe and especially in the Carpathian Basin is very vulnerable and exposed to physical and chemical degradation. Not only the heavy metal contamination of the soil has to be highlighted related to the chemical degradation, but also the soil acidification. For example there is a chemical time-bomb: heavy metal becomes mobilized on low soil pH and through its absorption heavy metal components, which are bound to soil components on neutral pH, infiltrate into the food chain. Industrial emission, agriculture and transport contribute to this situation. We must not forget about pollution derived from the usage of fertilizer and pesticides prevalent in the traditional, large-scale agricultural production. Furthermore the soil pollution caused by livestock farms and the concentration of organic pollutants in the soil (TPH, PAH and PCB content) over the environmental limit resulting from human activities have a significant impact as well. All of these factors have a direct effect on the quality deterioration of the ground water and drinking water bases and directly and indirectly pose a health risk to people and to the environment.</p>	<p>It is not possible to consider neither specific territories nor regional peculiarities within the description of the current state of environment (section 6), since this would go beyond the scope of the environmental report for CE 2020 Programme. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.3).</p>
56	<p>Similar to the sulphur-dioxide pollution the presentation of NO<sub>2</sub> and PM<sub>10</sub> load as indicator components would be welcomed in the section 5.4 for the characterization of air quality in the Central European countries. Justification: sulphur dioxide emission has been significantly reduced in the past decades due to the developments carried out in the industrial facilities of the energy sector, and due to the measures taken related to the sulphur content of fuel – of non-transport use as well. Thus, in the recent years there has been no sulphur-dioxide pollution in Hungary neither in respect of the 24-hour nor the annual environmental limits.</p>	<p>Due to the limited scope within the description of the current state of environment, sulphur-dioxid is used as an exemplary indicator for the ambient air quality. Regarding the whole CE programme area effects of sulphur-diooxid on the air quality still exist. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.</p>
57	<p>Special attention has to be paid to the quality of indoor-air, which is in close connection with outdoor-air. People spend most of their time in closed places, so indoor-air with low quality may have several harmful effects on human health.</p>	<p>Within the description of the current state of environment the choice of indicators were dependent on various factors such as the availability of reliable data or fields which are considered the most relevant in terms of environmental effects (see scoping report). For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 6.4).</p>



No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
58	<p>We strongly support and consider the following two specific objectives under the 3rd priority axis to be especially significant in terms of human and environmental health and soil-protection:</p> <p>3.1. To improve integrated environmental management capacities for the protection and sustainable use of natural resources and heritage</p> <p>3.3 To improve environmental management of functional urban areas</p>	<p>Since this comment is a general assessment, with no suggestion of improvement, this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.</p>
59	<p>We support the monitoring measures in the environmental report in terms of human and environmental health.</p>	<p>Since this comment is a general assessment, with no concrete suggestion of improvement, this comment was considered not relevant and has thus not been integrated in the environmental report (section 8).</p>
<b>Hungary – Respondent 2 (Non-profit organization, NGO)</b>		
60	<p>Based on the attached diagrams the judging differences of the Member States are also apparent in the viewpoint systems. For example, as to Figure 8 the following question arises: To what extent could the hydroelectric power stations (e.g. Austria, Slovakia, Germany, Croatia) be considered as significant interventions to the water basis, wildlife and to the environment as also indicated by Table 6.1, Point 2.2. Does the impact relate to either number of cases (i.e. how many living waters are concerned) or water quantities? According to Table 6.1, Point 4.1 passenger traffic does not pose any negative effect on waters but this statement can be questioned, although regarding its comprehensive utility it is presumably true (e.g. air pollution reduced) as it is also described in Point 4.2. River bed works (e.g. bed dredging for navigation canals, bed regulations and control, artificial coastlines, dams, power stations, parallel constructions, intensive water traffic etc.) cut down or change the natural character (and wildlife) of rivers, influencing remarkably, mostly in a negative way the water wildlife and – directly or indirectly – the riverside wildlife as well. As regards sea fishery, similar problems emerge (economic aspects together with their international implications). A hydroelectric power station can take effect even on several hundred miles (inflated stage, washing away, excavating, continuous river bed dredging downwards).</p>	<p>Having a look at the main objectives of the Specific objective (SO) 4.1 and 4.2, it becomes clear that due to their focuses the SO will first and foremost contribute to a reduction of CO<sub>2</sub>-emissions and thus will likely have a positive effect on "Air and Climate". For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7.3).</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
61	<p>Effects made on the soil are essentially connected with economic and agricultural activities and determined by local conditions. Not even here single methodologies can be elaborated for each country, nor for regions in every case. Preservation or re-establishment of the natural habitats is a financial question at the same time, as they are strongly influencing the economic performance. The effects of GMOs, intensive plant cultivation and monocultures are also controversial, making more difficult to take decisions.</p>	<p>Since this comment is a general assessment, with no suggestion of improvement, this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.</p>
