

Cultural heritage in SEA/EIA

Ljubljana, 16 October 2017



A few words about who we are....

Partners and governance

JASPERS

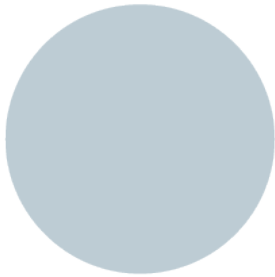
Joint Assistance to Support Projects in European Regions

- **Partnership between the European Commission (EC), the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD)**
- **Managed by the EIB on the basis of a Framework Partnership Agreement with the EC**
- **Supervised by a Steering Committee composed by representatives of the EIB, EC and EBRD**
- **Coordinated with EC and beneficiary countries through periodic tri-partite meetings and a annual stakeholders' meeting**
- **Established in 2006 for the Programming Period 2007-2013, first extension for period 2014-2020**
- **Assistance is free of charge, as a service to the member states**



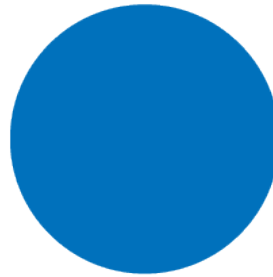
How we work

Three pillars of services



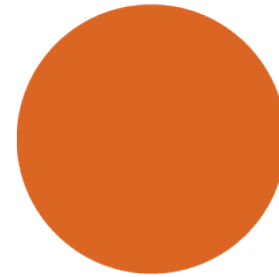
Advisory

Guidance in the preparation of projects, with upstream involvement, in-line with ERDF-regulation



Capacity Building

Proximity to beneficiaries and knowledge sharing with hands-on approach and training



IQR

Final endorsement for project approval as per article 102.1 of CPR

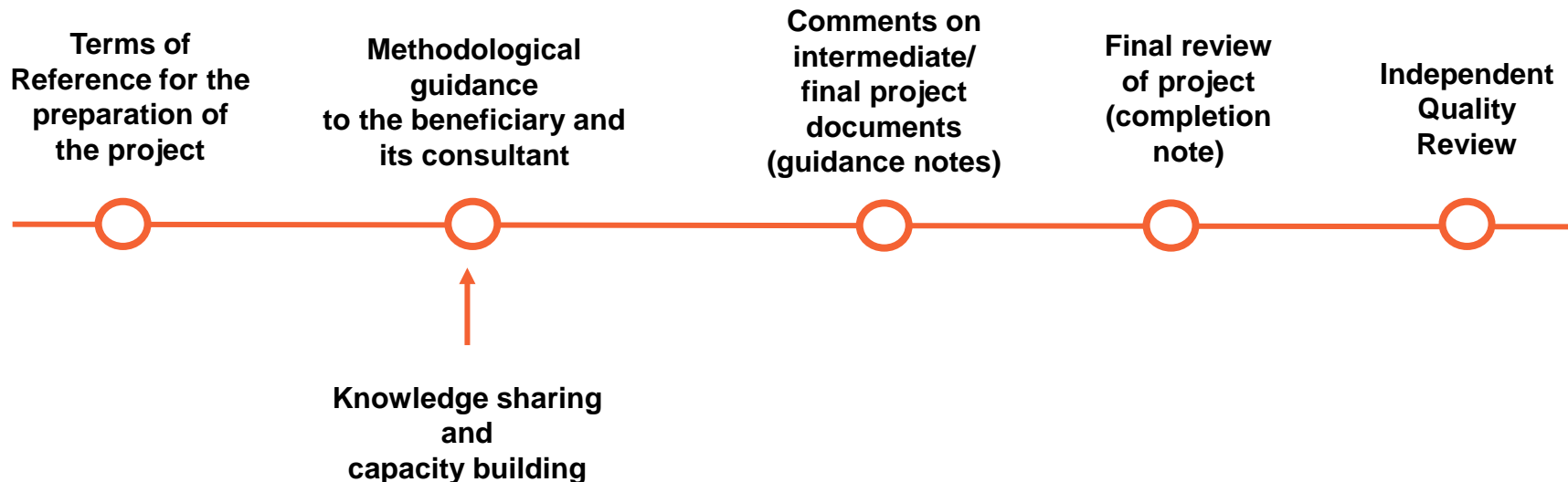
Support

Comprehensive support to projects

Support for strategic planning and to solve sectorial issues

Key messages:

