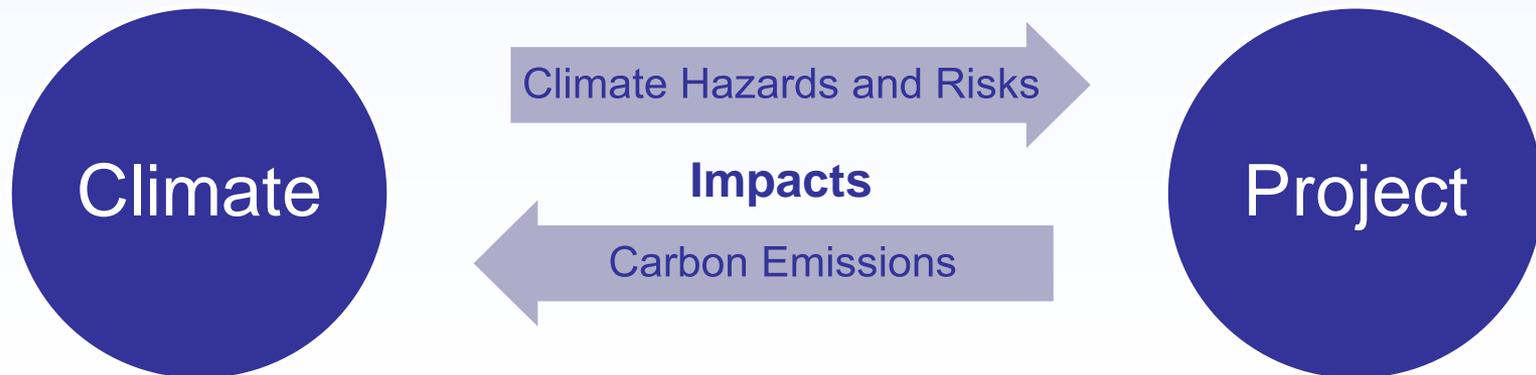


Climate Change Requirements in the 2014 – 2020 Programming Period

Adaptation vs Mitigation

- There are two main components in dealing with climate change: mitigation and adaptation. **Mitigation** is about dealing with the causes of climate change, by reducing greenhouse gas emissions (GHGs). **Adaptation** is about dealing with the inevitable consequences of climate change and attempting to lower the risks.



European Structural and Investment Funds (ESIF)

- 2014 – 2020 is the first programming period when climate considerations are included in the preparation and implementation of programmes and projects:
 - "Climate action objectives will represent at least 20% of EU spending";
 - Mitigation and adaptation are an integral part of sustainable development.

Common Provisions Regulation (EU)
No 1303/2013

The **Common Provisions Regulation** (CPR) lays down a single set of rules covering the EU's five Structural and Investment Funds (the ESI Funds). Amongst other climate change requirements, Article 101 sets the requirements for the information necessary for the approval of a major project, stating the need for ...*“taking into account climate change adaptation and mitigation needs and disaster resilience”*.

Commission Delegated Regulation (EU)
No 480/2014

Annex II of Commission Delegated Regulation (EU) No 480/2014 sets the **quality review criteria** against which the information provided on a major project is assessed. Criterion 6.1 states: *“Demonstrated contribution to the objectives of environmental and climate change policies, in particular targets linked to the Europe 2020 strategy and evidence of account being taken of the risks related to climate change, adaptation and mitigation needs, disaster resilience and of appropriate measures implemented or foreseen to ensure resilience of the project to climate change variability”*

Commission Implementing Regulation
(EU) No 1011/2014

Annex I, Part B of Commission Implementing Regulation (EU) No 1011/2014 sets the **format for the Independent Quality Review (IQR) Report**. Criterion 7.2 States: *“Summarise relevant information on the climate change adaptation and mitigation, and disaster resilience. Give a clear statement whether or not the project meets the relevant criteria for quality review”*

Commission Implementing Regulation
(EU) No 2015/207

CIR 2015/207 lays down detailed rules implementing Regulation (EU) No 1303/2013. This includes the **format for submission of the information on a Major Project** in Annex II (specifically sections D.2, D.3, E.2, E.3 F.1 and F.8 refer to climate change) and the **methodology for carrying out the cost-benefit analysis** in Annex III (specifically sections 2.1.4, 2.3.3 and 2.4 refer to climate change).