62	<p>The economic effects are substantially dominant also here (nature of the power stations, economic restructurings) while the environment protectional points of view have only minimal effects (e.g. actions beyond the sulphur dioxide filters of cement-works and carbon power plants). For this reason the economic background should be explored in order to reach serious results. Renewable energy sources (e.g. water and wind-power) as well as energy plants are questionable, too. Eventually their total environmental usefulness is problematic from certain points of view. Cutting down of rail transport was especially considerable in the Eastern European countries due to the retardation of railway enhancements for several decades; developments in this field will remain pending after the completion of this program as well, probably because of the limited financial resources.</p>	<p>Since this comment is a general assessment, with no suggestion of improvement, this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.</p>
63	<p>Would the basic human right to the healthy environment be transformed into parameters making it measurable in this way?</p>	<p>A comprehensive description of the current environmental state for each environmental issue would go beyond the scope. Thus, the current state can only be represented by a choice of exemplary indicators. The choice of indicators was dependent on various factors such as the availability of reliable data or fields which were considered the most relevant in terms of environmental effects (see scoping report). For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
64	It was described in details in the above mentioned viewpoints. The natural environment – e.g. wildlife, habitats – is fundamentally economic issue that can be treated exclusively by environment protectional measures only temporarily; another reason to welcome the CENTRAL EUROPE 2014-2020 Operative Program as an effort to reach a long term solution.	The CE 2020 Programme is not an “Environmental Programme” instead it is a transnational cooperation programme which aims to promote cooperation between the regions of the CE programming area. In addition, it has to be pointed out that in section 8 several measures are mentioned in order to prevent possible negative effects of the projects. For these reasons, this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
65	Regarding water bases and water motions, the CENTRAL EUROPE Program should better take into account the geological conditions in the included areas. On the one hand this needs cross-border arrangements, while on the other hand it cannot be limited only to steps applied in the areas included in the Central Europe Program, because a considerable part of the effects comes from outside sources, regarding areas and water quantities as well. Also the special law and regulation systems of the different countries have to be taken into consideration, because their harmonization is inevitable to the successful program. Directives will provide only the framework in this respect.	In section 8 various monitoring measures at programme and national level as well as at different project stages are mentioned in order to prevent possible negative effects of the projects. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
66	Ground state and pollution depend on the economic/agricultural activities, the given technologies, water basis and water streams, state of the air, the presence of invasive species, introduction of not indigenous wildlife, the protection measures and financial resources, as well as on the legal environment. All these are totally divergent in different countries with significant variation even within them. No uniform, general principles can be laid down here; the problems could be treated only with local solutions. Inconsistently with those alleged in the paper, traffic and transport exert verifiable influence on the soil (local pollution, confusion due to construction of highways).	The OP CE 2020 is a European Territorial Cooperation Programme which aims to promote cooperation between the regions of the CE programming area. Due to this focus, it would go beyond the scope of the CE 2020 Programme to tackle issues mentioned in the comment. This comment has no direct reference point to the environmental report or the OP CE 2020. For these reasons, this comment was considered not relevant for the OP CE 2020 and no integration in the OP CE 2020 has been suggested.
67	Outsourcing „dirty” technologies into the less developed countries: Problems arising from the release of greenhouse gases (GHG) will not be resolved with the translocation of the environment polluting technologies of high energy demand into China.	This comment is a general assessment. Accordingly, there is no direct reference point to the OP CE 2020. There are no actions which promote this mentioned issue. For this reason, this comment was considered not relevant for the OP CE 2020 and no integration in the OP CE 2020 has been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
68	<p>The study should more intensively highlight other environmental hygienic issues as well, such as outsourcing „dirty” technologies into less developed scenes, mostly to the Far East and Africa. However, this is an existing problem even in Central European areas involved in the Program, as described by the study. Roots can be found primarily in the economic differences, and only in the second place in engagement, cultural education and responsiveness to the environmental affairs.</p>	<p>The OP CE 2020 is a European Territorial Cooperation Programme which aims to promote cooperation between the regions of the CE programming area. Due to this focus, it would go beyond the scope of the CE 2020 Programme to tackle issues mentioned in the comment. This comment has no direct reference point to the environmental report or the OP CE 2020. For these reasons, this comment was considered not relevant for the OP CE 2020 and no integration in the OP CE 2020 has been suggested.</p>
69	<p>This study can be considered as a positive contribution (Table 6.5, Point 2.2) to highlighting the negative effects caused by monocultures and energetic plantations (in a global scale also the cultivation of non-nutrition plants has strongly negative moral effects for countries stricken with starvation).</p>	<p>Since this comment is a general assessment, with no suggestion of improvement, this comment was considered not relevant and has thus not been integrated in the environmental report.</p>