- Upstream involvement
- Hands-on approach
- Proximity to beneficiaries
- Support is linked to EU ERDF funding and projects being in-line with national Operational programs



Operational Principles

- **Focus on Major Projects , but increasing support for**
 - **non-major projects on strategic sectors (e.g. R&D, innovation, urban (ITI) and energy efficiency)**
 - **upstream support to beneficiaries at the level of sector strategies**
 - **horizontal support when needed (for example in State-aid issues, CBA methodology) to facilitate project preparation and approval**
 - **capacity building embedded as much as possible into project support, with dedicated stand alone activities when relevant and needed**
- **Local presence**

- 1** Support for the preparation of sector strategies and Master Plans
- 2** Support to project screening and prioritisation to maximise effectiveness of available funds in a sector
- 3** Support to project preparation through methodological advice and review and comments on intermediate and final project document
- 4** Capacity building through hand-on approach during project preparation support, dedicated training events, train-the-trainers workshop, and working papers
- 5** Integrated support in cross-sector projects (e.g. urban development projects in the context of the Smart Cities concept)
- 6** Support to the preparation of programmes and schemes (e.g. calls for proposals for non-Major projects, energy efficiency schemes)
- 7** Support for the definition and standardisation of project approval criteria and clarification of issues arising during the approval process
- 8** Support for the removal of bottlenecks to realise projects (e.g. advice on State-aid)
- 9** Methodological guidance (e.g. on feasibility studies, cost-benefit analysis, EIA/SEA and climate change adaptation)
- 10** Appraisal of projects to ensure their soundness, quality, and compliance with relevant regulations to facilitate EC approval
- 11** Support to project implementation through advice on procurement strategies, draft tender documents and establishment of Projects Implementation Units
- 12** Preparation of technical assessments to serve as the basis for policy decisions and regulations
- 13** Integrated support in cross-sector projects (e.g. urban development projects in the context of the Smart Cities concept)

Presentation outline

- ❑ SEA Directive and impacts to cultural heritage
- ❑ Lessons Learnt for Slovenian Transport Strategy
- ❑ EIA Directive and impacts to cultural heritage
- ❑ ECJ case studies

Cultural Heritage in SEA

When screening

3.5. Member States shall determine whether plans or programmes referred to in paragraphs 3 and 4 are likely to have significant environmental effects either through case-by-case examination or by specifying types of plans and programmes or by combining both approaches. For this purpose Member States shall in all cases take into account relevant criteria set out in Annex II, in order to ensure that plans and programmes with likely significant effects on the environment are covered by this Directive.

DIRECTIVE 2001/42/EC

21.7.2001  Official Journal of the European Communities L 197/37

ANNEX II

Criteria for determining the likely significance of effects referred to in Article 3(5)

1. The characteristics of plans and programmes, having regard, in particular, to:
 - the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources,
 - the degree to which the plan or programme influences other plans and programmes including those in a hierarchy,
 - the coherence of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development,
 - environmental problems relevant to the plan or programme,
 - the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).
2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:
 - the probability, duration, frequency and reversibility of the effects,
 - the cumulative nature of the effects,
 - the transboundary nature of the effects,
 - the risks to human health or the environment (e.g. due to accidents),
 - the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected),
 - **special natural characteristics or cultural heritage** values,
 - intensive land-use,
 - the effects on areas or landscapes which have a recognised national, Community or international protection status.

Annex II...

Criteria for determining the likely significance of effects referred to in Article 3(5):

1...

2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to

....

— **special natural characteristics or cultural heritage**


....

Cultural Heritage in SEA

When doing an SEA

5.1. Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated. The information to be given for this purpose is referred to in Annex I.