Major Project Requirements

- **Consistency with Climate Policy**
 - EU 2020 Strategy Targets
 - National and/or Regional Adaptation Strategy
 - Climate Financing
- **Evaluation of GHG Emissions / Carbon Footprint**
 - How was it undertaken / Methodology
 - What were the results / Footprint and cost
- **Adaptation Vulnerability and Risk Assessment**
 - How was it undertaken / Methodology
 - What were the results / Adaptation Measures

Reflection in the Major Projects Application Form

Within the Major Projects Application Form there are several questions covering the topic of climate change.

The main requirements are summarised within question F.8, there are also references to climate change throughout the other Application Form questions; as climate change is a cross-cutting issue. The topic therefore needs to be properly documented throughout the Application Form and supporting documents.

The relevant sections are:

- B.2 – Categorisation of the project
- D.2 – Option Analysis
- D.3 – Feasibility
- E.2 – Economic Analysis
- E.3 – Risk Assessment
- F.1 – Consistency with environmental policy
- **F.8 Climate change adaptation and mitigation, and disaster resilience**
- G.3 – Risk Assessment
- Appendix 4 – Feasibility Studies and Cost-Benefit Analysis

Reflection in the Major Projects Application Form

Section F.8.1

Consistency with Climate Policy – the links between the project and higher level policy objectives

F.8.1. Explain how the project contributes to climate change targets in accordance with EU 2020 strategy, including information on climate change-related expenditure in line with Annex I to the Commission Implementing Regulation (EU) No 215/2014

Three focus areas:

- EU 2020 Strategy Targets
- National and/or Regional Adaptation Strategy
- Climate Financing
- Particularly relevant for “climate action” projects, meaning “the purpose of the project is to reduce GHG emissions and/or to adapt to climate change”

Reflection in the Major Projects Application Form

Section F.8.1

Consistency with Climate Policy

– EU 2020 Strategy Targets

- greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990 levels
- 20% of energy from renewables
- 20% increase in energy efficiency

https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy_en

These targets are then translated into national targets (more information here: http://ec.europa.eu/europe2020/pdf/annexii_en.pdf)

The Application should state what the national targets are and if the project contributes towards achieving them at all (e.g. through the reduction of GHG emissions, increasing the share of energy from renewables or increasing energy efficiency).

Reflection in the Major Projects Application Form

Section F.8.1

Consistency with Climate Policy

- National and/or Regional Adaptation Strategy
- Information about the status of national (and or regional) adaptation strategies can be found here: <http://climate-adapt.eea.europa.eu/countries>
- The Application should state whether or not a national (and or regional) adaptation strategy is in place and if so whether there is an action plan implemented. In cases where the adaptation strategy is in place, the Application should state if and how the project is in line with the adaptation strategy.

Reflection in the Major Projects Application Form

Section F.8.1

Consistency with Climate Policy

– Climate Financing

- **Section B.2** of the Application Form should contain the correct intervention code(s) for the project (in line with Annex I to EU Commission Implementing Regulation 215/2014)
- Each type of project is allocated an intervention code which has a related percentage coefficient which can be considered as the amount of EU Funds which are spent on climate action (these are either 0%, 40% or 100%)
- The Intervention Field Codes for each type of project can be found here:
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0215&from=DE>
- The purpose of these intervention codes is to track EU financing for climate action, therefore the important figure to present (in Section F.8.1 of the Application Form) is the amount of EU Funds (from the total project cost) which are to be spent on climate change.

Reflection in the Major Projects Application Form

Section F.8.1 – In Summary

Explain the links between the project and higher level climate change policy objectives

Particularly relevant for “climate action” projects.

However, it is noted that there are many Major Projects which are not directly “climate action” projects and therefore might not contribute towards the specific policy objectives and targets. The relevant information needs to be provided.

Reflection in the Major Projects Application Form

Section F.8.2

How have climate change considerations been included in the project.

F.8.2. Explain how climate change related risks, adaptation and mitigation considerations, and disaster resilience have been taken into account.

(As a guidance, please consider the following questions: How were the volume of the Greenhouse Gas (GHG) externality and the external cost of carbon assessed? What is the shadow cost of GHG and how has it been integrated into the economic analysis? Was a less carbon intense or based on renewable sources alternative been considered? Has a climate risk assessment or vulnerability screening been carried out during the preparation of the project? Have climate change issues been taken into account as part of SEA and EIA and have been checked by the relevant national authorities? How did the analysis and ranking of relevant options take into account climate issues? How does the project relate to the national and/or regional strategy for adaptation to climate change? Will the project in combination with climate change have any positive and/or negative impacts on the surroundings? Did climate change influence the location of the project?)⁵¹

Reflection in the Major Projects Application Form

Section F.8.2

Need to address both mitigation and adaptation.