70	<p>Protection or preservation of the cultural heritage and landscape is primarily important not from environment protectional points of view, although it is indisputable that all measures taken may have large (positive or negative) effects in this field. Please remember, that some EU Member States sacrificed whole villages for building hydroelectric power stations and damming up the water! As per traffic and transport, in contrary to those described in the study they may exert significant effects on the cultural heritage and landscape in both positive and negative directions (+/-).</p>	<p>Having a look at the main objectives of the Specific objectives 4.1 and 4.2 it becomes clear that due to their focuses the SO will likely have no possible negative effect on "Cultural Heritage and Landscape". For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 7.6).</p>
71	<p>It is suggested to review effects made on the environment in a global scale because the environmental influences extend beyond boundaries. This study clearly points out that regarding environment affairs certain countries also during their EU membership have followed totally divergent environment strategies. While this is the case, objectives of this program fall very far from the realization. For example, Hungary refuses the hydroelectric power stations at the expense of utilizing renewable energy sources as well as traffic and transport, being at the same time favourable for wildlife, as far as we know. Similarly, raising dams will strengthen flood safety reducing the probability of high floods, but in Hungary the so-called Vásárhelyi Plan Program provides a more nature friendly solution. Although the study is very interesting and useful, but in the lack of detailed financial and utility as-</p>	<p>The OP CE 2020 is a European Territorial Cooperation Programme which aims to promote cooperation between the regions of the CE programming area. Due to this focus, it would go beyond the scope of the CE 2020 Programme to tackle issues mentioned in the comment. This comment has no direct reference point to the OP CE 2020. For these reasons, this comment was considered not relevant for the OP CE 2020 and no integration in the OP CE 2020 has been suggested.</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
	<p>pects, the outlined possibilities cannot be prioritized according to importance as also referred to in Table 6.8, Point 2.2. Measures laid down in this study cannot be separated from the relevant EU steps; moreover, they should be interpreted for the global human population. It is substantially influenced by consumer habits. This question is dealt with by most feasibility studies as well. Exploitation possibilities are extremely various depending on local specialities so their cost will also be very divergent. Reuse and re-cultivation are depending substantially on the effective legislation, even based upon the same directives. Transport should also be mentioned here that – despite of the considerable expenses – is present in high portions (remember the free movement of goods, for example the principle of world trade vs. proximity). Importation of seasonal products, e.g. tomatoes from The Netherlands or garlic from China arise transport problems that cannot be treated with the possibilities (regulations) provided in this section because other factors emerge as well. Looking at Table 6.7 and relying upon the statements therein – in accordance with the study – the maximum profit would be ensured by the maintenance actions related to cultural heritage and landscape, but is it really the conclusion of this study? In total, objectives of the program should be appreciated and supported. However, the amount calculated in this program is only a fragment of the necessary sources needed to reach the effective and tangible results, but the program budget seems to be somewhat high to make assessments and further studies.</p>	
<b>Italy</b>		
<b>Italy - Participant 1 (National Public Authority)</b>		
72	<p>In general, we note that for the definition of the main environmental objectives, only the supranational level has been considered. We believe it could be useful to analyze also the environmental goals of the individual States involved in the Programme.</p>	<p>Since superordinate environmental policies on EU-level set the framework for environmental policies on national level, environmental policies on national level will not be additionally considered. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 5).</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
73	Regarding the “cross-cutting themes”, we appreciate the effort made in mentioning them in relation to the environmental objectives, but we think it could be more useful to know how these information were used in all analyses of the Environmental Report.	The cross-cutting themes are considered within the different sections. Given the cross-cutting character of these issues, the description of their current state and likely evolution as well as their assessment regarding possible effects resulting from the OP CE 2020 have been integrated into the appropriate environmental issues. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
74	The elements presented in chapter 7 - “Monitoring measures” (Environmental Report) do not fully define a monitoring plan that can follow the entire implementation of the Programme. There are not mentioned, in fact, the indicators and the necessary resources to carry out the monitoring. Environmental indicators must allow to: <ul style="list-style-type: none"> <li>• represent the context in which the program operates</li> <li>• measure the implementation of the actions planned by the program</li> <li>• measure the environmental effects (change of environmental context) attributable to the action.</li> </ul>	On the one hand it is not task of the SEA experts to establish an indicator system. As laid down in the SEA Directive (Annex I, i) the environmental report should provide "a description of the measures envisaged concerning monitoring in accordance with Article 10." On the other hand the territorial analysis in the OP CE 2020 (section 1) is described, among other issues, by environmental context indicators. In addition, the monitoring system for measuring the implementation of planned actions is described in the section 2. Within this section output indicators are provided. For these reasons, this comment was considered relevant neither for the environmental report nor the OP CE 2020. Thus, this comment has not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