DIRECTIVE 2001/42/EC

L 157/36  Official Journal of the European Communities 28.7.2001

ANNEX I

Information referred to in Article 5(1)

The information to be provided under Article 5(1), subject to Article 5(2) and (3), is the following:

(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;

(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;

(c) the environmental characteristics of areas likely to be significantly affected;

(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental sensitivity, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;

(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;

(f) the likely significant effects (1) on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climate, landscape, material assets, cultural heritage (including architectural and archaeological heritage), landscape and the interrelationship between the above factors;

(g) the measures envisaged to prevent, reduce and as far as possible offset any significant adverse effects on the environment of implementing the plan or programme;

(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties such as technical deficiencies or lack of known facts encountered in compiling the required information;

(i) a description of the measures envisaged concerning monitoring in accordance with Article 10;

(j) a non-technical summary of the information provided under the above headings.

(1) These effects should include secondary, cumulative, synergistic, direct, indirect and compound pressures and temporary, positive and negative effects.

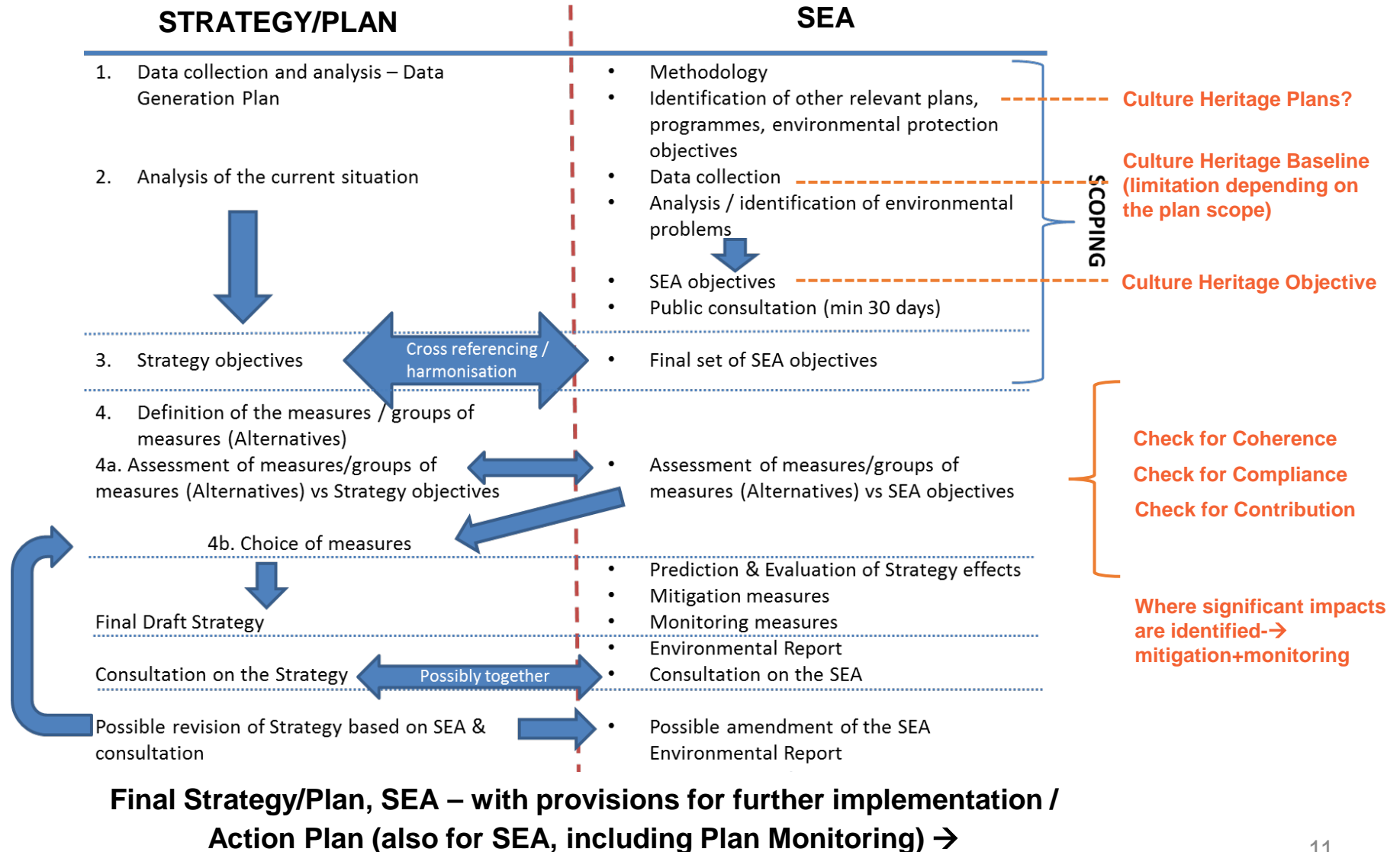
Annex I

The information to be provided under Article 5(1), subject to Article 5(2) and (3), is the following:

- e) the environmental protection **objectives**, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) the likely significant effects (1) on the environment, including on issues such asmaterial assets, cultural heritage **including architectural and archaeological heritage**, landscape and the interrelationship between the above factors;

Cultural Heritage in SEA

Good Practice steps when doing an SEA



When doing an SEA.... you can use the opportunity to improve the “cultural performance” of the plan by:

- **Including in the SEA Objectives of cultural nature**
- **Investigating whether the plans objectives could be improved in terms of contributing positively or being coherent with the SEA Objectives**

This is facilitated through scoping and consultations at the scoping stage (if so foreseen)

SEA as an early warning system for eventual impacts and cumulative impacts:

- **Assessing the plan (measures/actions) for impacts**