Mitigation – explain how the carbon footprint was calculated and included in the costs of the project. Calculate the relative Greenhouse Gas Emissions (in line with a recognised methodology such as the EIB carbon footprint methodology

http://www.eib.org/attachments/strategies/eib_project_carbon_footprint_methodologies_en.pdf) and monetise the related costs or benefits of the change in emissions in the CBA, using the shadow price of carbon.

Needs to be consistent with Section E.2 (and also potentially D.2 and D.3) of the Application Form

Reflection in the Major Projects Application Form

Section F.8.2

Adaptation – The resilience of the project

Explain **when** in project development climate change issues were considered and **how** this was done.

Explain the **Climate Change Adaptation Vulnerability and Risk Assessment** process.

- The process of managing climate adaptation issues for a project,
- Involves identifying which climate hazards the project is vulnerable to, assessing the level of risk and integrate adaptation measures to reduce that risk to an acceptable level.
- The process starts from the feasibility and option analysis stage and should be integrated into all subsequent stages of project development.
- The results are used to inform decision making as the project develops.

Reflection in the Major Projects Application Form

Section F.8.2

Adaptation – The resilience of the project

The explanation of the Climate Change Adaptation Vulnerability and Risk Assessment process should cover the following aspects as a minimum:

- Information on the relevant climate change factors
- Information about the vulnerability of the project to those hazards
- An assessment of current and future risk
- Identification and assessment of adaptation measures
- Reference to climate forecasts and data sources

Needs to be consistent with Sections D.2, D.3, E.3 (and potentially E.2) of the Application Form.

Then links with Section F.8.3 of the Application Form

Reflection in the Major Projects Application Form

Section F.8.3

What were the results of the Climate Change Adaptation Vulnerability and Risk Assessment – Adaptation Measures

F.8.3. Explain what measures have been adopted to ensure resilience to current climate variability and future climate change within the project

(As a guidance, please consider the following questions: how was climate change taken into consideration when designing the project and its components, for example with regard to external forces (e.g. wind load, snow load, temperature differences) and impacts (e.g. heat waves, drainage, risk of flooding as well as prolonged dry periods affecting e.g. soil characteristics))

Follows on from Section F.8.2

Reflection in the Major Projects Application Form

Section F.8.3

Explain adaptation measures included in the project.

Any identified significant risks need to be addressed by the assessment and integration of adaptation measures into the project.

Adaptation measures can include:

- structural measures (such as changes to the physical design of a project) and
- non-structural measures (such as measures related to operation and maintenance or monitoring).

Measures should be demonstrated to adequately reduce climate related risks to an acceptable level.

Additional guidance is available...

Reflection in the Major Projects Application Form – Summary

Section F.8.1 – consistency with climate policy

Section F.8.2 – how has climate change mitigation and adaptation and disaster resilience been addressed in the project

Section F.8.3 – what adaptation measures are included in the project as a result

Clear and direct links to other Sections of the Application Form:

B.2 – Project Categorisation

D.2 – Option Analysis

D.3 – Feasibility

E.2 – Economic Analysis

E.3 – Risk Assessment

F.1 – Environmental Policy

G.3 – Risk Assessment

Integration into Project Development

Outline of the integration of climate change requirements into the development stages of major projects

Project development cycle

Strategy

- Programming (B.4)
- Sector strategies ((B.4)
- Environment and climate change policy (F.1, F.8.1)
- Strategic site and technology selection (D.3, F.8)
- Pre-feasibility studies
- Business Model Development
- SEA (F.2)

Feasibility

- Demand analysis (D.1)
- Option Analysis (D.2, F.8)
- Feasibility studies (D.3, F.8)
- Site selection (D.3, F.8)
- Technology (D.3, F.8)
- Conceptual design (B.3)
- Financial analysis (E.1)
- Economic analysis (E.2)
- Risk and sensitivity (E.3)
- EIA Screening (F.3, F.8)
- CBA (E.2)

Design

- Main/Final Design (B.3)
- EIA (F.3) + (F.4-7)
- Development consent (F.3)

Procure/build

- Timetable, main categories of work (H.1)
- Project maturity, public procurement (H.2)

Operate

- Asset management
- Operation & maintenance
- Monitoring and control

Decommission

- Decommissioning
- End of asset life

Adaptation - vulnerability and risk assessment - enhancing the resilience to the adverse impacts of climate change