75	The previous Transnational Programme for Central Europe is mentioned in the Environmental Report, for example at page 12 it is stated: “the OP CE 2020 is based on the experiences made within the CENTRAL EUROPE 2007-2013 Programme which already showed close links to the EU 2020 strategy”. We consider that it could be more appropriate to give greater clarity in the choice of the environmental specific objectives for the new Programme, specifying how the results of previous Programme analysis (speaking about the environmental aspects more closely, and therefore the effects and effectiveness of actions taken / initiated) have been taken into account. Information and results obtained from the previous Programme could allow a greater deepening of OP CE 2020 contents, on the contrary, information in the submitted reports is generic and does not allow the proper understanding of the contents.	In the OP CE 2020 a background in depth analysis (e.g. on the impacts of previous or other programmes and initiatives) is not foreseen in the OP template. However, lesson-learned of the CE2007-2013 programme (from monitoring, expert opinions, evaluations, thematic studies - also on environment) and from stakeholder consultations have been considered. For this reasons, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
76	Also the analysis in the Environmental Report seem to be generic and some propositions are not clear; for example, the identification of possible effects on the environment is not supported by sufficient information	The approach for the environmental assessment is sufficiently described in section 5.2 and section 8. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
77	Moreover, no mention is made to the results of the SEA monitoring program for Programme 2007-2013, useful information to be taken into account to direct the choices of the OP CE 2020.	Lesson-learned of the CE2007-2013 programme (from monitoring, expert opinions, evaluations, thematic studies - also on environment) and from stakeholder consultations have been considered. For this reasons, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
78	Then, in addition to the above item and considering that the Programme presented is the second "Transnational Cooperation Programme Central Europe" (and, therefore, many aspects of the assessment has already been analyzed in the previous programme), the following is noted: - it is important to consider not only the Directive 2001/42/EC, but also the national transpositions of the Directive and, in particular what concerns the Environmental Report contents	Since the CE 2020 Programme is an ETC-Programme with different participating Member States, the SEA conducted within the programming procedure is based on the superordinate SEA Directive EU/2001/42 at EU-level. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
79	- there is no framework for the Programme consistency with other plans, programs, projects, agreements, policies regarding the territory (as requested also by the Dir. 2001/42/EC, Annex 1: a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes)	Due to the fact that a large number of plans and programmes at the level of the participating Member States exist, it is not feasible to describe the relationship with other plan or programmes in an adequate way. This would go beyond the scope of the environmental report of the ETC-Programme CE 2020. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
80	- it is not correct, for the States not totally involved in the Programme, to consider information and data at national level; for example in Italy there is a deep difference between North and South regions and then the national level is not representative of the Italian Northern regions.	In light of the size and complexity of the study area, national (NUTS 0) as opposed to regional level (NUTS 2) data is used. In addition, it has to be considered that secondary data provided by the statistical office of the European Union (Eurostat) has been used in order to ensure both sufficient availability and comparability of data for each CE 2020 Member State. These data are often only available at national level and not at regional level. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
81	Finally, we highlight that the list of Italian Regions involved in the Programme (see list in note 3, page 15 of the Environmental Report), do not correspond to the figure at page 15 (see also page 1 of the Operational Programme Report).	This comment was considered relevant for the environmental report. For this reason, this comment has been integrated in the environmental report (section 4.1).
<b>Italy - Participant 2</b> (Regional or local public authority)		
82	Evaluated the environmental policy framework, we consider that the following issues should be considered within the main elements, taking into consideration their strong influence on environment and cultural heritage: agricultural use, energetic resources, mobility, transports and waste. The cross-cutting issue should be the analysis of the interaction among the main environmental issues.	In order to provide a clear overview of the relevant environmental policies of the selected environmental issues and cross-cutting themes, the environmental policies and objectives will be presented separately as presented in section 5. For this reason, this comment is considered not relevant and will thus not be integrated in the environmental report.
83	The SEA monitoring measures of CENTRAL EUROPE 2014-2020 Programme should start from the results and considerations coming from the monitoring of CENTRAL EUROPE 2007-2013 Programme.	The experiences from CENTRAL EUROPE 2007-2013 Programme have been considered and further adapted to the CENTRAL EUROPE 2014-2020 Programme (e.g. self assessment in the application form or quality assessment criteria). For this reason, this comment was considered not relevant for the environmental report as well as for the OP CE 2020. Thus, this comment has not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
84	The indicators should considered all relevant effects, even the ones which a secondary, aggregated, direct/indirect, synergic, at short, medium and long term, permanent and temporary, positive or negative character.	Within the framework of the OP CE 2020 and the SEA it is not feasible to set up and implement indicators which meet these requirements. For this reason, this comment was considered not relevant and therefore no integration in the CE OP2020 has been suggested.
85	Granted that the SEA concerns plans and programmes which might have significant impacts on environment and cultural heritage, the information within the documents presented are not detailed enough for evaluating possible effects or interference with Natura 2000 Network sites (SIC and ZPS), which might happen during the implementation stage. Therefore, it is pointed out that an evaluation might be realized in a further stage, when the information will be more. Nevertheless we take the opportunity to make some suggestions to integrate the proposed programme:	This comment is not a suggestion of improvement but rather a finding concerning the evaluation of possible effects or interference with NATURA 2000. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.