Important elements: scoping and good communication with the competent cultural authorities at an early stage

- **Mitigation measures**

When they refer to project stage making sure that they are subsequently considered early in project development

- **Monitoring!**

- ✓ **Who has the responsibility for monitoring?**
- ✓ **What could effective monitoring be?**
- ✓ **Who follows up on the monitoring?**
- ✓ **What happens when things do not go as expected?**

Case Study

Slovenian Transport Strategy

The general objectives of the transport strategy were:

- ☐ to improve mobility and accessibility;
- ☐ to improve supply to the economy;
- ☐ to improve traffic safety and protection;
- ☐ to reduce energy consumption;
- ☐ to reduce costs to users and operators;
- ☐ to reduce environmental burdens.

Case Study

Slovenian Transport Strategy

The specific objectives of the transport strategy were:

- ❑ Specific objective no. 1: Improving transport connections and harmonisation with neighbouring countries;
- ❑ Specific objective no. 2: Improving national and regional connections within Slovenia;
- ❑ Specific objective no. 3: Improving the accessibility of passengers to the main cities of agglomerations and within them;
- ❑ Specific objective no. 4: Improving the organisational and operational structure of the transport system to ensure efficiency and system sustainability.

Sub – objectives were also defined such as:

Sub-objective 4e: Environmental impact reduction/mitigation

Case Study

Slovenian Transport Strategy

The environmental Objectives for SEA were:

- ❑ Ensure sustainable management of land and protection of soil
- ❑ Prevent exploitation of natural resources by using at least 70% of recycled materials from construction waste generated in the construction and reconstruction of transport infrastructure
- ❑
- ❑ **Objective 11: Preservation of the scope and characteristics of cultural heritage structures and areas.**
- ❑ Ensuring the preservation of extraordinary landscapes and landscape areas with distinctive features at the national level and a quality landscape image.

Case Study

Slovenian Transport Strategy

The measures of the Plan/Strategy were assessed against the environmental objectives of the SEA using the following ranking:

Level of compliance	Explanation	Numerical evaluation
	The objectives are very compliant.	3
	The objectives are partly compliant.	2
	The connection between the objectives is vague.	1
	There is no connection between the objectives.	0
	The objectives are not compliant.	-1

According to the report in most cases the measures of the plan were either vaguely connected or had no connection with the objectives of the SEA

Let's try to repeat the exercise today....