Strategy

- Strategic climate vulnerability screening - using the same principal steps as for the detailed vulnerability and risk assessment

Feasibility, Design

- Vulnerability and risk assessment as outlined in this fact sheet
- Option analysis, climate risk and adaptation (F.8.2, D.2.1-2)
- Measures ensuring resilience to current/future climate (F.8.3)
- Technical aspects e.g. location and design (B.3, D.3.2)
- Environment and climate change aspects (D.3.3, F.1.1)
- Economic analysis (E.2.1)
- Risk assessment and sensitivity analysis (E.3.1-4)

Construction, operation, decommission

- Implementation of adaptation measures in construction and operation
- Monitoring of critical climate hazards
- Regular review of the climate hazards (which may change over time) updating of the risk assessment, review of the structural and non-structural adaptation measures, and reporting to the project owner and other as required

Mitigation - reducing the emission of greenhouse gas - EIB Carbon Footprint methodology and carbon shadow prices in CBA

Strategy

- Link to climate policy and GHG emission targets
- Less carbon intensive solutions in planning

Feasibility, Design

- EIB Carbon Footprint methodology, CO₂ shadow prices (E.2)
- Contribution to climate targets in EU2020 Strategy including the national targets of the Efforts Sharing Decision (F.8.1)
- Consideration of less carbon intensive options (F.8.2, D.3)
- Environment and other aspects (D.3.3, D.3.4, F.1.1)
- Economic analysis (E.2.1)

Construction, operation, decommission

- Reduction of GHG emissions in construction and operation
- Verification of actual GHG emissions

Project Development Cycle – Feasibility Studies – Option Analysis

Climate Change Adaptation

- Relative vulnerability of options - assess whether one option is more or less vulnerable than another option.
- Relative sensitivity of technical options.
- Relative exposure of location options.
- Based on expert judgement and understanding of current and future climate

Climate Change Mitigation

- Carbon footprint of each project alternative / option calculated and these figures used in the assessment of options

Project Development Cycle – Design

Climate Change Adaptation

- Full Risk Assessment for all vulnerabilities – assessing probability and severity
- Part of an overall Risk Assessment
- Based on expert judgement and sound data regarding current and future climate
- Integration of adaptation measures into design and operation
- Reduce risk to acceptable level

Climate Change Mitigation

- Attempt to reduce GHG emissions through design
- Carbon footprint of final technical solution
- Using shadow price of carbon, monetise emissions and include in the CBA

Project Development Cycle – Implementation

Climate Change Adaptation

- Implementation of adaptation measures during construction and operation
- Monitor changes in climate
- Review effectiveness of measures
- Manage risks

Climate Change Mitigation

- Attempt to reduce GHG emissions during construction and operation
- Verification of ex-ante carbon footprint with actual emissions figures

Climate Change and Major Projects in the 2014-2020 Programming Period: Framework of Available Guidance



Overview of Requirements for Addressing Climate Change in Major Projects

<p>DG CLIMA - Publication on Climate Change and Major Projects Click link</p>		<p>This 16 page publication released by DG Climate Action in 2016, provides Major Projects developers with an outline of the climate change related requirements and guidance for major projects in the 2014-2020 programming period. This fact sheet is first and foremost intended for those involved in the various development stages of major projects. However, the methodology presented is not limited to major projects. It has a broader scope and can be usefully applied for a wider range of projects.</p>
<p>JASPERS Guidance – Compilation of Climate Change Related Requirements – V.1 Click link</p>		<p>This 3 page document from JASPERS summarises the climate change related requirements for Major Projects that come from the hierarchy of legislation (see below) and provides some guidance as to what those requirements mean for projects. This document is intended as an initial overview of the requirements, summarised into contribution to policy objectives, mitigation and greenhouse gases, and adaptation and resilience. This is then further supported by more in-depth guidance documents describing how these requirements should be met.</p>

Contribution of the Project to Climate Change Policy Objectives

<p>Commission Implementing Regulation (EU) No 215/2014 Click link</p>		<p>In order to adopt a common methodology for determining the level of support for climate change objectives from each of the five ESI Funds, the Commission established weightings to be applied to each category of investment. These weightings are either 0%, 40% or 100% according to the intervention code(s) for the project. The standard weightings should be used to ensure a harmonised approach to tracking climate change related expenditure. The intervention codes and weightings are set out in CIR No 215/2014 (specifically Article 1-3 and Annex I).</p>
<p>EU 2020 Strategy Click link</p>		<p>Europe 2020 is the EU's growth strategy for the coming decade. It sets out 3 targets relevant to climate change, related to the reduction of greenhouse gases, increasing the share of energy from renewables and increasing energy efficiency. Country-specific targets can be found on the European Semester website (link).</p>
<p>National / Regional Climate Change Adaptation Strategies Click link</p>		<p>The most up-to-date versions of National and/or Regional Climate Change Adaptation Strategies can be obtained from the national authorities responsible for their production. In addition the European Climate Adaptation Platform Climate-ADAPT has information about adaptation policies, impacts and vulnerabilities from the local to transnational level. For more information see the Climate-ADAPT website (link).</p>