No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
86	the programme CENTRAL EUROPE 2014-2020 should be complemented by the results, observations and monitoring datas of the CENTRAL EUROPE 2007-2013 Programme	In the OP CE 2020 a background in depth analysis is not foreseen in the OP template (e.g. on the impacts of previous or other programmes and initiatives). However, lessons-learned of the CE2007-2013 programme (from monitoring, expert opinions, evaluations, thematic studies - also on environment) and from stakeholder consultations have been fully considered. For these reasons, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
87	- with regard to the environmental, social and economic principles, the external coherence should be considered and evaluated in relation with other already existing plans both at National and supranational level.	Due to the fact that a large number of plans and programmes at the level of the participating Member States exist, it is not feasible to describe the relationship with other plan or programmes in an adequate way. This would go beyond the scope of the environmental report. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
<b>Poland</b>		
<b>Poland, Respondent 1</b> (Regional or local public authority)		
88	Soft factors should be basis for further infrastructure activities. <i>(SEA experts: This comment has been made within the context of the environmental assessment of the environmental issue "Population and Human Health").</i>	Due to its unspecific character, it is not clear if the comment relates to the environmental report or the OP CE 2020. Thus, the comment was considered not relevant for the reason mentioned above and has been integrated neither in the environmental report nor in the OP CE 2020.
89	Soft factors should be basis for further infrastructure activities. <i>(SEA experts: This comment has been made within the context of the environmental assessment of the environmental issue "Cultural Heritage and Landscape").</i>	Due to its unspecific character, it is not clear if the comment relates to the environmental report or the OP CE 2020. Thus, the comment was considered not relevant for the reason mentioned above and has been integrated neither in the environmental report nor in the OP CE 2020.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Poland - Respondent 2</b> (National Public Authority)		
90	We suggest to include 'cultural institutions' as a type of beneficiaries in the Specific Objective 3.2 (page 48 of the OP). Cultural institutions own many cultural heritage resources - both tangible and intangible. Simultaneously they are places of sharing and presentation of cultural resources. Thereby it should be underlined that cultural institutions have rich experience in the field of cultural heritage protection and cultural heritage administration. They also have a great capacity to use in the creation of strategies and policies in the field of culture.	Cultural institutions are represented by associations, NGOs, public authorities, research institutions etc. which are all types of beneficiaries already listed in the OP for Specific objective 3.2. For this reason, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
<b>Poland - Respondent 3</b> (National Public Authority)		
91	1.1.3 (p.7): Suggestion to replace the term „labour market migration” with term „labour migration” as it seems to be more common and clear term. - 8.2 (p.106): Suggestion to edit the sentence „This will contribute.... It is arguable if youth unemployment is directly caused by demographic change, migration and brain-drain. Moreover, it's not clear what the Authors mean by that: • negative influence of immigration on situation of the youth in the receiving country? or • the situation of “baby boom” generations entering labour market? It requires further clarification or removing the term “youth unemployment” from the bracket. On the contrary, it is worth noticing that migration and brain-drain could be driven by youth unemployment in the sending country.	This comment is not a SEA-related issue. Thus this comment has not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
92	- 3.1 (Examples of actions supported within specific objective). Suggestion to change the following sentence: “Harmonising environmental management concepts...” into “Harmonising environmental management concepts... (e.g. adaptation measures, disaster management and rescue systems)”. Analyses of the situation of the programme area in the field of Climate Change (page 4) pointed out risk prevention measures including disaster management and rescue systems. Therefore, it is reasonable to include these measures in the example actions.	The corresponding Investment Priority 6c (relating to Thematic objective 6) is: “conserving, protecting, promoting and developing natural and cultural heritage” and the Specific objective 3.1 is about “To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources”. Disaster management, adaptation measures and rescue systems relate to another Thematic objective (No. 5) and Investment Priority. For internal coherence reasons, this comment is not considered relevant and no integration in the OP CE 2020 has been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Poland - Respondent 4</b> (Non-profit Organization, NGO)		
93	<p>The idea of Central European Transport Corridor shows us that any cargo sent from Baltic Sea's ports sooner or later will be transported by the corridors which will meet in "Brama Morawska" - Moravian Gate. Odra River Waterway located in "Odra Valley" (which we hope will meet in the future standards of international waterway) determine buliding link between Odra and Dunai, which will directly increase capacity of whole transport corridor. Using the water transport on this area will help to minimize the CO2 emission. The place where link between Odra-Dunai Canal will be located and it's further course to the Adriatic will open new ligistic possibilities for "Bratyslawa-Wien junction. Such link will met the logistic expactations in lines north-south and east-west. Canal from Bratislava (from Dunai to the Adriatic Sea) shortens actual waterway connection between North Sea and Black Sea, opening hereby possibilities for any cargo flow configuration in the Mediterranean Sea area. Existing sea routes becomes "too tight" and time needed for their travelling too long and expensive. There are lot of ports, logistic centers and shipyards (about 60 ships produced by year) by the over 600km length of existing Odra River Waterway. Important industries in the Odra region are Zaklady Azotowe Kedzierzyn S.A., KGHM POLska Miedz S.A and Silesian ironworks, mines, car factories (Gliwice port). The biggest inland port by the Odra River Waterway located in Kozla has transshipment potential 4 000 000 ton's per year. Today it's unused and it's Kedzierzyn-Kozle Local Government's investment offer. Including Odra into TEN-T is the biggest shipping project in the Central Europe with the continental dimsnesion. "Investment, not consumption will led EU out of crisis" "Milos Zeman" "Poverty ends where road begins..." Ivan Del Vechio</p>	<p>Since this comment is a description of the transport (network) situation, with no suggestion of improvement, this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.</p>
<b>Poland - Respondent 5</b> (National Public Authority)		
94	<p><i>Subject of comment:</i> OP, p. 14, The sustainable use of natural and cultural resources serves as an important location factor but they are often not sufficiently used.</p> <p><i>Suggested wording (added text in bold):</i> The sustainable use of natural and cultural resources serves as an important location factor but they are often not sufficiently used, <b>e.g. in tourism.</b></p>	<p>This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
95	General remark: Regional branding and better promotion of the regions for tourism should be added as an example of actions under Priority 3.	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.