Case Study

Slovenian Transport Strategy

Cultural Baseline Summary:

- ❑ The Register of Cultural Heritage at the Ministry of Culture numbers 32,035 units of heritage. The number of registered units of cultural heritage has been increasing recently, particularly the number of registered archaeological sites.
- ❑ Three monuments (Plečnik Žale Cemetery, the Franja Partisan Hospital, Memorial Church of the Holy Spirit in Javorca) have European Heritage Labels, and another two (pre-historic pile dwellings in Ig and Ljubljana Marshes, mercury mining tradition in Idrija) have been added to the UNESCO World Heritage list in the cultural heritage category.

Case Study

Slovenian Transport Strategy

Assessment Steps:

- Cultural Heritage status and existing threats and risks were defined at a high level
- The likelihood of negative impacts was assessed at specific objective level.
- The need for mitigation measures or additional assessments was concluded for specific measures?
- General mitigation measures and specific mitigation measures were defined per specific objective?
- Monitoring indicators were recommended?

Case Study

Slovenian Transport Strategy

Assessment Results:

- **Cultural heritage**

The evaluation criteria and methodology for environmental objective 11 are described in the table below:

Preserve the scope and qualities of cultural heritage facilities and areas.

Indicator/evaluation criteria	Evaluation of grades
<p>- probability of the route running across registered units of cultural heritage <i>(integrating measures for road, rail and public transport on units of cultural heritage may significantly endanger the integrity of heritage and modify its qualities. Especially endangered are cultural landscapes, and historical landscapes of areas of architectural heritage and archaeological sites)</i></p> <p>- probability of destroying archaeological remains <i>(integrating measures for road, rail and public transport on units of cultural heritage means encroachment upon soil and thus great probability of destroying archaeological remains)</i></p>	<p>A – no impact/positive impact: The anticipated measures do not pass through registered units of cultural heritage. Since the open space will not be encroached upon, archaeological remains will not be destroyed.</p> <p>B – insignificant impact: There is a probability that measures will pass through registered units of cultural heritage. Since the route is sited in or along existing transport corridors, the probability of activities in registered units of cultural heritage and destruction of archaeological remains is low. With the observation of legal bases, the impact on the qualities of registered units of cultural heritage will be insignificant.</p> <p>C – impact is insignificant due to the implementation of mitigation measures: The probability of measures passing through registered units of cultural heritage and thus of the reduction of</p>

Case Study

Slovenian Transport Strategy

Assessment Results:

encroachment upon soil and thus great probability of destroying archaeological remains)

C – impact is insignificant due to the implementation of mitigation measures: The probability of measures passing through registered units of cultural heritage and thus of the reduction of their size is high. Despite the observation of legal bases, the impact of measures on the qualities of cultural heritage will be significant. Due to activity in the open space, the probability that archaeological remains will be destroyed is high. Mitigation measures must be observed to reduce the impact.

D – significant impact: The probability of measures passing through registered units of cultural heritage and thus of the reduction of their size is very high. Despite the observation of legal bases, the impact of measures on the qualities of cultural heritage will be considerable. Due to activity in the open space, the probability that archaeological remains will be destroyed is very high. There are no mitigation measures to reduce the impact.

E – destructive impact: The impact of measures on the qualities of registered units of cultural heritage will be destructive. The impact of measures on archaeological remains will also be destructive.

X – determination of the impact is not possible: The impact of measures on registered units of cultural heritage and archaeological remains cannot be determined due to the lack of data

Case Study

Slovenian Transport Strategy

Mitigation Measures:

Specific mitigation measures

Sub-objectives	Specific mitigation measures
1a	In the spatial integration of measures R.1, R.3, R.8 and Ro.1, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
1b	In the spatial integration of measures R.1, R.3, R.6, R.7, R.8 and Ro.1, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
1c	In the spatial integration of measures R.1, R.3, R.5, R.8, R.10 and Ro.12, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.a	In the spatial integration of measures R.5, Ro.1, Ro.13, Ro.14, Ro.16, Ro.19 and Ro.20, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.b	In the spatial integration of measures R.3, Ro.4, Ro.5 and Ro.14, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.c	In the spatial integration of measures R.3, R.4, Ro.6, Ro.7, Ro.8, Ro.13, Ro.15, U.1, U.2 and U.4, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.d	In the spatial integration of measure Ro.21, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.e	In the spatial integration of measure Ro.9, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.