Mitigation and Greenhouse Gases

<p>EIB – Methodologies for the Assessment of Project GHG Emission Variations - V10.1, 2014 Click link</p>		<p>EIB Project Carbon Footprint Methodologies presents a detailed approach to calculating the GHG emissions of projects. The EIB methodology is the recommended methodology to follow.</p>
<p>JASPERS Working Paper – Calculation of GHG Emissions in Waste and Waste-to-Energy Projects 2013 Click link</p>		<p>The paper describes a methodology for the quantification of GHG emissions in projects developing individual facilities or groups of facilities for municipal waste management.</p>

Adaptation and Resilience

<p>JASPERS Working Paper – The Basics of Climate Change Adaptation Vulnerability and Risk Assessment – V.1 Click link</p>		<p>This JASPERS Working Paper provides advice about the basic principles of Climate Change Adaptation Vulnerability and Risk Assessment for projects and what is expected in good practice.</p>
<p>DG CLIMA – Non-paper Guidelines for Project Managers: Making vulnerable investments climate resilient Click link</p>		<p>The DG CLIMA “non-paper” sets out a detailed methodology for Climate Change Adaptation Vulnerability and Risk Assessment and provides guidance as to how this can be undertaken.</p>
<p>EUFIWACC – Integrating Climate Change Information and Adaptation in Project Development Click link</p>		<p>This note has emerged as a result of the experience of practitioners and provides lessons learnt with regard to integrating climate change adaptation considerations into the development of projects.</p>

Other Related Documents

<p>DG REGIO – Guide to Cost Benefit Analysis of Investment Projects Click link</p>		<p>The DG REGIO CBA Guide provides practical guidance on Cost Benefit Analysis for Major Projects. It illustrates common principles and rules for application of the CBA approach into the practice of different sectors. It also includes references to climate change mitigation and adaptation and how they can be considered in CBA.</p>
<p>DG ENV – Guidance on Integrating Climate Change and Biodiversity in SEA Click link</p>		<p>Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (“Strategic Environmental Assessment” – “SEA Directive”) requires certain public plans and programmes to undergo an environmental assessment before they are adopted. The aim of this Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment is to improve the consideration of these issues in strategic environmental assessments (SEAs) carried out across the EU Member States.</p>
<p>DG ENV – Guidance on Integrating Climate Change and Biodiversity in EIA Click link</p>		<p>The Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment, produced by DG Environment in 2013, aims to help Member States improve the way in which climate change and biodiversity are integrated in Environmental Impact Assessments (EIAs) carried out across the EU.</p>

Selected References from the Legal Basis

<p>Common Provisions Regulation (EU) No 1303/2013 Click link</p>	<p>Commission Delegated Regulation (EU) No 480/2014 Click link</p>	<p>Commission Implementing Regulation (EU) No 1011/2014 Click link</p>	<p>Commission Implementing Regulation (EU) No 2015/207 Click link</p>
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- **Framework of Available Guidance Documents** (not exhaustive)
- Includes Guidance from various sources – European Commission, EIB, JASPERS, etc.
- Links to selected references from the legal basis
- Two new Guidance Documents from JASPERS:
 - *Compilation of Climate Change Related Requirements*
 - *The Basics of Climate Change Adaptation Vulnerability and Risk Assessment*

Major / Minor
EU Funded / Other Funding Source
Greenfield Project / Development of Existing
Mature Project / Initial Concept Idea

Climate Change Adaptation Vulnerability and Risk Assessment is the process of managing climate adaptation issues for a project. Evaluation of Greenhouse Gas emissions is about considering resource efficiency.

These are not just Commission requirements, their purpose is to develop sound sustainable infrastructure, in everybody's interests.

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JASPERS Website:

<http://www.jaspers-europa-info.org/>

JASPERS Networking Platform

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For info or further questions on this workshop and the activities of the JASPERS Networking Platform, please contact:

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