96	<p><i>Subject of comment:</i> OP, p.7, – Richness and diversity of landscape, natural and cultural heritage (important location factors).</p> <p><i>Suggested wording (added text in bold):</i> Richness and diversity of landscape, natural and cultural heritage (important location factors) <b>e.g. conducive to tourism development.</b></p>	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.
<b>Poland - Respondent 6 (National Public Authority)</b>		
97	<p><i>Subject of comment:</i> SEA, p. 6. Priority axis 2: Building and increasing capacities for low carbon strategies in different fields such as improved energy efficiency in public infrastructure, strengthened use of renewable energy resources or enhanced low-carbon mobility will contribute to a reduction of emissions (CO<sub>2</sub>, GHG) and thus to climate change mitigation.</p> <p><i>Suggested wording (added text in bold):</i> SEA, p. 6. Priority axis 2: Building and increasing capacities for low carbon strategies in different fields such as improved energy efficiency in public infrastructure, strengthened use of renewable energy resources or enhanced low-carbon mobility will contribute to a reduction of <b>air pollution and</b> emissions (CO<sub>2</sub>, GHG) and thus to <b>environment improvement and</b> climate change mitigation.</p>	This comment was considered relevant and has been integrated in the environmental report.
98	<p><i>Subject of comment:</i> OP, p. 37, A high potential for the reduction of greenhouse gas emissions lies thereby within the public transport sector.</p> <p><i>Suggested wording (added text in bold):</i>A high potential for the reduction of <b>air pollution including nitric oxides emissions and</b> greenhouse gas emissions lies thereby within the public transport sector</p>	This comment was considered relevant and an integration of the topic in the OP CE 2020 (2.A.1.4e) has been suggested.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
99	<p><i>Subject of comment:</i> OP, p. 36, Its strong reliance on fossil fuels means high greenhouse gas emissions driving climate change as well as lowering air quality (e.g. particular matter and ozone).</p> <p><i>Suggested wording (added text in bold):</i> Its strong reliance on fossil fuels means high <b>air pollution including nitric oxides emissions</b> and greenhouse gas emissions driving climate change as well as lowering air quality (e.g. particular matter and ozone).</p>	This comment is considered relevant and an integration of the topic in the OP CE 2020 (2.A.1.4e) is suggested.
100	<p><i>Subject of comment:</i> OP, p. 37, Transnational cooperation can help increasing planning capacities for low-carbon mobility by bringing together fore-riders with territories lagging behind, thus enhancing low-carbon mobility in central European FUAs.</p> <p><i>Suggested wording (added text in bold):</i> Transnational cooperation can help increasing planning capacities for low-carbon mobility by bringing together fore-riders with territories lagging behind, thus enhancing low-carbon mobility in central European FUAs, <b>reducing air pollution including nitric oxides emissions.</b></p>	This comment is considered relevant and an integration of the topic in the OP CE 2020 (2.A.1.4e) is suggested.
101	<p><i>Subject of comment:</i> OP, p. 36, It will support them in the development and implementation of innovative local/regional energy planning strategies leading to an enhanced use of endogenous renewable energy potentials and reduction of CO2 emissions.</p> <p><i>Suggested wording (added text in bold):</i> OP, p. 37, It will support them in the development and implementation of innovative local/regional energy planning strategies leading to an enhanced use of endogenous renewable energy potentials and reduction of <b>pollution including CO2 emissions and improvement of air quality.</b></p>	Since Specific objective 2.2 is not directly targeting air quality, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.