Case Study

Slovenian Transport Strategy

Mitigation Measures:

2.f	In the spatial integration of measures Ro.17, Ro.18 and Ro.9, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.g	In the spatial integration of measures RR.1, R.3, R.5, Ro.10, Ro.11, Ro.12, Ro.13, Ro.14 Ro.19, U.1, U.2, Ro.11, Ro.15, and U.4 – railway, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
2.h	In the spatial integration of measures Ro.7, Ro.9, Ro.10, Ro.11, Ro.19, Ro.20 and Ro.21, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
3.a	In the spatial integration of measures R.1, R.3, R.5, Ro.12, U.1, U.2 and U.4 – railway, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
3.b	In the spatial integration of measures R.8, R.10 and Ro.16, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.
3.c	In the spatial integration of measures R.1 and Ro.17, locations outside units of cultural heritage must be sought. Especially the integrity and features of cultural landscapes, areas of influence of architectural heritage and archaeological remains must be preserved.

Case Study

Slovenian Transport Strategy

Monitoring Plan:

Environmental objective	Proposed environmental indicators
Environmental objective 1: Ensure sustainable management of land and protection of soil	Land cover and land use [TP01]
Environmental objective 3: Ensure the attainment of long-term objectives for annual quantities of pollutant emissions determined for the transport sector in the Operational programme for complying with national emission ceilings for atmospheric pollutants	<ul style="list-style-type: none"> - Emissions of gases that cause acidification [ZR09] - Emissions of particulates in the air [ZR15] - Emissions of ozone precursors [ZR10]
Environmental objective 4: Adapt transport infrastructure to climate change and reduce annual quantities of greenhouse gas emissions below the target values determined for the transport sector in the Operational programme of measures to reduce greenhouse gas emissions by 2020	Greenhouse gas emissions [PS03]
Environmental objective 5: Limit the effects of the pressure of transport infrastructure on surface water, groundwater, brackish water, coastal waters and sources of drinking water	Potential risk to waters in the event of accidents during transport of hazardous substances
Environmental objective 6: Ensure the cohesion of populations and conservation of biodiversity	Collisions with wild animals
Environmental objective 7: Protect areas with nature protection status against activities with considerable impacts	Habitat fragmentation [SEBI013]
Environmental objective 9: Reduce the pollution of the environment by noise from transport and approximate to the levels recommended by the World Health Organisation	Exposure to noise from transport [PR18]
Environmental objective 10: Improve social cohesion, traffic safety and sustainable mobility	<ul style="list-style-type: none"> - Investment in transport infrastructure [PR03] - Volume and structure of passenger transport and traffic [PR01] - Number of accidents, fatalities and persons injured in road and rail transport [PR10]

Amended EIA Directive preamble:

- **(16) For the protection and promotion of cultural heritage comprising urban historical sites and landscapes, which are an integral part of the cultural diversity that the Union is committed to respecting and promoting in accordance with Article 167(4) TFEU, the definitions and principles developed in relevant Council of Europe Conventions, in particular the European Convention for the Protection of the Archaeological Heritage of 6 May 1969, the Convention for the Protection of the Architectural Heritage of Europe of 3 October 1985, the European Landscape Convention of 20 October 2000, the Framework Convention on the Value of Cultural Heritage for Society of 27 October 2005 can be useful. In order to better preserve historical and cultural heritage and the landscape, it is important to address the visual impact of projects, namely the change in the appearance or view of the built or natural landscape and urban areas, in environmental impact assessments.**

Amended EIA Directive article 3:

Article 3

1. The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case ~~and in accordance with Articles 4 to 12,~~ the direct and indirect **significant** effects of a project on the following factors:

- (a) ~~human beings, fauna and flora~~ **population and human health;**
- (b) **biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;**
- ~~(b)~~ (c) **land, soil, water, air and climate and landscape;**
- ~~(c)~~ (d) **material assets, cultural heritage and the landscape;**
- (e) **the interaction between the factors referred to in points (a) to (d).**

Amended EIA Directive , Selection Criteria in Annex III:

2. Location of projects

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, ~~having regard to~~, with particular regard to:

.....