102	<p><i>Subject of comment:</i> OP, p. 33, All supported actions will clearly contribute to improving capacities for increased energy efficiency and renewable energy use in public infrastructures and buildings, thereby reducing the carbon footprint.</p> <p><i>Suggested wording (added text in bold):</i> All supported actions will clearly contribute to improving capacities for increased energy efficiency and renewable energy use in public infrastructures and buildings, thereby <b>improving air quality</b> and reducing the carbon footprint.</p>	Since Specific objective 2.1 is not directly targeting air quality, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
103	<p><i>Subject of comment:</i> OP, p. 32, Transnational cooperation will help to reduce know-how disparities and increase capacities of the public sector for improving energy efficiency of public infrastructures with a view to reducing their energy consumption and CO2 emissions.</p> <p><i>Suggested wording (added text in bold):</i> Transnational cooperation will help to reduce know-how disparities and increase capacities of the public sector for improving energy efficiency of public infrastructures with a view to reducing their energy consumption, <b>air pollution</b> and CO2 emissions.</p>	<p>Since Specific objective 2.1 is not directly targeting air quality, this comment was considered not relevant and therefore no integration in the OP CE 2020 has been suggested.</p>
104	<p><i>Subject of comment:</i> OP, p. 32, Most central European regions show high energy consumption and a low degree of energy efficiency of buildings and infrastructure which are the main contributors to greenhouse gas emissions. The efficient use of energy can make an important contribution to achieving a low-carbon economy and combating climate change.</p> <p><i>Suggested wording (added text in bold):</i> Most central European regions show high energy consumption and a low degree of energy efficiency of buildings and infrastructure which are the main contributors to <b>air pollution and</b> greenhouse gas emissions. The efficient use of energy can make an important contribution to achieving a low-carbon economy, <b>better air quality</b> and combating climate change. It will also contribute to decreasing central Europe's energy import dependence.</p>	<p>Since Specific objective 2.1 is not directly targeting air quality, this comment was considered not relevant and therefore no integration in the CE OP2020 has been suggested.</p>
<b>Poland - Respondent 7 (n/a)</b>		
105	<p><i>Subject of comment:</i> OP, p. 32, Most central European regions show high energy consumption and a low degree of energy efficiency of buildings and infrastructure which are the main contributors to greenhouse gas emissions. The efficient use of energy can make an important contribution to achieving a low-carbon economy and combating climate change.</p> <p><i>Suggested wording (added text in bold):</i> Central Europe has a great diversity of cultural heritage and resources in terms of historic sites, <b>documentary heritage (e.g. archives, library collections)</b>, artefacts, traditions, cultural landscapes as well as traditional skills and knowledge and much more.</p>	<p>This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.</p>

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Poland - Respondent 8</b> (National public authority)		
106	<p><i>Subject of comment:</i> OP, p. 48, Harmonising environmental management concepts and tools on the transnational level to reduce negative climate change impacts on the environment (e.g. adaptation measures).</p> <p><i>Suggested wording (added text in bold):</i> Harmonising environmental management concepts and tools on the transnational level to reduce negative climate change impacts on the environment <b>and human lives</b> (e.g. adaptation measures).</p>	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.
<b>Poland - Respondent 9</b> (National public authority)		
107	Reference to regulations and article numbers should be updated according to the approved legislative package.	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.
<b>Poland, Respondent 10</b> (National public authority)		
108	SEA and OP should be updated, e.g. map presenting Nature 2000, OP p.5, is probably a map as of 2004. Number of NATURA 2000 sites in Poland is not 958 as stated in SEA page 47 but 983.	This comment was considered relevant and has been integrated in the environmental report. In addition, an integration of this comment in the OP CE 2020 (p.8) has been suggested – as long as the map, probably of 2004, can be replaced by a more recent map.
<b>Poland - Respondent 11</b> (National public authority)		
109	<p><i>Subject of comment:</i> OP, p. 3, However, there is also a clear east-west divide in the availability of social services: new Member States show lower expenditure for services such as elderly and child care as well as fewer medical doctors per inhabitant.</p> <p><i>Suggested wording (added text in bold):</i>OP, p. 3, However, there is also a clear east-west divide in the availability of social services: new Member States show lower expenditure for services such as elderly and child care, <b>family support</b> as well as fewer medical doctors per inhabitant.</p>	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.
110	<p><i>Subject of comment:</i> OP, p. 8, Risk of poverty for different population groups (e.g. women, migrants)</p> <p><i>Suggested wording (added text in bold):</i> Risk of poverty for different population groups (e.g. <b>families upbringing children</b>, women, migrants)</p>	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Poland - Respondent 12</b> (National public authority)		
111	OP, p. 11, Investment priorities should be fully quoted, omitting parts of them is confusing for the reader.	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.
112	<p>1. OP, SO 4.1 p.58, at the bottom of the page a sentence should be added.</p> <p>2. OP, SO 4.1, p.59, One example of actions supported within specific objective 4.1 should be added.</p> <p>3. OP, SO 4.2, p.61, As the economic development of industrialised areas is closely linked to the multimodal</p> <p><b>1. Multimodal transfer points will be also promoted and developed to streamline the movement of people and to make the passenger transport more sustainable (environment-friendly).</b></p> <p><b>2. Developing and implementing coordination and collaboration mechanisms between multimodal passenger transport actors.</b></p> <p>3. As the economic development of industrialised areas is closely linked to the <b>interregional and international exchange of goods, efficient multimodal exchange of goods</b>, efficient freight transport is crucial.</p>	This comment is not relevant for the SEA but relate rather to the national consultation on the OP and the integration is to be decided by the respective CE programming bodies.



No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
<b>Slovak Republic</b>		
<b>Slovak Republic - Respondent 1 (National public authority)</b>		
113	Recommendations regarding revision, completing, and modification of the strategic document: The overall result of the process of assessing the impacts of the OP CE as a strategic document affecting the environment at the transnational level, assessment scope defined, draft OP CE itself as a strategic document at the transnational level, report on assessing the impacts of the strategic document affecting the environment at the transnational level, opinions delivered, result of the public discussion and consultations suggest that the OP CE as a strategic document at the transnational level need not be significantly revised, completed, or modified. None of the entities affected has claimed the draft recommendations. Despite of that, however, it is necessary that the OP CE would involve the following measures in order that its implementation, optimal from the environmental aspect, could be arranged for:	Since this comment is a general assessment with no suggestion of improvement this comment was considered not relevant and has thus not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
114	Conclusions and recommendations stemming from the assessment report should be included into the draft OP CE.	Since the SEA conclusions and recommendations have been integrated into the OP CE 2020, this comment was considered not relevant and therefore no integration in the CE OP2020 has been suggested.
115	When selecting projects, criteria which would preclude or, more precisely, modify the single projects in such a manner that they would be compatible with the protection of environment, countryside, and human health, should be taken into account in the first place;	In section 8 several measures are mentioned in order to identify possible negative effects of the projects within the quality assessment of project proposals. For this reason, the comment was considered not relevant and has not been integrated in the environmental report (section 8).
116	Ensuring carrying out of thorough assessment of the environmental impacts on the level of the individual projects, plans and programmes by virtue of compliance with law governing the impact assessment, relevant EU Directives, and international conventions before they are allowed in accordance with special regulations or more precisely, before the strategic document is approved in such a manner so as to ensure optimisation of the chosen solutions and of their localisation, selection of the environmental technologies, concurrence in point of time and factual aspect of the individual implementation steps and balance among environmental, social and economic aspects of the projects, plans and programmes being carried out;	As described in section 8 all projects have to comply with the relevant EU and national environmental legislation. This aspect is included in the subsidy contract of each project. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report (section 8).

No.	SEA-issues raised	How it has been addressed in the final OP CE 2020 / final environmental report
117	When making decision about which projects are to be chosen, it is necessary to thoroughly monitor the sustainability aspect of the activity supported after the co-financing of the project has ended, and balance of both the short- and long-term effects.	A monitoring after project duration is not considered as feasible since on the side of the projects responsibilities as well as resources are not available for a further monitoring. However, a follow up of general environmental effects will be covered by measuring progress of result indicators and can be addressed by the programme evaluations (ongoing and ex-post-evaluation). For this reason, this comment was considered relevant and an integration in the CE OP2020 has been suggested.
118	When making decision about which projects are to be chosen, balance of the local, regional, national and international effects of the projects should be monitored.	The quality assessment of project proposals considers possible effects on the environment at different spatial levels. For this reason, this comment was considered not relevant and has thus not been integrated in the environmental report.
119	Ensuring transparency inclusive of the access to information during entire project of declaring tenders, selection process, and earmarking funds, but also during monitoring and assessment of the single projects, priority axes and Programme for respecting the economic competition protection.	Transparency is ensured through dedicated methodologies as defined at programme level for assessment, monitoring etc. (Application Manual, Implementation manual etc.). For this reason, this comment was considered not relevant and therefore no integration in the CE OP2020 has been suggested.
120	Monitoring and assessing the OP CE's impact on the environment and health of the population providing details about the monitoring proposed;	This comment is not a suggestion of improvement but rather a finding regarding the content of section 8. Due to this, this comment was considered not relevant and has thus not been integrated in the environmental report.
121	Making modifications of the draft OP CE depending on the outcome of the interdepartmental comment procedure;	The meaning of this comment was not clear. Thus, this comment has not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.
122	Ensuring providing the bidders with sufficient information about environmental issues and possible interconnections among the projects submitted to the environment sector.	The meaning of this comment was not clear. Thus, this comment has not been integrated in the environmental report and no integration in the OP CE 2020 has been suggested.