- (vii) densely populated areas;
- (viii) landscapes and sites of historical, cultural or archaeological significance.

Amended EIA Directive , Annex IV:

INFORMATION REFERRED TO IN ARTICLE 5(1)

(INFORMATION FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT)

.....

~~3.~~ 4. A description of the ~~aspects of the environment~~ factors specified in Article 3(1) likely to be significantly affected by the proposed project, including in particular: population, human health, ~~flora, fauna~~ biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, ~~climatic factors~~ climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological ~~heritage aspects~~, and landscape and the interrelationship between the above factors.

Amended EIA Directive , Annex IV:

INFORMATION REFERRED TO IN ARTICLE 5(1)

(INFORMATION FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT)

.....

~~4.~~ 5. A description of the likely significant effects of the ~~proposed~~ project on the environment resulting from, *inter alia*:

- (a) the *construction and* existence of the project, *including, where relevant, demolition works*;
- (b) the use of natural resources, *in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources*;
- (c) the emission of pollutants, *noise, vibration, light, heat and radiation, the creation of nuisances, and the ~~elimination~~ disposal and recovery of waste*;
- (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

Good Practices in EIA, importance of scoping:

- ❑ Key elements include early consultation with all relevant parties and agreement on the scope and expectations of the impact assessment before the assessment commences. It is also important to identify possible negative impacts very early on in the process, in order to inform both the project design in a pro-active rather than reactive manner.
- ❑ In sensitive cases, the starting point should be to set out the scope of work necessary for an EIA which will provide the evidence for decision making. Early consultation with relevant parties, including any affected community, is important.
- ❑ Ideally the scoping Report should be agreed with all relevant parties and should make it clear what is to be done, why and how, when and what are the expected outputs. The scoping report should consider all relevant outcomes of related SEAs
- ❑ The Scoping Report should also give (as far as feasible) a clear indication of what knowledge exists about the known cultural heritage sites – how good is the information base and what level of confidence may be placed on the assessment.

Good Practices in EIA, reporting stage:

- ❑ It is also important to ensure that the assessment is undertaken by suitably qualified experts, and that their expertise matches the demands of the site.
- ❑ Effects on cultural heritage may be adverse or beneficial. It is necessary to identify all effects.
- ❑ There is sometimes a tendency to see impacts as primarily visual.
- ❑ Direct impacts are those that arise as a primary consequence of the proposed development... SEA can be used as a tool to avoid direct impacts but **avoiding direct impacts might not be enough!**
- ❑ **Indirect impacts** occur as a secondary consequence of construction or operation of the development, and can result in physical loss or changes to the setting of an asset beyond the project footprint.

How much do we know about the project at the EIA stage?

EIA Directive , Case Law and Cultural Heritage:

JUDGMENT OF THE COURT (Second Chamber)

20 November 2008 (*)

(Failure of a Member State to fulfil obligations – Directive 85/337/EEC –Assessment of the effects of projects on the environment – Consent given without an assessment)

In Case C-66/06

<http://curia.europa.eu/juris/documents.jsf?num=C-66/06>

EIA Directive , Case Law and Cultural Heritage:

European Court ruled in case C-50/09 the European Commission vs. Ireland that Ireland had failed to fulfil its obligations under the Environmental Impact Assessment Directive as it had (amongst other things) excluded demolition works from the scope of legislation transposing the Directive into Irish Law. In other words demolition of a significant heritage building or structure where the works would constitute a significant impact on cultural heritage should have required an Environmental Impact Assessment all along.,

<http://curia.europa.eu/juris/document/document.jsf?text=&docid=84209&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=1588602>



THANK YOU

www.jaspers.eib.org

www.jaspersnetwork.org

